QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE IN THE NETHERLANDS

Quality management of medical specialist care in The Netherlands

an explorative study of its nature and development

Kwaliteitsmanagement
van medisch specialistische zorg
in Nederland

een verkennende studie naar aard en ontwikkeling

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To my parents

Table of contents

4 The development of quality management of medical specialist care through quality systems within the profession 101

Introduction

In January 1985, the author of this study was employed as a scientific staff member at CBO, the Dutch National Organisation for Quality Assurance in Hospitals. His main job was to support peer review committees of medical specialists in hospitals. The task proved to be challenging and was broadened to an active involvement in the consensus development programme run by CBO's scientific council. Both peer review and guideline development through consensus conferences turned out to be far more complex activities than might be expected at first sight. Hence over the years the ambition emerged to study these phenomena more thoroughly. From the beginning it was clear that peer review and guideline development are only two of the various systematic activities the medical profession has developed to manage the quality of specialist care. This study is rooted in the curiosity to understand these activities and in its essence the study tries to provide an answer to two questions:

- What is quality management of medical specialist care?
- How does it develop?

To find an answer to these questions, various theories were studied and used as an explanatory model for the observed phenomena, ranging from theories on quality assurance (in medicine) and quality management (in service industry) to more general theories from the administrative sciences (i.e. organisational development of hospitals), sociology (i.e. professionalisation theory), health system development, innovation diffusion theory and theories on organisational and behavioural change. Gradually the following insights for this study emerged and were taken as the underlying assumptions:

- Existing activities performed by medical specialists to plan and control their care delivery can be described in terms of the theory of quality management as applied in service industry.
- The policies and infrastructure in which these activities are embedded can be understood from the perspective of professionalisation of medical specialists and the organisational development of hospitals in their socio-economic context.
- These policies and infrastructures constitute explanatory factors for the nature and scope of the quality management of medical specialist care.
- Success and failure of the implementation of quality management of medical specialist care in hospitals can be understood from the perspective of innovation diffusion theory.

These insights strengthened the notion that quality is a relative concept and quality management the product of a given context at a certain moment in time. The more reason to explore not only manifestations of quality management of specialist care itself, such as peer-review studies and practice guidelines, but also the professional, organisational and health policy context in which these manifestations occur.

To answer the research questions the following will be done:

- The theory of quality management will be examined.
- The nature and development of quality management of medical specialist care as reflected in systematic programmes and activities in The Netherlands will be discussed from the perspective of professionalisation of the medical specialties and organisational development of hospitals in relation to the socio-economic context.
- Empirical material on a selected number of areas of medical specialist care will be described and analyzed from the perspective of quality-management theory.
- The development of quality management of specialist care as reflected in the empirical material will be described and analyzed from the perspective of innovation diffusion theory.

Although the study is extensive in its coverage of the central questions, it is also limited by the decision to focus on quality management of medical specialist care, starting with activities that are actually performed. The exploration focuses on what is, rather than on what should be. This implies that this study does only to a limited extent cover issues as patient satisfaction and patient perspectives on care and the interactions between medical specialists and nurses, allied health professions and general practitioners. The medical perspective dominates throughout the study, taking specialized knowledge and its application in practice as the core subject of quality management. The study will address, however, how both in policy rhetoric and in daily practice 'quality management' has become a vehicle for a kaleidoscope of goals (i.e. evidence-based medicine, cost containment, efficiency, patient satisfaction, safety, equity).

The results of the study are presented in the following chapters:

1 A conceptual exploration and account of the chosen definitions of terms

The first chapter contains an exploration of the concepts behind the terms 'quality' and 'management'. Their use in relation to the terms 'health care' and 'medical specialist care' will be discussed and an account is given of the definitions chosen for this particular study.

2 Methodology of the study

Chapter 2 describes in more detail the methodology of the study. The theoretical focus in the different chapters is explained. Based on the theory of quality management and innovation diffusion theory a framework of questions is composed that will be used throughout the study when analysing the empirical material and reporting personal experiences. Through the systematic use of this framework a consistent and meaningful description and analysis of the nature and development of quality management of medical specialist care is sought. A listing of the empirical material used for this study is provided together with the arguments for selection. Validity and generalizability of the overall study and its respective components are discussed.

3 The development of quality management of medical specialist care in Dutch hospitals explained through a historical analysis focusing on professionalisation and organisational development in their social and economic context

Chapter 3 provides the historical context in which quality management of medical specialist care is maturing in The Netherlands. The description focuses on the professionalisation of the medical profession and the institutionalisation of specialist care in hospitals given the socio-economic context and respective health-care policies in different periods of time. By exploring the roots of the present clinical, economic and political functioning of specialists in Dutch hospitals, underlying reasons for the nature and development of quality management of medical specialist care are postulated and argumented.

4 The development of quality management of medical specialist care through quality systems within the profession

Chapter 4 gives an overview of quality assurance activities of national professional bodies such as the Royal Dutch Medical Association (KNMG), the Dutch Specialist Association (LSV) and Scientific Societies of medical specialties. The nature of the different activities will be considered as conditions for or elements of quality systems. The development of the activities will be analyzed from the perspective of profession-

alisation theory. Special emphasis will be put on the national programme for peer review that was developed in the seventies and implemented with the support of CBO.

5 Operationalisation of quality management of specialist care in the hospital

In chapter 5 the concept of quality management will be operationalized on the level of medical specialist care in the hospital. First the general position of the specialist in the hospital organisation is discussed and the main elements of the infrastructure of medical specialists care in Dutch hospitals are presented: the medical staff, partnerships and house staff. Quality-management activities will then be described on the level of daily work (clinical rounds, record-keeping, patient transfer), committee activities (autopsy meetings, infection committee, drugs committee, incident committee and peer review committee) and the level of the organisation as a whole (medical staff, hospital management). Quality-management activities of medical specialist care in The Netherlands are put in a broader perspective by comparing the activities in Dutch hospitals with the findings on existing activities in a group of 262 European hospitals in 15 countries that have participated in a concerted action programme on quality assurance in hospitals between 1990 and 1993.

6 The selection of topics for quality management

Chapter 6 focuses on the selection of topics for quality management. The reports of a total of 101 priority meetings to select topics for peer review, held between 1976 and 1992 are analyzed within the framework as described in chapter 2. This analysis shows the 'epidemiology' of problems taken as the focus of quality management within the context of peer review and illustrates the relative importance of knowledge problems (*what should we be doing?*) versus organisational problems (*how should we be doing it?*).

Furthermore, empirical peer review material on several clinical topics will be analyzed in more detail. Underlying mechanisms that seem to determine the success or failure of studies performed on 20 issues such as record-keeping, prophylactic use of antibiotics in surgery, preoperative assessment and blood-transfusion policy are discussed.

7 Practice guidelines and quality management of specialist care

Chapter 7 discusses criteria development as a part of quality management of medical specialist care. After a theoretical introduction into the different ways of formulating criteria on specialist care, their implementation and the relation between guidelines, protocols and criteria, the consensus development process of CBO will be discussed in more detail. An analysis of the managerial profiles of 33 sets of practice guidelines as

developed through the CBO consensus development programme between 1982 and 1992 is provided. The relation between the process of guideline formulation on a national level and criteria formulation on the hospital level is examined in more detail. Especially the relation between the knowledge components (what) and the operational components (how) in the formulated guidelines and criteria is explored.

8 **Towards quality systems in hospitals: transition of quality management of medical specialist care from a professional to an organisational perspective**

This chapter describes the development of quality management in the hospital and summarises initiatives to introduce hospital-wide quality assurance activities and the trend to develop quality systems in Dutch hospitals. The analysis will focus on the integration of quality-management activities of medical specialists with the emerging quality systems in the hospital organisation.

Performing an explorative study resembles exploring unknown land. Once the map is drawn, in retrospect all seems simple and evident. Similarly, the eight chapters represent logic and order that was not existing when the journey commenced. The study actually started with a descriptive analysis of the material presented in chapters 6 and 7 using both management theory and innovation-diffusion theory. However, the findings seemed to get far more meaning through relating them to the broader context of the hospital as the organisational setting (chapter 5), professionalisation of medical specialists in The Netherlands (chapter 4) and the overall history and development of the Dutch health-care system (chapter 3).

Quality management of medical specialist care derives its meaning from the context in which the specialist works and thrives on the continuous process of progress in medicine, internalised in the medical profession and contingent with notions on health and health care and the role of medical specialists as a profession within the hospital organisation and the health-care system at large.

In the *Epilogue* some general conclusions on the nature of this adaptation process are drawn and several recommendations on the future development of quality management of medical specialist care are formulated in the direction of health policy-makers, hospital managers and the medical profession. The naive view on quality management of medical specialist care in January 1985 is in November 1996 replaced by a more profound insight into its complex nature and the mechanisms that cause its shape and transformation. This insight is not a mere scholarly exercise but has improved the quality of the author's work as a consultant, both in terms of effectiveness and personal satisfaction.

Chapter 1
A conceptual exploration and account of the chosen definitions of terms

"Definierbar ist nur das, was keine Geschichte hat."

Nietzsche, *Zur Genealogie der Moral* (1887, II. 13)

1.1 INTRODUCTION

Choosing *Quality Management of Medical Specialist Care* as the title of a study asks for further explanation. Even the five terms by themselves (i.e. 'quality', 'management', 'medical', 'specialist' and 'care') can give rise to complex debates about their meaning.

In this chapter, several conceptual notions will be explored, especially related to the terms quality and management, and more specific to quality in relation to health care in combinations as 'quality of care' and 'quality of medical specialist care'. After some initial paragraphs on different approaches towards the definition of quality (1.2.1-1.2.2) paragraphs will follow on the quality concept in production and service industry (1.2.3, 1.2.4). The characteristics of the health-care sector and the consequences for the meaning and use of the term 'quality of care' are discussed in paragraph 1.3. The underlying dimensions of definitions on 'quality of care' are explored in paragraph 1.3.1. The reasons will be explained for choosing the following definition of quality for this study (1.3.2):

> *"Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs."*
> (ISO-8402, 1986; NEN-ISO, 1989)

The reasons to work with the concept of quality management rather than using terms as quality assessment, quality control, quality assurance and quality improvement, will also be provided (1.4). In paragraph 1.4.1 it will be explained how different management theories have shaped the meaning of 'quality management' and in the last paragraph (1.5) the exploration of the meaning of the compound 'quality management of medical specialist care' will be completed by focusing on the definition of medical specialist care.

As Donabedian has stated, there are several definitions of quality, or several variants of a single definition: and each definition or variant is legitimate in its appropriate context (DONABEDIAN, 1980:27). The context of a study that tries to analyse the nature and development of activities to manage the quality of medical specialist care, asks for a definition that can be made operational but does not necessarily limit the scope of the goals of health care or the meaning of management.

1.2 THE DEFINITION OF QUALITY

The reason for trying to formulate a definition for a term like 'quality' is to give the concept a meaning in language so it can be communicated. This presupposes that quality can be known and therefore can be expressed in words. In his philosophical novel *Zen and the art of motorcycle maintenance* Pirsig states that all attempts to define quality are fruitless:

> *"Quality is a characteristic of thought and statement that is recognized by a non-thinking process. Because definitions are a product of rigid, formal thinking, quality cannot be defined."*
> (PIRSIG, 1974:200)

The term 'quality', just as other notions like 'beauty' and 'love', is highly abstract. Harteloh and Casparie have proposed to consider it as a primitive term in a philosophical sense (HARTELOH, CASPARIE, 1991:36) in accordance with the theories of Hume.

Although Pirsig made a point in showing that reasoning will never succeed in helping us to know what quality is, by writing his novel he demonstrated in an excellent way that feelings about quality can be communicated through language. Especially when the word quality is combined with day-to-day activities that rely on human decision-making (like health care), an exploration on its nature is helpful in providing a better insight into the goal and conduct of the decision-making process. Sometimes these attempts to define quality of care can become very tedious, so authors define it as *'Quality is like the holy spirit'*, perceiving it as a belief (MUNCHOW, 1986), or question openly whether it is a 'Mission Impossible' because of the kaleidoscope of perspectives involved (REERINK, 1990). Loughlin states that quality is an illusion and sees the jargon as pseudo-intellectual 'management speak', referring to its use in the British National Health System (LOUGHLIN 1993:69). He refers to the philosopher C.L. Stevenson when considering the use of the term 'quality' in health care as an act of persuasive definition, using the emotive meaning of the term to revive its descriptive meaning.

Discussions about the definition of quality demonstrate that the debaters are actively searching for a language that identifies and expresses their common goals or at least makes the underlying intentions more transparent. It seems also evident that we will never reach an end point that satisfies everybody all the time. The discomfort with

empty phrases ('Quality is just a slogan') does, however, not diminish the necessity for the debate on the meaning and definition of quality. This leaves us with two options: one either values the human search for a meaning of the concept or one values the fact that it is not possible. The fact that this study is written shows that here the first option has been chosen. A search in the nature of quality should be considered a challenge, even when one knows that the holy grail will never be found. The journey, however, is a reward in itself.

A reflection on the different attempts that have been made in the past to define quality and quality of care shows that at least two classical philosophical notions underlay the different attempts. The notion of object (being by itself) versus subject (being in the eye of the beholder) and the notion of a property (passive, static existence) versus capacity (active, dynamic, potential to exist).

1.2.1 Quality as an attribute of an object versus quality as a subjective entity

Does the essence of quality lie in being the attribute of an object or does it, like beauty, only exist in the eye of the beholder? This question is related to the object/subject debate. Since Aristotle 'quality' has been considered a semantic category containing information on essential attributes, observable with the human senses, of an entity; in an ontological way quality is the system of attributes that make a 'thing' what it is, and distinguishes it from other 'things'. It is in the work of Aristotle where the distinction is made between objective qualities, that exist in nature without the specific transformation through human senses and subjective qualities, that are directly related to the human experiencing without being a 'reality' in nature. Most definitions about quality of care consider quality as an attribute of care that can be dealt with in an objective way. This is quite understandable. As health care finds its roots in medicine, a form of applied scientific knowledge gathered through the studying of the objective Aristotelian world, it is easier to describe in concrete terms what constitutes 'good medicine' than try to relate quality to the subjective notions of individual recipients of care (see also VOLRAD DENEKE, 1984). The object approach considers quality as a totality of characteristics of care that can be known, measured, standardised and improved. The object approach in defining 'quality', 'quality of care', 'quality of professional performance' and 'quality of health-care institutions', has been very popular. In The Netherlands this approach is taken in the so-called 'aspect approach' and in several reports of the National Council for Public Health (NRV) the concept of quality of care has been operationalised through a listing of the respective characteristics covered by the total concept (NRV 1986, 1990A, 1990B). The popularity of this analytical approach along the lines of Aristotle and Linnaeus seems

transient with the popularity of classification schemes in post-Descartian positivistic medical science.

From a subject point of view, quality is not a characteristic of an object but a phenomenon that can only be experienced by an individual and relates to individual norms and values. This comes close to the intuitive notion that quality will be recognised when it is there. The approach is not very helpful in creating a definition that helps to operationalise quality into quality management. It can, however, be recognised that the health of the patient is the ultimate outcome of the quality of care. Therefore in several definitions the goal of health care, to satisfy the needs and demands of the patient, plays a central role. Consequently, for the managing of quality of care, it is necessary that patient values and opinions on the need and demand for care on both an individual and a collective level are made explicit, and thus more objective, beforehand. This also makes the tensions between perceived medical needs, collective resources and individual demands more visible. Acceptance of a fully subject-oriented definition of quality would be conflicting with intentional management. Nevertheless, taking the wishes of the consumer as the starting point for a definition of quality is very popular in industry and gains growing popularity in health care on the waves of more market-oriented health-care system reforms.

1.2.2 Quality as a property versus quality as a capacity

Another conceptual dichotomy that can be recognised in the different attempts to define quality and quality of care is that of the property approach (static, passive) versus the capacity approach (dynamic, active).

The property and the capacity approach are both modifications of definitions that consider quality as an attribute of an object. When quality is considered as an attribute of an object, the nature of this attribute can be considered as an existing property that can be evaluated or as a capacity with the potential to be realised.

The property approach sees quality as a property of an object that can be described and measured. Avedis Donabedian, considered as one of the founding fathers of quality assessment in health care, takes this approach already on the first page of his three-volume *Explorations in Quality Assessment and Monitoring* when he states:

> *"Perhaps it is useful to begin with the obvious by saying that quality is a property that medical care can have in varying degrees."*
> (DONABEDIAN, 1980:3)

This approach opens the road to measurement. Different properties (aspects) can be discerned, criteria can be developed, measurements can be performed and judgements can be given.

Quality assessment thus becomes the recognition and measurement of properties of an object and the formulation of value judgements based on pre-established criteria.

Quality assurance in this tradition becomes the extension of (scientific) evaluation into the direction of improvement when discrepancies are found between criteria that reflect the expectations and the data that reflect the realities of care practice. This evaluative approach can also be recognised in a definition Donabedian gives for quality of medical care:

> *"Its expected ability to achieve the highest possible net benefit according to the valuations of individuals and society."*
> (DONABEDIAN, 1980)

The property approach shows quite some similarities with the natural sciences approach so familiar in medicine. This conceptual approach towards quality assessment and assurance in health care has been very popular in the USA in the sixties and seventies. The management styles that are the result of this conceptual determination are, as a consequence, more directed towards steering through evaluation than steering through development or, phrased differently, more focused on feedback than on feed-forward.

The capacity approach does not define quality as the properties of an object but rather as the capacity of these properties to achieve goals. This shifts the focus from the property to the capacity to achieve a goal and consequently enforces the goal as the factor that determines quality (STEFFEN, 1988).

This approach in time can be seen as a reaction to the itinerary that quality assurance in health care has taken, especially in the USA. By putting so much emphasis on measurement and phenomena that could be measured, the scope of the concept has narrowed, and in the opinion of several authors, patient values are not at the core of quality of care where they should be. The limits of a measurement approach as seen from management theory is given by Cyert:

> *"The first step is to measure whatever can be easily measured. This is okay as far as it goes.*
> *The second step is to disregard that which can't be measured or give it an arbitrary quantitative value. This is artificial and misleading.*
> *The third step is to presume that what can't be measured easily really is not very important. This is blindness.*
> *The fourth step is to say that what can't be easily measured really doesn't exist. This is suicide."*
> (CYERT, 1975)

This critique on the 'measurement mandate' as an often counterproductive management approach when applied too rigidly can be found throughout the history of management literature. Recently Minzberg explored this notion extensively by demonstrating the conceptual flaws of strategic planning (MINZBERG, 1994). Putting too much emphasis on rationality in management through modelling and system control may stifle innovation and can hinder an adequate response to unperfected develop-

ments. Management of quality should not only be executed through a series of analytical activities but, especially for strategy and development purposes, asks for activities that achieve a synthesis. The potential of quality as an unifying and integrating concept seems more appealing given the present management challenges than discerning in into various isolated aspects each with their own associated management activities (see also 1.4).

The capacity approach is consistent with many of the definitions on quality as developed in the industrial sector, such as:

> "*The capability of a product to fulfil its intended purpose (produced with the least possible cost).*"
> (FEIGENBAUM, 1991)

Defining quality in terms of property or capacity has consequences when it comes to the operationalisation of the concept. The property approach will result in criteria development and measurement as central activities, the capacity approach will put the realisation of the capacity as the central target. In the capacity approach not so much the existence as the realisation of quality becomes important. This urge to realise quality can also lead to definitions of quality that seem to be of a normative or prescriptive nature. This leads Harteloh and Casparie to distinguish 'descriptive' and 'prescriptive' formulations of quality (HARTELOH, CASPARIE, 1991). Although this distinction has merits for identifying the normative character of definitions of quality, the two categories descriptive/prescriptive are included in the broader notions of property and capacity.

Perhaps this whole debate looks similar to the question of who was first, the chicken or the egg; for the way the concept of quality is handled in the domain of medical care, however, it has major consequences. Both the development of a 'quality jargon' and the development of most 'quality assurance activities' reflect the 'property approach' rather than the 'capacity approach'.

To summarise, the following notions are relevant for the further exploration of the concept of quality and its use in this study:

- In essence, quality is of a subjective nature. However, to facilitate productive reasoning about the concept 'quality of care' and to make it managerial, objectivisation is necessary. This is possible, for care can be considered as an object (series of activities with a certain rationale and goal of being) and quality of care can be considered as an expression of the will to evaluate and foster the achievement of goals.
- To consider quality as the property of an object limits the operationalisation to evaluative activities that can lead away from its essence; to consider it as the capacity of an object may help to overcome this potential bias of rational reasoning and

may help to promote management styles that focus on synthesis rather than on analysis.
- Quality is a relative concept and its meaning is determined by its context at a certain moment in time. To study the meaning of quality thus implies studying the context in which it is given a specific meaning.

1.2.3 The quality concept in production industry

In the industrial world one mostly defines 'quality' by quoting several 'quality gurus' who have used quality as the central concept of management theory. Some widely known definitions are:

> *"conformance to requirements"* (CROSBY, 1979)
> *"predictable degree of uniformity and dependability at low cost and suited to the market"* (DEMING, 1982)
> *"fitness for use" i.e. "the extent to which the product successfully serves the purposes of the user during usage"* (JURAN, 1974)
> *"meeting the customer requirements"* (OAKLAND, 1989)
> *"[to] satisfy the requirements of consumers"* (ISHIKAWA, 1985)
> *"[product and service quality can be defined as] the total composite product and service characteristics of marketing, engineering, manufacture, and maintenance through which the product and service in use will meet the expectations of the customer"* (FEIGENBAUM, 1991)

Garvin (1984) identified five distinct ways of approaching the term 'product quality' as cited in Neijzen en Trompetter (1988):
- the 'transcendent approach': looking for the ideal product;
- the 'product-based approach': the extent to which a certain aspect or characteristic is present in the product;
- the 'user-based approach': fulfilment of consumer needs;
- the 'manufacturing-based approach': meeting technical specifications and making it right the first time;
- the 'value-based approach': balance between value and price in the opinion of the consumer.

In addition to the distinctions made by Garvin, Morgan described three main conceptual developments underlying the term 'quality' that have received widespread support in industry (MORGAN, 1992). Firstly, quality is not an absolute concept and the terms 'high' and 'low' quality therefore have little meaning. Quality has come to be seen primarily in terms of customer perceptions (TAKEUCHI AND QUELCH 1983; SHEEHY 1988; HOLBROOK AND CORFMAN 1985). Secondly, in conceptual terms, perceived quality is a product of the difference between customer expectations and customer perceptions of outcomes (GRÖNROOS 1984, PARASURAMAN, ZEITHAML AND BERRY, 1985). Thirdly, customer

quality perceptions are arrived at through a quality-evaluation process that involves not simply perceptions of outcome, but also perceptions of the process by which that outcome has been achieved, and the context in which production and exchange occur. This last point, where not only the product but the process can be the focus of the quality approach, opens the way to a branch of industry, more similar to health care, where the process is the product, i.e. the service industry.

1.2.4 The quality concept in service industry

Den Hertog and Kunst state that the introduction of quality concepts in the service sector compared to the production sector is lagging behind and they give three reasons (DEN HERTOG AND KUNST, 1992). Firstly, there is no well-defined tradition of setting standards and measuring output. One obvious reason is that service is often hard to measure in advance because quality occurs during service delivery (ZEITHAML, BERRY AND PARASURAMAN, 1987). Quality seems to be totally dependent upon employee performance. And employee performance cannot be engineered and tested as a tangible good. As a consequence, we lack the insight into the way in which quality is produced and in which quality can be controlled. Secondly, management of service organisations is becoming only gradually aware of the fact that their organisations are, in fact, production systems. Although the service provided to each customer is unique, the totality of service delivery is a production process that needs management to reach efficiency, a prerequisite for profitability.

Thirdly, and most important in the opinion of Den Hertog and Kunst, is the slowness with which we are made aware that service organisations in the nineties are facing the same severe competitive situation that industrial production organisations suddenly had to face at the end of the seventies.

In a context where quality becomes more and more important as a strategic weapon and the production process in service industry is becoming more explicit, quality assurance policies and activities have also entered the domain of service industry.

One difference with product industry has been mentioned already; in service industry quality is produced in direct interaction with the consumer. This opens up the possibility to tailor the service to the needs of the individual consumer. This aspect of service industry has been called 'customisation' (LOVELOCK, 1983). The extent to which this tailoring can be achieved depends on the degree of standardisation of the production process and the authority of the employee to make decisions in the direct contact with the customer. Another difference between the product and service industry is that in a service the producing and consuming are inseparable. Consumption and production of the service cannot be separated in time or place (RATHMELL, 1974). In the service sector Grönroos (1984a, 1984b) has identified three distinct dimensions of quality that show a large resemblance to the dimensions discerned by Donabedian (1980) and in the

report on quality of professional performance of the Dutch National Council on Public Health (1986): the technical quality (i.e. the outcome of the interaction), the functional quality of the exchange process (i.e. how the service is provided, including all interactions between the organisation and the customer), and the corporate image dimension of quality which is how the customers perceive the supplier.

This last element, linking the perception of the customer to the assessment of technical and functional quality, has to do with the extent to which customer expectations towards the service supplier are realistic. A more elaborate model that discerns the different levels where gaps between customer expectations and service delivery can occur is developed by Parasuraman, Zeithaml and Berry (SERVQUAL model 1985). Possibilities for the application of this model in health-care organisations have been described by Babakus and Mangold (1992) and Harteloh and Verheggen (1994).

Over the past decade quality has become a dominant concept in publications on the management of services (I.E. SCANLON AND HAGAN 1986, MASTENBROEK 1991, EDWARDSSON, THOMASSON AND ØVRETVEIT 1994).

1.3 Quality in health care: the concept and its empirical embedding

In the following an illustration will be given of the different ways attempts have been made to define quality of care. Before doing so it is necessary to define the concept of care. Care, as used in this text, is health care. The combination of the words 'health' and 'care' also poses challenging problems for definition. Just like 'quality' the word 'health' is very much context related and has a high level of abstraction. Although one of the reasons for making definitions is to draw the lines around a concept, the definition of health given by the World Health Organisation (WHO) is not very helpful in this respect: "*A state of physical, psychological and social well-being*". What it shows is that, like in quality, a subjective notion as 'well-being' is at the centre of the concept. If we define (health) care as all those activities performed to achieve health, it becomes clear that the concept of care also relates to subjective notions. One of the dominant fields that delivers health care is medicine. Medicine as such is at present based on scientific notions, although in the practice of medicine both the concepts of science and art are recognised. Health care in this study is related to the work of medical specialists in the context of hospitals. This limits the scope and also directs the choice for a definition of quality. As medicine states to have an objective scientific basis, the practice of medicine can be evaluated to establish whether professional performance is in accordance with medical knowledge. Although these notions will be explored later in this text, it shows that the concept of health care consists of a series of activities that take place in the interaction of a care seeker (patient) and a care deliverer, for which the care deliverer relates for his performance partly to scientific knowledge and in which a goal is achieved (health, well-being) that will be judged by

the patient against his own subjective values. Health care therefore can be seen as medical practice (applying knowledge) as well as service delivery (providing a service). This results in specific responsibilities for the medical profession towards continuous quality development (SEE ALSO WORNING, MAINZ, KLAZINGA ET AL., 1992).

Like other services, medical specialist care is characterised by the fact that its product is intangible and production by the specialist and consumption by the patient are inseparable. Another specific characteristic is that medical care asks for active involvement (some say commitment, e.g. VUORI, 1980) of the consumer. Therefore medical specialist care can be called a front-office service (WIERSEMA, 1992) implying intensive provider/client contact in contrast to more supportive services, called 'back-office processes'.

In the active interaction of doctor and patient the question of the patient (placed within the context of a health problem and seen as a health-care demand) and the answer of the doctor (framed into the context of medicine and seen as the response to a health need) constitute the essence of the production process. This is a complex process that, compared to other services, leaves limited room for standardisation (medical practice in terms of diagnoses and therapy related to a specific disease can be standardised to a certain extent but not the interaction with the individual patient, not knowing beforehand which kind of questions will be posed). The level of autonomy of the provider, however, to make decisions is very high (a medical specialist is a prototype of a professional both in the sociological and in the organisational meaning of the term). The decision-making process between the doctor and the patient is not only based on medical knowledge but on the actual possibilities for further action related to the available resources. In this respect the specialist is delivering an individualised service within a context with limited possibilities. This context makes clear that the resulting quality of the service is not only based on the fitting of a medical answer on the expectations of the customer but is also limited by the possibilities the practitioner has in his role as rationer of services (WELCH AND GROVER, 1991).

The nature of the service implies the need for optimal communication between care provider and receiver; the specialist should be aware of the continuous need for validity testing in the patient-doctor encounter (WIDDERSHOVEN, 1994).

As a consequence of the above, quality of health care does not only relate to the concrete interaction between the doctor and the patient but to the organisation of the care as well.

This approach coincides with the notion that care delivery by medical specialists is framed in two separate ways: the direct doctor-patient interaction and the context in which the service is delivered. All individual doctor-patient contacts take place as part of a broader production process of service delivery of medical specialist care. The production process of specialist care as such is part of a composite of production processes that

together result in the primary process of patient care within the organisational context of a hospital. This notion will be discussed in more detail in chapter 5.
Because of all these different notions underlying the term 'care' as well as the term 'quality' an attempt to formulate a definition on quality of care will always result in a debate on inclusion and exclusion criteria of the definition. Definitions that are published usually give a better insight into the balance of forces of the group that has composed the definition rather than illuminate the concept.

Vuori (1980) recognised three principal ways to define quality of care: formulation of a nominal definition, performance of a content analysis and the formulation of an operational definition (for a general text on formulation of definitions in medicine see VAN EVERDINGEN 1983). A nominal definition aims at an all-embracing, logically coherent definition. Several attempts to reach such a definition on quality of care have been made. One of the latest is by Harteloh and Casparie, who state:

> *"The term 'quality' is applicable when we can speak about an optimal balance of the realised and the expectations, related to a certain aspect of an object."*
> (HARTELOH AND CASPARIE, 1990)

In a way this is not a definition but a manual for use. It is an outcome-oriented formulation that can be used by someone who wants to judge quality after the service has been delivered but it does not contain elements that help foster the realisation of the capacity for quality in an object.

However, this type of nominal definition tries to integrate several theoretical notions that are similar to the ones identified by Donabedian (1980):

- expectations can come from different parties (patients, professionals, managers, financiers);
- there is a judgement involved ('when we can speak about');
- the judgement is based on comparison of the realised and the expected;
- the formulation can be operationalised (balance between realised and expected);
- the judgement is relative to other notions (an optimal balance).

How content analysis has been performed to define quality, and what type of operational definitions on quality of health care have been proposed, is discussed in the following paragraph.

1.3.1 Quality in health care: analysis of underlying dimensions to construct an operational definition

The methods of performing content analysis and the formulation of operational definitions seem more popular than the formulation of nominal definitions. In 1990 the Institute of Medicine performed a study of a quality review and assurance programme for Medicare (LOHR ET AL., IOM 1990). As part of the study a definition for

quality of care based on empirical material was created (HARRIS-WEHLING, 1990). A total of 100 existing definitions in the English language were examined and 18 different quality dimensions were discerned (HARRIS-WEHLING, 1990:117).

A definition of quality of care was successively created in which 8 dimensions that were most frequently mentioned in the examined definitions were included. Those dimensions are:

- a scale of quality; this notion goes back to the definition of Donabedian in which the degree to which the results of care meet pre-set criteria is one of the central issues;
- the nature of the entity being evaluated (concepts such as health care, medical care and patient care);
- the recipient of the care (consumer, individual, society, children, elderly);
- goal-oriented care; which is taken to be the capacity of the elements of care, such as structure and process, to achieve a goal such as to improve outcomes;
- risk versus benefit trade-offs; a dimension which acknowledges that regardless of the benefit expected from health care, all health care carries some risk;
- specificity of outcomes, from quite generic terms (desired patient outcomes, improved health, well-being) to quite specific concepts (physiologic status, physical function, emotional and intellectual performance, and comfort);
- role and responsibility of recipient;
- constraints of technology and the existing state of scientific knowledge.

All these dimensions are integrated in the following definition:

> *"Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."*

Dimensions that are not included in the definition are for example technical competency of providers, interpersonal skills of practitioners, accessibility, acceptability and constraints by resources. One should keep in mind that this definition, although based on empirical material, was created by the Institute of Medicine for use in the context of the Medicare programme in the USA.

A comparable empirical approach, focusing on the definition of quality assurance instead of quality of care, has been undertaken by Welch and Grover. They summarise the result of their work in three groups of definitions; process definitions (stressing dimensions as efficacy, appropriateness and caring), triad definitions (including elements of structure, process and outcome) and industrial definitions (focusing on dimensions as fulfilling patients expectations and achieving efficiency). Their conclusion is that:

> *"Although the definitions of quality assurance vary widely, each seeks, as an ideal, to provide for accountability of the clinicians while also providing a source of feedback to those clinicians to improve their skills."*
> (WELCH AND GROVER, 1991)

That is, they attempt implicitly to balance clinical practice with normative standards; or, citing Donabedian:

> *"Unless we are able to reconcile the practitioner's responsibility for individual patients with the practitioners's role as rationer of services, we can expect turmoil ahead."*
> (DONABEDIAN, 1988)

The empirical attempts to define quality of care (IOM, 1990, WELCH AND GROVER, 1991) are a good illustration of the different debates that are underlying the attempts to formulate a definition. These empirical findings seem similar to the dimensions of the quality of care implied in discussions on practice guidelines (KLAZINGA, 1994):

- science and art as complementary dimensions of good medical practice (i.e. quality of professional behaviour);
- setting of the health-care goals on the level of the patient/doctor interaction;
- setting of the health-care goals on the level of populations (including debates about individual demands versus social needs in the context of common norms and values);
- transformation from medical knowledge into practice behaviour;
- appropriate use of available resources;
- making choices in health care in the context of limited resources.

These last two notions, in particular, bring the quality of care debate from the realm of medicine and ethics into the arena of economics. In its broadest sense economics is the science of choices so it can be applied to each and every situation where choices are made and health care is such a situation. When the choice-making process is looked upon at the micro level of health-care delivery (doctor-patient interaction), the meso level (health-care delivery in an institution) and the macro level (the health-care system as a whole), it becomes evident that different notions play a role in different decision-making processes.

Initially, Donabedian reserved the term 'quality of care' for obtaining the balance he considered essential, the balance of health benefits and health harms. Although in his approach the judgement of the health outcome lies in the mind of the patient, the role of the physician is to make sure that the activities he undertakes under the heading of health-care delivery have an accountable benefit/harm ratio. Thus effectiveness becomes the central component of quality of care holding two dimensions: medical effectiveness as defined from a scientific point of view and patient satisfaction. In consequence of this

reasoning Donabedian sees two outcome dimensions within the concept of professional performance: medical effectiveness and patient satisfaction or, in other terms, science and art, and takes these two as the cornerstones of medical practice evaluation.

When in 1986 the Dutch National Council for Public Health published a report on the quality of professional performance trying to identify the main characteristics of quality, in outcome as well as process and structure, the expert committee described three dimensions: technical quality (including medical effectiveness as outcome measure), attitude (including patient satisfaction) and organisation (the way the practitioner organises his work). This third dimension was recognised by Donabedian (1980) as the amenities of the service but he did not relate this aspect as strongly with the quality of professional performance as was done in the report of the Dutch National Council on Public Health. Including the dimension of organisation in the concept of quality of professional performance has major consequences. It illustrates that the decision-making process of the practitioner is not only of relevance for the achievement of individualistic health goals of patients, but at the same time it has major consequences for the organisational context in which the practitioner functions. The laws of economies do not only apply to the micro level of health care of the doctor-patient interaction, but they do also apply to the organisational context where the practitioner functions (for instance a hospital) and the overall allocation of resources to health care related to the health goals of society at large. Especially when the notion of cost containment was introduced in health care under the heading of quality, debates about the most beneficial use of limited health-care resources were included. The empirical definition of the IOM illustrates this notion well: it is a definition that directs itself towards the population at large as well as individuals and aims at an optimal use of the limited resources for the Medicare programme. Using the concept 'quality of care' at the macro level at best initiates a debate about the way the discussion about goals in health care should be dealt with, including philosophical, ethical, economic and political notions. The fact that this use of the concept 'quality of care' has been made has led to comments by Brotherston and Caper. Brotherston (an exponent of the operational research approach to health care) has stated that the whole concept of quality should be discarded as too value-laden and hindering rather than that it should facilitate clear thinking (BROTHERSTON 1962). Caper, an exponent of health policy-making in the USA, has stated that:

> "[...] *in the eyes of the American Medical Association and probably most practising physicians quality is defined as a commodity that is damaged if any changes whatsoever are made in the structure or financing of the current fee-for-service system of medical practice.*"
> (CAPER, 1988)

This criticism can still be heard and quality is often used in debates in a meaning that rather demonstrates the opinions and beliefs of the users of the word, than as

a reference to a common concept. However, the search for a definition for quality has not stopped.

What this search has made clear is that the quality debate in health care takes place on different levels that are strongly intertwined:

- the level of medical practice as compared to medical science;
- the level of medical practice addressing medical needs as compared to medical practice as a service addressing the demands of consumers;
- the level of rational use of limited health services resources;
- the level of accountability of the health-care providers towards customers, financiers and government.

Parallel to these levels three different approaches towards quality of care (and quality management) can be recognised in the (Dutch) health-care setting (WIERSEMA, 1992):

- an educational approach (from science towards knowledge and performance of professionals and the closing of the gap between needs and demands);
- a rationalisation approach (planning and control of service delivery);
- a political approach (accountability and attuning to different interests).

Thus, in the context of the Dutch health-care system in the nineties, the label 'quality of care' has become the carrier of various underlying debates and relates to learning processes and intentional change as well as to rationalisation processes and political policies. In the next paragraph a definition will be chosen that acknowledges this kaleidoscope of different notions.

1.3.2 Selection of a definition of quality that is congruent with health policy objectives in The Netherlands

Given the aforementioned functions of the quality of care debate, in the Dutch context the search for a definition that was acceptable for the different parties that participate in the health-care field has resulted in the choice of a definition of quality that stems from industry. When in 1989 a national conference was prepared where the different parties in the health-care field were asked to discuss their mutual plans and responsibilities for the quality of care, the organisers proposed the following definition that was derived from industrial definitions of quality:

> *"Quality is the degree in which the whole of characteristics of a product, process or service meets the requirements that originate from the goal of use."*
> (VAN BERKESTIJN, COLSEN, 1989).

This definition seemed general enough to suit the intentions of all participants and was unanimously agreed upon Two years later the National Council on Public Health took the latest version of the definition in norm 8004 from the International

Organisation for Standardisation (ISO norm 8402, 1986; NEN-ISO 8402, 1989) and this definition plays a central role in all present policy documents:

> *"Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs."*

This definition (in many respects similar to the theoretical definition by HARTELOH AND CASPARIE, 1991) contains the following dimensions:

- Quality is multifaceted; the phrase 'the totality of characteristics refers to the 'object approach' and gives a legitimisation to discern different aspects in phrases as 'quality of care' and 'quality of professional performance' and legitimises a measurement approach.
- Quality refers to an entity that can be a product, process or service, in other words it relates to the results of activity (product) as well as to the activity itself (process, service).
- Quality relates to an ability; this implies a 'capacity approach'. The potential to realise quality should be nurtured.
- The ultimate goal is directed to stated needs as well as to implied needs – a formulation that can easily encompass health demands and needs on both the individual and the population level.
- This approach uses a specific way of looking at health care. It sees health care as a process that takes place within a certain infrastructure and produces a certain outcome (a notion introduced for health care by Donabedian). Words as consumer and producer are transferred to the medical field where the patient becomes a health-care consumer and the physician becomes a health-care provider.
- Needs are introduced in the definition. Although the definition does not state explicitly what the needs are, it makes clear that both stated and implied needs are legitimate. *Ergo*, health care should result in health improvement either on an individual level or on a population level and either from the medical effectiveness point of view and/or the patient satisfaction point of view.
- Quality related to the totality of characteristics. In this way it is a unifying concept, implying that the total is not the mere adding up of the different elements but an integrative concept.

The main reason for the NRV in its 1990 report on quality terminology to opt for the ISO definition was its universal character and acceptance. By copying the industrial terminology the jargon used for quality policies in health care stayed in line with government policies towards industry and the prevailing debate on marketisation and management in health care. In a certain way it is regrettable that the 1989 national conference definition of quality was discarded. In this previous definition the terms 'degree' and 'requirements' were included explicitly, thus implying operational activities as measurements and criteria setting. In the ISO definition the term 'quality'

is not used as a single term to express a degree of excellence in a comparative sense nor is it used in a quantitative sense for technical evaluations. The composers of the latest ISO definition suggest to use a qualifying adjective to express these meanings. The merit of the earlier definition of quality is that it stresses more explicitly the relative character of the quality concept by including the word 'degree' in the definition. Given the existing forms of quality assurance in health care (mainly based on evaluation technologies using criteria setting and measurement of practice), the phase of management development in health-care organisations at the beginning of the nineties, and the necessity to unite professional and administrative quality approaches, the 1989 definition was perhaps more fitting for the communication of the quality concept through explicit policies than the less operational ISO definition with its additional vocabulary. Notwithstanding these disadvantages the ISO definition of quality is chosen for this study as it is widely used and accepted in the present context of health policy in The Netherlands.

Although the definition chosen by the NRV is less explicit than the one of the IoM for the Medicare programme, it seems to have served policy purposes over the past six years well. One of the advantages of the definition is that it defines quality instead of quality of care and that it leaves room for parties to initiate new activities rather than serve as the endpoint of a discussion. One of the consequences of the adaptation of the ISO definitions is that apart from the definition of quality, new terms like 'quality management' and 'quality system' were introduced in the health-care arena. These terms are primarily applicable on organisations and therefore by their nature focus the debate on the quality of the services of an organisation instead of the quality of professional performance. As a consequence 'quality management of medical care' and 'quality systems of professionals' needed to be constructed as new semantic entities that link existing activities of professionals to the overall notions intended by the quality concept.

The less operational definition of quality in the ISO norm is complemented by a broad array of management notions in the compound 'quality management'. The following paragraph will explore the different theoretical notions behind the term 'management' and its present meaning when used in the phrase 'quality management of health care'.

1.4 Quality management: a functional tautology

In the previous paragraph it has been explained that a variety of dimensions and intentions are hidden behind the general concept 'quality of care'. By selecting the definition of the ISO 8402 norm for health policy purposes, the choice was made for an approach that tries to adapt industrial concepts to the health-care setting. This does not only hold true for developments on health system level (i.e. marketisation, decentralisation and deregulation; see also chapter 3), but also reflects the intention to

apply industrial ideas on organisation and administration in health-care organisations. Although the term 'quality' contains all these notions implicitly, the use of the compound 'quality management' makes explicit that specific actions in the realm of the planning and control of medical care are necessary to assure its quality. This paragraph explores the different theories on management that have developed in administrative sciences over the years and the specific management theories that are hidden behind industrial approaches as 'quality management', 'continuous quality improvement', and 'total quality management'. An attempt will be made to relate these terms to the present intentions and operational actions of both hospital administrators and medical specialists to 'manage' the quality of care.

As described in 1.2.3, in industry most definitions of quality are of a functional or operational nature, despite the more generic and descriptive definition of the ISO:

> "*Quality is the capability of a product to fulfil its intended purpose of use, produced with the least possible costs.*" (FEIGENBAUM, 1991)
>
> "*Quality is conformance to requirements.*" (CROSBY 1979)
>
> "*Quality is doing the right things right the first time.*" (JURAN, 1988)

Central dimensions in these three examples are:

- the measurement/evaluation;
- the necessity of requirements (criteria);
- the relation with the goal ('the right things');
- the economic notion, making optimal use of resources ('right the first time' and 'with the least possible costs').

Although in the definition of Crosby the economic notion is not made explicit (in his vision it is implicit in the requirements that are formulated), all definitions seem to hold both the concept of effectiveness and efficiency.

In this respect the industrial definitions fit the product, process and/or service of health care perfectly. But where in industry the goal of use of most products and the (economic) intentions of the producers are clear and the responsibilities and control functions involved in the production process are explicit, this is all less clear in health care. One of the characteristics of health care is that there is a permanent discussion about the goals. There is a continuous interaction between what is scientifically possible, socially desirable and economically affordable and this debate is fed by scientific and economic arguments as well as by arguments related to health needs, health demands, ethics, equity and politics. This discussion takes place on the micro level of the doctor-patient interaction as well as on the institutional level (for example a hospital) and the macro level of the health-care system. Therefore the use of the word 'quality' in the health-care field has initiated a discussion on health-care goals as well as a debate on criteria, process control and evaluation. In this respect concrete activities that are labelled as part of a quality policy have much in common with the activities that stem from the concept of management. The terms 'quality' and 'management' are

both applied in situations where the different actors in the health-care system communicate about the goals and control of health-care delivery. The term 'management' originates from French *manège* and refers to equitation. However, the term 'management' has become synonymous with the activities 'planning' and 'control' (LAWLER AND RHODE, 1976; ANTHONY AND DEARDEN, 1980, GROOT EN VAN DE POEL, 1985). Planning and control are continuous activities that follow each other in a recursive process. Anthony and Young (1984:4) describe 'planning' as *'deciding what should be done and how'* and 'control' as *'assuring that the desired results are obtained'*. The term 'medical management' uses the concept in a similar way, meaning the planning and control of diagnostic and therapeutic processes of patients.

Where the term 'quality' refers to capacities and properties of an object, the term 'management' refers to the realisation of the capacities and properties in such a way that the goal is realised. The goal is partly implicit by its subjective nature (implied needs) but made explicit (stated needs) to the extent that such is possible.

Therefore the combination 'quality management' can be used as an overall expression for all the activities that are directed at goal setting, criteria formulation, process control, evaluation and improvement in their mutual dependency.

The concept of quality management covers other terms like quality control, quality assurance and quality improvement. In ISO norms 8402 and ISO/DIS 9004-2 (1990) definitions of these terms are provided in a consistent self-referring framework. 'Quality management' is described here as:

> *"All activities of the overall management function that determine the quality policy, objectives and responsibilities and implementation by means such as quality planning, quality control, quality assurance and quality improvement, within the quality system."*

The use of the connotations 'control, assurance and improvement' reflects different modes of management that can also be explained in the context of the development of management theory over the years, rather than that they reflect a fundamentally different approach. What is interesting though is that the term 'quality assessment', so prominently present in the work of Donabedian, is not included in the ISO definitions. The neutral, more research-oriented term 'assessment' does not seem to fit in a management concept where 'assessment' always assumes follow-up actions by the assessor. Taken from the context of the ISO definitions the term 'quality management' could be considered a tautology. However, the semantics of these combined terms seem to have a function in health care where quality serves as a synthetizing concept, unifying the goals and intentions of the different actors in the health-care field and management serves as a vehiculum to enforce the use of modern management theories in health care. For a better understanding of the background of present theories behind the term 'management' an outline of the development of management theory will be provided in the following paragraph.

1.4.1 A short synopsis of management theories behind the quality concept

One of the first attempts to give management a scientific basis was made by Taylor (1856-1915). He developed a management theory that has become known as 'scientific management'. Taylorism is based on the following principles (WILKE, 1987):

- specific description of each and every task that should be performed as part of the production process;
- specialisation of workers;
- selection and training of personnel;
- all tasks should be performed in accordance with a pre-set plan;
- criteria for rewards should be an integrated part of the work.

This management philosophy gave rise to an descriptive and control-oriented approach that can also be recognised in the first approaches towards the concept of quality. Quality assessment and quality control as activities are quality management approaches that relate strongly to the Scientific Management School. The main criticism on taylorism was based on the fact that it alienates the worker from the work and does not sufficiently take motivational factors into account. With the introduction of organisation psychology and organisation sociology, other management theories were developed that try to include psychological and sociological notions. Weber (1947) turned Taylor's Scientific Management approach from the realm of the structuring of tasks to the organisation as a whole. Based on his experience in the military industry he developed a theory about bureaucracies. In an ideal bureaucracy all tasks are described and related to persons with a specific position. Positions are hierarchical and all interaction between persons within the organisation is based on written rules. E. Mayo developed around 1930 a theory that put the human relations at the core of management. His work in the Hawthorne factory, Western Electric Company, Chicago proved the importance of the motivation of workers and their mutual relations. McGregor (1960) developed this notion further and puts self-determination of the worker at the core of good management. His theory on 'management by objectives' made popular by Drucker, states that targets (goals) should be established by workers and their bosses together. There should be a mutual understanding about the realisation of goals and thus there is no need for supervision. This management approach is similar to the shift from quality control to quality assurance. In the quality control vision the controlling is something done after a product is produced by a separate person. In the theory of quality assurance, the setting of goals and criteria on process and outcome is a common responsibility of workers and management alike. A special person for control on the quality is not needed: quality assurance is the responsibility of everybody involved in the production process. This notion can be found in phrases like 'quality is built into the product'. Likert (1961) refined the theory of McGregor in this respect that he puts the 'common responsibility and self-

determination' in an organisational framework of functional groups. He states that work should be done in functional groups that interact through their respective leaders (the linking-pin philosophy). Likert honours the 'human resource philosophy' of McGregor but puts it in a hierarchical context, similar to Weber. In his theory the functional groups are the central organisational nuclei.

In recent decennia systems theory and contingency theory have had an major impact on the way sociologists and psychologists have looked upon organisations and have helped to shape management (I.E. KATZ AND KAHN, 1966; LAWRENCE AND LORSCH 1967). This has resulted in the following notions (WILKE 1987):

- the principle of self-organisation and group autonomy;
- looking at the learning capacities of individuals and groups;
- apart from the formal, technical system there are several other systems within one organisation, among them an important social system;
- equifinality: a goal can be achieved in different ways.

More recent visions on organisations share the belief that organisations should be considered as an open system. Furthermore, they state that organisational structures – informal and formal patterns of interdependency – are created to reduce uncertainties (ASTLEY AND VAN DER VEN, 1983). Interest has arisen in matrix organisations, network organisations and, in the service sector, case management. After a period of attention to the structure of organisations (I.E. MINTZBERG, 1983), the culture of organisations became the focus of management theories in the second half of the eighties (I.E. SCHEIN, 1985, MORGAN 1986) putting more emphasis on issues as corporate image and leadership.

These different theories on management and organisation have found their application in the development of Dutch industry over the past decades (I.E. BOTTER, FISSCHER AND BOER 1994) but they also had an impact on health care. Dutch hospital administrators have been applying the different theories, especially since management of hospitals was recognised since the fifties as a separate field of applied knowledge with its own process of professionalisation (see also chapter 3). How the development of hospital management and activities performed by medical specialists to plan and control their own work have, in a continuous interaction, constituted the present practice of quality management will be explained in chapter 5 and chapter 8. Here it seems relevant to state that in the hospital setting ideas on management are transient with prevailing general management theories. Harteloh and Casparie (1991) label the quality-management approaches influenced by the more recent management theories as 'modern' in contrast to the 'traditional' forms of quality assurance in health care, based mainly on evaluation methodologies originating from the domains of medicine and the social sciences. Although this distinction seems correct when one considers the development of different quality-management activities in a global way over a relatively short period of time, the distinction seems less helpful in developing a uniform language for specialists and administrators on mutual management activities and the transformation of already

existing quality-management activities in activities that cover a broader range of the dimensions included in the quality concept. Both the 'modern' and 'traditional' approaches towards quality of care are based on very heterogeneous management theories and are less consistent than terminology suggests. Furthermore, theories and empirical evidence on the development of 'quality systems' suggest that more specific phases in the development of quality management can be identified (see also chapter 2, 5 and 8).

What recent theories based on the systems approach make clear is that the notions of the 'self-learning system' (I.E. ARGYRIS, 1992, GARVIN, 1993) are similar to the notions included in the concept of quality improvement (i.e. continuous quality improvement) – hence the preference to use the term 'quality management' in this study, as a tribute to the fact that management theory shaped the approach towards quality. Especially management theories that promote self-learning, team building and involvement of professionals in process control and system design in an organisational setting sensitive to customer needs and demands (both internal and external) seem appropriate when studying quality management of medical specialist care in the nineties in The Netherlands. Simultaneously, theories on leadership and innovation and theories on management of professionals (I.E. VAN DELDEN 1992, WEGGEMAN 1992) are helpful in exploring the nature of quality management of medical specialist care.

In summary, the theoretical development of the quality concept in industry is contingent with the development of management theory. The term 'quality management' may be considered a tautology. However, the concepts that lie behind the term 'quality' and the synthesis of different goals it implies (implied and stated needs) make the term 'quality management' a useful tool when describing intentional activities to deliver health care aimed at realising varied implied and stated needs. Built on a concept of quality that combines the object and capacity approach, quality management can serve as an act of integration in a health system with a strong tendency towards differentiation.

1.5 *Quality management of medical specialist care*

So far definitions have been given for the terms 'quality', 'management' and 'care'. The task remains to come forward with a definition of medical specialists. In the context of this study medical specialists are physicians that are registered as a medical specialist in the register of the Dutch Specialists Registration Committee (DE ROO, 1985) and specialist care subsumes care provided by a registered medical specialist, either in person or under his direct responsibility. Although this is a circular definition, no attempts will be made to define the exact nature of medical specialisation in a nominal way. In chapter 3, the development of specialist care in The Netherlands is discussed and a historical overview will provide the reader with more insight into the nature of medical specialist care in The Netherlands.

The combination 'medical specialist care' is not only an expression of the actual activities the medical specialist performs but relates to all activities that take place under his or her responsibility. Therefore 'medical specialist care' will also include some of the work done by nurses, support services like the laboratory, the pharmacy and the department of radiology, and the work of interns and residents.

In conformity with the report of the Dutch National Council for Public Health (1988) on the quality of care delivered by (medical) professionals three dimensions are recognised:

- the *technical dimension*; this dimension relates strongly to the scientific basis of medicine and examines the extent to which scientific knowledge is actually transferred in professional performance;
- the *interpersonal dimension*; this dimension reflects the behavioural and communication skills of the physician to integrate the demands of the patient and medical abilities into satisfying needs that meets the standards of medical effectiveness as well as the satisfaction of the patient;
- the *organisational dimension*.

In administration sciences two different processes are distinguished within an organisation, the production process and the management process. The production process is the total of logistical operations aimed at realising the product, and the management process is characterised by planning and control (BOUMA, 1982, GROOT, 1988). These two processes can also be recognised in the work of a physician, especially if he works as a specialist in the organisational context of a hospital.

The production process can be seen as the doctor-patient interaction. This interaction constitutes the contribution of the specialist to the primary process that takes places in the hospital: patient care. Apart from this production process, a management process can be recognised. The management process of the medical specialist care consists of planning and control. In the daily work of a physician these two processes (production and management) will be difficult to discern. Part of the planning and

controlling takes place during activities that are also elements of the production process (for instance clinical rounds). It is important to realise that the work of the physician includes these two different processes. By studying them carefully it will become clear that the responsibilities of a physician include more than a series of patient/doctor encounters but that there is also a management responsibility related to the planning and control of medical work from a medical scientific as well as an organisational perspective. Management of specialist care ideally integrates the medical goals for individual patients with the actual possibilities in terms of time and resources and evaluates the actual practice. Hence, the work of a medical specialist should not only be considered as problem-based (focused on ad-hoc problems of individual patients) but also process based (focused on care processes of individual as well as groups of patients).

Management of a hospital is usually associated with the hospital administration, and hospital administration is mostly associated by physicians with constraints on their professional activities. It is quite understandable that the notion 'management of specialist care' is not very well recognised as a professional responsibility (see also chapter 3 and 5). However, in this study the term 'management' applies to activities related to the planning and control of care delivery initiated by specialists as well as to activities of hospital administrators. Management of medical care performed by specialists is, for example also hidden behind terms like 'practice evaluation', 'medical audit' and 'peer review' and can be found in activities such as 'clinical rounds', 'record-keeping' and 'committee and staff meetings'. The concept 'quality of care' is often taken by the medical profession as the vehicle for the development of activities that in a neutral meaning of the word constitute management of specialist care.

Thus the concept 'quality management of medical specialist care' contains in its essence two different operational ways of looking at the 'production process' of the physician: the 'what' (finding its roots in medical science) and the 'how' (the actual practice in its organisational context). In addition to these two rational and operational approaches, the concept 'quality management of medical specialist care' subsumes an underlying value: caring for patients. These three approaches overlap with the three important dimensions of the quality of medical specialist care that were identified earlier: effectiveness, efficiency and patient satisfaction. By using one term 'quality management' an attempt is made to integrate these different notions where other terms have often separated them in an unproductive way. The different dimensions and implications of the theoretical concept 'quality management of medical specialist care' will be demonstrated by analysing the actual practice of specialists care in The Netherlands. For this analysis a methodological framework with key questions will be constructed and discussed in the following chapter.

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Chapter 2
Methodology of the study

"The external conditions which are set for (the scientist)
by facts of experience do not permit him
to let himself be too much restricted
in the construction of his conceptual world,
by the adherence to an epistemological system. He, therefore,
must appear to the systematic epistemologist as a type of
unscrupulous opportunist..."

Albert Einstein: *Philosopher Scientist*, ed. P.A. Schilpp, New York, 1951, pp. 683f, as quoted in Feyerabend, *Against Method* (1975:10)

2.1. INTRODUCTION

In this explorative study of the nature and development of quality management of medical specialist care in The Netherlands two central questions will be examined:

- What is quality management of medical specialist care?
- How does quality management of medical specialist care develop?

To answer these questions the reader will be presented with the results of an eleven year process of induction, deduction and verification, systematised more formally since 1989, in which several theories are linked with a variety of data sources and empirical material. In this chapter the background and methodology of the study will be discussed in more detail (2.2-2.4). A series of more specific questions will be formulated, derived from the various theoretical perspectives (2.7), that will serve as a framework with the help of which the empirical material (2.8) will be systematically explored. The 'what' and 'how' questions on quality management of medical specialist care can only be answered by considering quality management in the context of the functioning of medical specialists in hospitals in the Dutch health-care system. Therefore, apart from an analysis of quality-management activities on the micro level of medical practice, the analysis needs to be extended to the meso level of the hospital as the organisational context of professional practice and the macro level of the

health-care system that constitutes the context for medical specialists as a profession. The theoretical basis for exploring the 'what' question will mainly be sought in theories about quality and management. These theories have already been described in the previous chapter. For answering the 'how' question, innovation diffusion theories will be used as the theoretical point of departure. These theories are further discussed in this chapter (2.5, 2.5.1-2.5.6). Although theories on quality, management and innovation diffusion will be at the core of the study, given the object of reflection, activities performed by medical specialists in Dutch hospitals, relations will be sought with professionalisation theory (2.6), organisation development theory (especially in chapter 5) and theories on health-care systems development and health policy (especially in chapter 3). This broad and eclectic theoretical perspective is necessary to provide sufficient insight into the underlying forces that shaped and still shape quality management of medical specialist care in Dutch hospitals. Inherent to the different notions behind quality and intentions behind management it will become evident that, complementary to the 'what' question (the nature of quality management) and the 'how' question (the development of quality management), the 'why' question will be addressed continuously to put the development of quality management in the context of the dynamics related to the position of medical specialists in Dutch hospitals and the Dutch health-care system.

In the text, paragraphs where empirical data give rise to theoretical insights and paragraphs where theory is used to interpret specific empirical findings alternate, as was actually the case in the research process. To structure the process of induction, deduction and verification, a general framework with key questions for analysis will be set up in this chapter, based on the presented theories (2.7). This framework will be used throughout the study as a set of questions that should be addressed when analysing the empirical material or summarising personal experience. Furthermore, an overview will be given of the data sources and empirical material that will be the focus of analysis in the respective chapters of this study (2.8). In the last paragraph of this chapter issues of validity and generalizability in relation to the study will be addressed (2.9).

2.2 WHY THIS STUDY OF QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE?

The reasons for performing a study of this particular topic are threefold: scientific, practical and personal.

As already stated in the introduction, the author has worked as an adviser on quality assurance issues for medical specialists in Dutch hospitals for over ten years. Gradually the intention to synthetize the experience in a scientific way has arisen. Over the years the insight grew that the application of management and innovation diffusion theories

as well as theories on professionalisation, organisational development and health system development are helpful in understanding the practice of medical specialist care and can be beneficial in solving problems as perceived by the specialists themselves. It is surprising to see again and again how problem-solving processes taken up by medical specialists under headings as peer review and practice guideline development, although focusing on different topics in different hospitals, seem to follow similar routes and are influenced by identical factors that determine the success or failure of attempts to improve practice. The notion arose that activities of specialists to assure the quality of care such as peer review and practice-guideline development are not isolated instrumental activities but are embedded in processes of professionalisation (on the level of the medical profession, i.e. formalisation of medical practice), organisation development (on the level of the hospital, i.e. controlling professional performance) and health-care policy (on the level of the health-care system, i.e. relation between state and profession). The urge to unravel and understand these underlying mechanisms provided the main motivation for this study. The study tries to interpret a broad spectrum of empirical material using a theoretical framework derived from management and innovation-diffusion theory complemented with insights derived from professionalisation theories and theories on organisational development and health system development. The decision to try to achieve a synthesis of empirical material from the working field of medical specialist care (medicine) and theories that originate from the domain of the social and administrative sciences also has practical reasons. Research should preferably have some direct use to the subjects of the research process. Providing more insight into the underlying mechanisms of the development of quality management of medical specialists care might perhaps help medical specialists understand better the nature of their work, and the hindrances they come across when trying to implement change. Thus the results of this study may assist them and others that either depend on them or try to influence them, to achieve improvements in a more effective and efficient way. It seems a paradox that the research design used in this study is probably alien to most practising physicians. The quantitative, causal-determinist approach mostly used in natural sciences, characterised by an experimental situation in which variables are to a large extent controllable (i.e. clinical trials), cannot be applied to obtain the answers to the research questions that are posed in this study. This is not only the case in this particular study, but is a general problem of choosing appropriate research methodologies in the emerging field of research on quality of care (KLAZINGA 1994D). It also poses a problem of communication. To achieve the practical goal of this study it is necessary to communicate between groups (medicine, social sciences, management) who hold widely different assumptions about the nature and significance of research and consequently have different ways of valuing research results. Therefore the objective of this

study is not only to meet the necessary criteria of a scientific approach in answering the research questions[1], taking into account generalizability and validity as much as possible, but also an attempt to communicate across the barriers of different scientific cultures and practices. In this respect the study follows the personal development the author went through: having been initially trained in natural sciences (biology and medicine), with additional training in management and having entered the arena of the social sciences during the past four years.

2.3 WHAT IS THIS STUDY OF QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE?

The study presented here is an analysis and a synthesis, based on several theoretical concepts, of a variety of field material and personal experience at the macro, meso and micro level of the health-care system. For the macro level, relevant policy papers and publications on health policy have been used as a source. Apart from that, the author has been actively involved between 1989 and 1995 in the national process of policy-making in the domain of quality of care. For the analysis of the situation on meso and micro level (hospital and medical practice) a similar approach has been taken. On the one hand the selection of the field material, driven by the urge to explore the research questions, has been pragmatic: material that was available and accessible to the author has been used. On the other hand the material covers a wide area of peer-review studies, practice guidelines and experience in practice that reflect sincere attempts of medical specialists in hospitals to set up quality assurance activities. Through this approach the words of Freidson are taken into account:

> *"It is essential for analysts to study not only how policies are established on the level of the corporate board or the state ministry but also how they are actually carried out in the workplace."*
> (FREIDSON 1993:64)

Both the realities of practice and the rhetoric of policy-making are taken as the focus of analysis. The representativity of the analysis at meso and micro level is enlarged by analysing the situation for many different clinical areas of specialist care of which a majority are selected on the bases of standardised priority setting procedures among specialists (see chapter 6) or are based on systematically developed practice guidelines (chapter 7).

The methodology of this study to acquire new knowledge comes closest to the eclectic-pluralist approach as described by Southgate and Randall (1981). Characteristic for the eclectic-pluralist method is that it consists out of providing descriptions, compari-

[1] *According to Donker (1990:321) these criteria are: logical argumentation, intersubjectivity, systematic research method and systematized knowledge.*

sons, correlations and generalizations. In this type of research the researcher tries to understand some unfamiliar area of knowledge. The research aims at breath: the field of investigation is totally open and structures are more important than detailed functions. In other literature on research methods this type of research would be labelled as qualitative and is by its nature both descriptive (what is quality management) and explorative (how does it develop) (STRAUSS 1987, POLGAR AND THOMAS 1991, MORSE 1992). The research methods used also have a lot in common with case study research (YIN 1993). The intellectual process involved has been a continuous flow of induction and deduction going to and from between theory and practice. Although initially quantitative research methods have been sought, the nature of the problem studied appeared to be such that a qualitative approach seemed more suitable to address the research questions. The qualitative paradigm assumptions seem to apply to this study (CRESWELL, 1994 AFTER FIRESTONE 1987, GUBA AND LINCOLN 1988 AND MCCRACKEN 1988): the reality (of quality management) is subjective and multiple as seen by the different actors in the healthcare field (ontological assumption on the subjective nature of the reality studied). The researcher interacts in the domain that is studied (epistemological assumption; the researcher interacts in qualitative research versus an independent positioning in quantitative research). Values play a role (axiological assumption) and although formal definitions are provided the language used in this qualitative research study is often more informal and personal opinions are expressed compared with the formal rhetoric in quantitative research (rhetorical assumption). The research process has to a large extent been inductive with mutual and simultaneous shaping of explanatory factors (methodological assumption). Thus the design of the study has emerged gradually and categories (for example the coding categories in chapter 6 and 7) were identified during the research process.

The use of a variety of theories provided a sufficiently broad theoretical base of propositions which proved useful for understanding the full nature of quality management and its development. A wide array of theoretical perspectives on various manifestations of quality management of medical specialist care, using different research methods, proved necessary to explore this complex phenomenon. Personal experience gained in practising (or advising on) quality management, on the practice as well as on the policy-making level, has been an important input to the analysis performed in this study. In summary, this study of quality management of medical specialist care is based on a body of knowledge generated by practical experience *and* eclectic scientific research. It is, as stated in the title, an explorative study of the phenomenon 'quality management of medical specialist care'. The research questions on the nature and development of this phenomenon asks for an explorative approach rather than a design based on the testing of hypothesis generated beforehand.

2.4 HOW HAS THIS STUDY OF QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE BEEN SET UP?

In the previous chapter both the concepts of quality and management have been discussed extensively. Quality was defined as: the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs. It was also explained that ultimately the goal (of medical specialist care) is subjective by nature (health experienced by a patient) but should be approached as an object to make it operational. Thus on a conceptual level a distinction has been made between the perspectives of medicine (medical effectiveness from a scientific point of view), patients (patient satisfaction), management (organisational efficiency) and society (economic, ethical and social constraints). These different underlying conceptual notions should be reflected in the framework for analysis of this study. To answer systematically the basic research questions of the study, 'what is quality management of medical specialist care and how does it develop?', all empirical material labelled as such is analysed by questioning the 'why', 'what' and 'how' of the phenomena. These questions are common for evaluative research in general (DE GROOT 1961) and explorative qualitative research in particular.

Thus, when one looks at activities to manage the quality of medical specialist care the first question that is put in the framework for analysis is:

I — *Why are activities performed and labelled as quality management of medical specialist care, and how do they relate to the overall definition of quality?*

To explore the 'why' question use will be made from professionalisation theory (especially in chapter 4), theory on organisational development and especially theories on the role of professionals in institutional settings (chapter 5) and socio-economic theories related to health system development (chapter 3)

In concordance with the 'quality of care' concept described in chapter 1, quality-management activities will be analysed to the extent that they address the dimensions of medical effectiveness, organisational efficiency and patient satisfaction given the socio-economic context in which health care is delivered. The management concept described in chapter 1 is anchored in the terms 'plan' and 'control'. The development of management theories and the shift from mechanical to the human-resource approaches was explained, demonstrating that theories and opinions on how to execute planning and control are subject to change. The second question in the framework of analysis is:

II — *What is the nature of activities identified as quality management of medical specialist care?*

It addresses the quality dimensions covered, as well as the management theories implied.

Especially in chapter 6 and 7, when considering quality-management activities such as peer-review studies and practice guideline development, an attempt will be made to unravel the underlying notions on quality and management approaches. It will become clear that the 'what' question addresses the clinical decision-making process as well as operational decisions related to the care-delivery process. In other words the question 'what to do' addresses the scientific dimension of medical decision making as well as the logistic dimension of concrete medical actions. This is the consequence of considering the planning of medical specialist care as an intertwinement of clinical decision-making (referring to medical science as an important supportive rationalisation process) and operational decision-making (referring to organisational logistics as an important rationalisation process). Therefore the 'what' question will also focus on the way scientific knowledge combined with empirical (expert) knowledge of specialists is, through practice guidelines and peer review studies, transferred into professional behaviour. And successively how this behaviour meets the expectations of patients and is transient with the organisational setting.

The 'how' question explores the concrete operationalisations of activities already described through answering the 'what' question but looks in more detail at the way these activities are built in the work of the medical specialist and the broader organisational context of the hospital. Its answering helps to explore the 'control dimension' of quality management of medical specialist care.

The 'how' question will be posed on different aspects: the who, where, when, information and feedback level. All these subquestions can be derived from the 'control dimension' of management. They result in the following subquestions:

IIIA — *Who should perform the quality-management activities? (assignment of responsibilities)*
IIIB — *Where should it be done? (localisation)*
IIIC — *When should it be done? (timing)*
IIID — *What information is available to control the process? ('informatisation')*
IIIE — *How is feedback given to adjust the process? (practice evaluation)*

The 'why', 'what' and 'how' questions will be posed systematically whenever an example of quality management of medical specialist care is identified, thus ensuring systematic description and interpretation. Although the processes in these examples are different, the assumption is that the underlying mechanisms are similar and a systematic analysis will help to enlarge the insight into the nature and problems of quality management of medical specialist care.

The theory on quality and management and the theories on professionalisation, organisational development and health system development will help to answer the research questions posed at the beginning. However, to answer the question on the *development* of quality management of medical specialist care not only at the macro level, but as well at the meso and micro level, it is necessary to introduce an additional theoretical perspective that helps to understand the implementation (or lack of implementation) of quality-management activities over time. In this study the perspective of the development and diffusion in time will be introduced by analysing quality-management activities related to medical specialist care from the point of view of innovation theory.

2.5 THE CONCEPT OF INNOVATION THEORY AS A THEORETICAL MODEL TO ANALYSE THE DEVELOPMENT OF ACTIVITIES TO MANAGE THE QUALITY OF MEDICAL SPECIALIST CARE

Before providing for the framework of analysis the questions that will be asked when one looks at the development of quality-management activities from an innovation-theory perspective, it is necessary to explain these theories in more detail. Innovation theories have much in common with theories on change, both on an individual and on an organisational level. Roughly speaking, a distinction can be made between innovation theories that take the diffusion process of the innovation as their focus and theories that concentrate on the change processes in social systems that are involved in innovation. For this study both complementary perspectives are relevant but emphasis will be put on the characteristics of the diffusion process in time rather than on the dynamics of change on one moment in time. This explains why in this paragraph an overview of innovation theories will be presented that all imply change, but where change is not the principal concept. In industry innovation is usually perceived as the development of a new technology or idea but innovation is also used for describing the diffusion of new practices. During (1986:9) describes industrial innovation as the realisation of a new product-market-technology combination. In his view, the innovation process is a combination of three interrelated subprocesses: problem solving, internal innovation/diffusion and organisational change. Problem solving is a cycle of four phases: creation, selection, conception and application. The internal innovation diffusion consists of two phases: initial knowledge and attitude formation. Organisational change relates to the four subsystems of people, resources, processes and structure (DURING 1986:186).

Sometimes, authors are interested in the roots of innovations and the creative process involved in problem solving (for instance new discoveries) (SMITH, 1987), but most of the

time the diffusion of innovations is the focus of attention. The work of E. Rogers (1962) is the most well-known in the area of diffusion of innovations. He describes an innovation as an idea, practice, or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behaviour is concerned, whether or not an idea is 'objectively' new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. If the idea seems new to the individual, it is an innovation (ROGERS, 1983:11).

When an innovation process is defined as a process aimed at the realisation of ways of practice performance (activities, working methods) that are new for a certain organisation, the introduction of more formalised methods for quality management can be seen as such (KIMBERLEY 1978). Strictly speaking the development of quality-management practice looks at two different innovations:

- the activity of quality management itself (the application of the technique)
- the topic that is the focus of quality management (the topic on which the technique is applied)

In the framework of analysis these two different levels will be distinguished, although in real life there is strong interaction between the change in practice behaviour that is aimed at and the introduction of the method through which this change in behaviour should be achieved.

2.5.1 Characteristics of an innovation

Blauw (1988) recognises six important characteristics of innovation based on the work of Rothwell (1977), Kelly (1975), Zaltman (1973), During (1984), Buijs (1984), Rogers (1983) and Hage (1980):

- innovation starts with the recognition of a gap: a difference between wishes and reality;
- innovation is a process aimed at the introduction of new activities or working methods;
- innovation is a problem-solving process in which creativity, decision-making and use of information are strongly intertwined;
- innovation is a process related to organisational change;
- innovation is a process of diffusion of ideas within a social system;
- innovation is a process that consists of several phases.

These six characteristics will be discussed further in chapter 4 and 6 when applied on the methodology and results of peer-review studies and in chapter 7 when applied on the methodology of the CBO consensus development programme for practice guidelines. The six characteristics identified by Blauw bear a lot of resemblance with the objectives of quality management (see 1.4). This strengthens the choice to take innovation theory as the theoretical point of departure to study quality management.

2.5.2 *Rogers' innovation-diffusion theory*

Rogers defines innovation diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system (ROGERS, 1983).

In his theory the innovation itself, time, communication and the social system in which the innovation diffuses are crucial elements of the process. Another approach which Rogers takes in his book is identifying the characteristics of both the innovation itself and the receiving adopters that seem to be relevant for the success of the diffusion of the innovation. The innovation characteristics mentioned by Rogers are:

- *relative advantage*: the degree to which an innovation is perceived as being better than the idea it supersedes;
- *compatibility*: the degree to which an innovation is perceived as consistent with existent values, past experiences, and needs of potential adopters;
- *complexity*: the degree to which an innovation is perceived as relatively difficult to understand and use;
- *trainability*: the degree to which an innovation may be experimented with on a limited basis;
- *observability*: the degree to which the results of an innovation are visible to others.

Rogers identifies the following five categories of adopters: innovators (venturesome), early adopters (respectable), early majority (deliberate), late majority (sceptical) and laggards (traditional). According to the theory of Rogers, that was developed on the basis of a wealth of empirical evidence, several variables determine the rate of adoption of an innovation. Apart from innovation and adopter characteristics the decision-making process, communication channels, the social system and change agents play an important role.

2.5.3 *The applicability of innovation theory for studying the implementation of quality management in health care*

In medicine the field of technology assessment has traditionally been interested in innovation theories as the basis of acquiring knowledge about the development and diffusion of new technologies (GREER 1985, GELIJNS 1991). When the definition of a technology was, however, broadened to include aspects of human invention or activity and by adding to Technology Assessment the assessment of effectiveness under everyday conditions to the assessment of efficacy under ideal circumstances (DONABEDIAN, 1988), the boundaries between TA and QA became less clear. The field of quality assurance overlaps with the field of Technology Assessment and both are complementary to each other (KLAZINGA, 1990). With the broadening of the term 'technology' the interest in innovation-diffusion theory seems to have spread to the

field of QA. Innovation-diffusion theory was initially applied for the diffusion of practice guidelines that were formulated on a national level (LOMAS AND HAYNES, 1988, GROL 1992, KAASENBROOD 1995) and, in a superficial way, for the diffusion of peer review among Dutch specialists (KLAZINGA, 1989). In the field of quality assurance different authors have perceived the introduction of quality management either as an innovation (BLAUW, 1988, KALUZNY 1982) or as a process of growth (CROSBY, 1979, MILLER AND FLANAGAN, 1988). Donabedian also agrees with considering quality management (in his text quality assurance) as an innovative technology that diffuses when he states:

> *"It is quite legitimate to consider the monitoring of (medical) performance to be a technology or a complex of technologies, some organisational and others more material in nature and the factors that influence its effectiveness are to be sought in the nature of the activity being monitored, the properties of the monitoring mechanism itself, and the characteristics of the environment in which monitoring takes place."*
> (DONABEDIAN, 1991:64)

Kaluzny (1982) discusses the applicability of the diffusion perspective and the adopter perspective for further research in which quality assurance is considered as a management innovation. He mentions two reasons why the diffusion perspective has limitations when looking at quality management as an innovation. The first is that quality management is rarely implemented totally, the second limitation on applying the diffusion perspective is the not-so-newness of quality-management activities. While quality management may be termed an innovation, in many cases it is simply a relabelling of previous ongoing activities.

As we will see later (for example in chapter 4) this will also prove to be true for empirical material analysed in this study, especially activities on the macro level of the health system where the policy vocabulary contains a lot of quality-related terms. Kaluzny also states that a review of innovation literature in the health services field reveals a distinction frequently made between technological and programmatic innovations. However, the diversity of quality-management activities as a managerial innovation requires a more refined classification scheme. Such a scheme will be provided in chapter 4 where more recently developed forms of quality management such as peer review and guideline development will be placed in the overall framework of activities of the medical profession to assure (control over) the quality of professional practice.

Some research has been performed on the generalizability of factors associated with different types of innovation in health care. Nathanson and Morlock (1980) distinguish between social and technological innovations and find that hospital conditions favourable to social innovations differ from those conducive to more technological innovations. Similarly Daft and Becker (1975) and Daft (1978) report that organisational and

environmental factors associated with innovation activity in one area of the organisation may not be associated with activity in other areas.

Recently Shortell et al. (1995) reported the results of a study among 61 USA hospitals where they examined the relationships among organisational culture, quality-improvement processes (i.e. the innovation) and selected outcomes of care. Their conclusion is that what really matters is whether or not a hospital has a culture that supports quality improvement work and an approach that encourages flexible implementation. Larger-size hospitals in their study faced more difficulties in this regard (see also paragraph 8.3.3 where the findings of the Shortell study are discussed in relation to the findings of this study of quality management of medical specialist care in Dutch hospitals).

Another important notion that combines the adopter and the diffusion approach is mentioned by Shulz and Slevin (1975). They state that attention should also be given to the basic design of quality-management activities themselves and their compatibility with the characteristics of the implementing organisation. They refer to this compatibility as organisational 'fit' between the innovation and the organisation.

To summarise, 'innovation theory' has so far generated a number of relevant notions that should be taken into account when analysing the development of quality management of medical specialist care. Both the development of quality management and the topics it studies can be considered as an innovation, therefore the analysis should focus on the process of change in health care as well as to the methodology used.

When we take Rogers' innovation-diffusion theory as the main theoretical perspective, the following elements should be studied when analysing empirical material. Elements to be looked at c.q. questions to be included in the framework for analysis when exploring the development of quality management, are:

IV A — *the characteristics of a quality-management activity as an innovation;*

IV B — *the decision-making process related to the introduction of a quality-management activity;*

IV C — *the communication channels through which a quality-management activity is introduced;*

IV D — *the nature of social systems that are supposed to adopt the quality-management activity;*

IV E — *the role of change agents in the introduction of quality management;*

IV F — *other innovations and organisational change that run parallel to the introduction of a specific quality-management activity.*

2.5.4 *Advantages of process theory compared to variance theory when studying the diffusion of an innovation*

According to Rogers (1983:194) most innovation diffusion research is variance type investigation. It uses highly structured data gathering and quantitative data analysis of cross-sectional data, such as come from one-shot surveys. Since only one point in time is represented in the data, variance is a dependent variable related to the variance in a set of independent variables. Variance research seems less appropriate for exploring the nature of the innovation-diffusion process. Here one needs a dynamic perspective to explain the causes and sequence of a series of events over time. Data-gathering methods in process research (LE YIN 1993) are usually less structured and the data are typically more qualitative in nature than they are in variance research. Seldom are statistical methods used to analyse the data in process research.

The conceptual differences between variance and process theory are extensively described in the work of Mohr (1978). He states that in process theory, a precursor (X) is a necessary condition for the outcome (Y). Process theory eschews efficient causality as explanation and depends instead on rearrangement – that is, on the joining or separation of two or more specified elements rather than on a change in the magnitude of some elements. Whereas a variance theory explains a behaviour or a characteristic of an object, a process theory explains the pairing or other rearrangement of mutually autonomous objects. For Mohr the main characteristics of process theory are that it deals with discrete states and events, it deals with a final cause, and time ordering among the contributory events is generally critical for the outcome.

The research approach taken in this study, while trying to answer the question how quality management of medical specialist care develops, follows the lines of process theory rather than the lines of variance theory. This is inherent to the nature of the unit of focus: the diffusion of innovative methodologies aimed at medical specialists with the final goal to assure or improve the quality of the care they deliver. As a consequence the study is, as mentioned earlier, more qualitative than quantitative and tries to demonstrate the dynamics in the 'pairing and rearrangement of mutually autonomous objects' over time looking at the mechanisms that constitute the verbalisation and actual practice of 'quality management of medical specialist care'. Given this process approach, the recognition of the various phases in the diffusion of an innovation is important.

2.5.5 *Phases in the diffusion of an innovation*

Different authors distinguish different phases of innovation. Cozijnsen and Vrakking (1986) discern the actual innovation (birth of new ideas), initiation (introduction), and implementation.

Especially in industry several attempts have been made to identify the different steps in the development of quality management. Neijzen and Trompetter (1989) give a summary of the steps identified in the models of Lewin/Wissema, Crosby, Boomsma and Van Borredam and the Dutch Ministry of Economic Affairs. Another model on the growth and development of physicians in quality assurance is given by Miller and Flanagan (1988). The most well-known maturity grid, based on experience in industry, is provided by Crosby (1979).

Similar steps can also be identified based on experience at CBO with the introduction of peer review among specialists in hospitals as a quality management method in Dutch hospitals. The following steps can be recognised empirically:

- orientation phase;
- introduction phase;
- experimentation phase;
- embedding phase;
- broadening phase.

During the orientation phase specialist show interest in quality management and they like to get informed. This does, however, not result in any further action. In the introduction phase time is spend on the creation of an infrastructure for quality management and the assignment of responsibilities. In the experimentation phase some concrete topics are selected for peer review but these initiatives are still considered as ad-hoc events. In the embedding phase performing peer-review studies has become a systematic activity and an integral part of medical practice. During the broadening phase quality management widens its scope from specialist care to other areas of professional care and the quality initiatives of the hospital administration. The ideal is an integrated quality system for the whole hospital of which quality management of specialist care is an integrated part. In chapter 5 and chapter 8 this five-step implementation model will be related to the phases discerned in the theory on the development of quality systems in organisations (ISO, *Nederlandse Kwaliteitsprijs*, EFQM, TQM/CQI): orientation, project orientation, process orientation, system development, chain orientation and Total Quality Management.

The implementation of practice guidelines among practitioners can be considered from an implementation model with seven hurdles that is derived from communication theory, relating to the change theory in psychology and sociology (KLAZINGA, 1994B). The steps recognised here are: attention, understanding, acceptance, social acceptance, practical introduction and lasting change.

The above-mentioned step models all have their own rationale and are mostly based on a mixture of theoretical notions and empirical findings. In this study different step models will be used depending on the type of quality-management activities analysed. When looking at peer-review activities (chapter 6) the CBO model will be referred to. The guidelines model will be used in chapter 7 and the EFQM model when discussing the development of quality systems in chapter 8. For the framework for analysis the following specific element/question is added:

IVG — *The development of the innovation over time in accordance with different phases.*

Different steps do not necessary follow in one direction, it may happen that specialists in a hospital fall back with their quality-management activities to a lower step in the 'maturity grid'. As explained earlier, the continuous process of the development of quality management of medical specialist care will be the focus of this study rather than an analysis of the existing variance on a certain moment in time. Therefore large parts of the text will be of a descriptive ('story telling') nature, trying to relate the different variables and the sequence in which they appear over time in terms of the presented explanatory theoretical models.

2.5.6 *Innovation-diffusion strategies*

An element of the innovation process that has not been discussed as yet is the strategy used to achieve the innovation. Zaltman (1977) tried to integrate the literature on innovation theory and organisational change. He postulates four different strategies:

- Facilitative strategies: "Those strategies which make easier the implementation of changes by and/or among the target group. The use of facilitative strategies assumes that the target group already recognises a problem, is in general agreement that remedial action is necessary, and is open to external assistance and willing to engage in self-help."
- Re-educative strategies: "The relatively unbiased presentation of fact is intended to provide a rational justification for action. It assumes that humans are rational beings capable of discerning facts and adjusting their behaviour accordingly when presented to them."
- Persuasive strategies: "Strategies which attempt to bring about change partly through bias in the matter in which a message is structured and presented. They attempt to create change by reasoning, urging, and inducement. Persuasive strategies can be based on rational appeal and can reflect facts accurately or totally false."
- Power strategies: "Power strategies involve the use of coercion to obtain the target's compliance. This coercion takes the form of manipulation or threat of manipulation of the target's outcome."

The four strategies are related to each other in the extent that pressure is put on the system that should change.

Blauw (1988) summarised the applicability of the different strategies in relation to external circumstances. Grol (1992) and Grimshaw and Russell (1993, 1994) reach a similar conclusion in review articles on strategies for guideline implementation among general practitioners: the effectiveness of a strategy is dependent on the external circumstances and the nature of the innovation. Lomas (1988) stresses the necessity of combined strategies to be effective, discerning different effective strategies for different stages of an implementation process. Garvin (1993) puts emphasis on the possibilities of a strategy to promote learning among the members of an organisation. In the analysis of quality management of medical specialist care the nature of the strategies used in terms of persuasiveness to the medical specialists will be a point of discussion in several chapters.

The question derived from the theory on innovation-diffusion strategies to be included in the framework for analysis is:

IVH — *What is the nature of the innovation diffusion strategy used?*

This is the final question derived from innovation-diffusion to be included in the framework. The total framework will be presented in paragraph 2.7. and the material on which it will be used is presented in 2.8. However, before providing the total framework for analysis, a short introduction will be given on professionalisation theory and its relevance for studying not merely quality management but quality management of medical specialist care.

2.6 PROFESSIONALISATION THEORY AND HOW IT IS USED IN THIS STUDY

Theories on management (1.4.1) and theories on diffusion of innovations (2.5) provide a solid framework for analysing the empirical material on quality management of medical specialist care, especially as provided in chapters 6 (on peer-review studies) and chapter 7 (on practice guidelines). However, given the fact that quality management of medical specialist care is pack and parcel of the occupational activities of the medical profession, theories labelled as 'professionalisation theory' provide a valuable additional theoretical perspective.

According to Freidson (1994:2) the interest to study the professions as a separate occupational group is in the English-speaking world existing for over a hundred years. Debates on the nature and development of professions become part of the emerging discourse among sociologists. Freidson proclaims the American Parsons (1939) as being the first to address the professions in theoretical terms, trying to make sense of the

contradiction of professions showing altruistic rather than self-interested behaviour. Although there is still debate going on about the meaning of the term 'profession', the group of practitioners of medicine as an occupation, i.e. physicians, are considered a prototype of a profession (FREIDSON, 1970:4). The term 'professionalisation' is used in general (and in this thesis) to describe the process of becoming (and staying) a profession (SCHEPERS AND NIEVAARD, 1990, MOK 1973, JOHNSON 1972).

In his 'state-of-the-art description' Freidson distinguishes three types of theoretical approaches towards professionalisation (FREIDSON 1994). The first approach is the trait or attributes approach (see also JOHNSON 1972), focusing on the specific characteristics of a profession, such as a specific field of skills and knowledge, rendering a service to the public that is perceived as being important, professional autonomy and a professional culture. This theoretical approach is rather descriptive. It analyses whether certain characteristics are present and thus determines the state of professionalisation. Wolinsky (1993), identifies seven privileges for the medical profession: control on admission criteria, control on education and training, autonomy in practising, setting the boundaries of the professional domain, instrument and means to keep control in the earlier-mentioned areas and influence on income and distribution of the income among the members of the profession. Like many other authors, Wolinsky is not using the trait approach exclusively but puts it in the context of a broader theoretical perspective that touches on the two other approaches identified by Freidson.

These other two theoretical approaches are more normative. The functionalistic approach stresses the necessity of self-regulation by the profession whilst creating mechanisms for accountability. Especially till the sixties it was the dominant perspective taken in sociological writings. It emphasises the positive functions and achievements of the medical profession. More critical sounds arose in the sixties and seventies. This period marks the introduction of the third theoretical perspective the power and control approach. This approach (I.E. FREIDSON 1970, JOHNSON 1972), is far more critical about the ambitions of professions and sees professionalisation as a continuous process of professionals to get more power and influence, a process that can be damaging for society. It focuses on the political influence of professions, on the relation of professions to political and economic élites and the state, and on the relation of professions to the market and the class system.

In the literature on professions at least three different theoretical approaches can be identified towards changing professional status. These changes in status are perceived as the result of changes in the context in which the professionals do their work. In the seventies and eighties several authors, influenced by the theoretical notions of power and control, describe a process of deprofessionalisation of the medical profession (HAUG, 1973) or even proletarisation (MCKINLAY 1988). Deprofessionalisation assumes that medical power will decline when medical knowledge becomes more common and proletarisa-

tion (inspired by Marxists views) assumes a growing amount of bureaucratisation and regulation of medical practice that will decrease the influence of the profession.

During the eighties and nineties historical studies on the development of the medical profession in a given country are more and more complemented with studies that take a comparative approach (HAFFERTY AND MCKINLAY 1993, JOHNSON, LARKIN AND SAKS 1995). In more recent writings on professionalisation, the tone seems to become less critical compared to the seventies and early eighties (HAFFERTY AND MCKINLAY 1993, GABE, KELLEHER AND WILLIAMS 1994, JOHNSON, LARKIN AND SAKS 1995, FREIDSON 1994). Professionalisation is not necessarily seen as good or bad and the interaction of the medical profession with the state (I.E. JOHNSON ET AL. 1995) as well as reflections on the interaction of the medical profession with hospital management (I.E. HARRISON AND POLLITT 1994) tend to focus on mutual interdependence, transformation and the creation of new mechanisms for accountability rather than on conflicting interests and the rise or decline of professional autonomy in absolute terms. The concept of professional autonomy is not generic but seems to change with the changes in health care and the health-care system (SCHEPERS AND KLAZINGA 1993). To quote Johnson, Larkin and Saks (1995:1):

> *"The processes of resistance and change within and between professions need to be documented and understood, but within a further context of adjustments in previous relationships with the state and other major sponsoring agencies and purchasing bodies."*
> JOHNSON, LARKIN AND SAKS (1995:1)

Freidson (1994:8-10) calls this 'professionalism reborn' and emphasises that 'essential elements of professionalism are not disappearing, but rather taking a new form'. He points to the further formalisation of medical practice within the realm of the medical profession and the need to ground further theory on the professions in the actual content and changes in the content of the medical occupation:

> *"What is needed to ground theorizing about professions is the development of a genuine sociology of work that deals in a systematic fashion with such topics as the nature and varieties of specialized knowledge and skill that are embodied in work, the role of that specialized knowledge and skill in the differentiation of work into occupations, and the varied ways by which differentiation becomes organised."*
> FREIDSON (1994:8-10)

This study, although not pretending to be a major contribution towards theory on the medical profession, is in line with Freidson's theoretical concerns. The study addresses for medical specialists in The Netherlands many of the issues mentioned above. In the use of professionalisation theory an eclectic approach is taken, congruent with the nature of this explorative study. However, it is evident that the more recent theories on the medical profession as developed in the eighties and nineties are

dominant in the perspectives taken in this study. An attempt is made to balance the neutral descriptive approaches (as promoted by the trait and attribute theory) with a normative approach that is somewhat functionalistic but is far more focused on the processes of continuous adaptation and transformation within the medical profession and in interaction with its surrounding. As will be demonstrated in the following chapters, quality management of medical specialist care is at the core of planning and controlling the occupational activities and its development thus provides a good illustration of the professionalisation process. In chapter 3 and 4, professionalisation theory is mainly used to analyse the interaction between the medical profession and outside actors like the state. In chapter 4 special emphasis is put on formalisation of medical practice through quality management within the profession. In chapter 6 and 7, professionalisation theory is used when analysing the dynamics around peer review and practice guidelines and this analysis comes close to the earlier proposal of Freidson to look at the mechanisms that determine the planning and control of medical practice among the professionals. The results are discussed in separate paragraphs 6.7.2 and 7.10. Finally an attempt is made to use professionalisation theory to analyse the integration of quality management of medical specialist care with the development of quality systems in hospitals. The results of these reflections are provided in paragraph 8.4.6.

2.7 THE SET-UP OF A FRAMEWORK FOR ANALYSIS

Innovation theory (2.5) and professionalisation theory (2.6) explained, it is now possible to set up the full framework for analysis, completing the 'backbone' that was already provided in paragraph 2.4. The framework for analysis that will be constantly behind the following chapters where the nature and development of quality management of medical specialist care in Dutch hospitals will be explored contains the following elements:

I **Why are activities performed and labelled as quality management of medical specialist care and how do they relate to the overall definition of quality?**

Exploration of the reasons behind the introduction of quality-management initiatives considering quality from the perspective of medical effectiveness, patient satisfaction, organisational efficiency and social concerns using theories of professionalisation, organisational development, and health system development ('why' questions).

II What is the nature of activities identified as quality management of medical specialist care?

Exploration and description of the nature of quality management looking both at the medical scientific side (decision making) and the organisational/managerial side (practice) as related to prevailing theories on management in general and especially the 'planning dimension' of management ('what' questions on nature).

III Who should perform the quality-management activity (A), where should it be done (B), when should it be done (C), what information is available to control the process (D) and how is feedback given to adjust the process (E)?

Exploration and description of the nature of quality management looking at the managerial characteristics with respect to the control dimension of management. ('how' questions on nature)

IV How does quality management, when considered as an innovation, diffuse?

Exploration and description of the development and implementation of quality management of medical specialists care in Dutch hospitals analysing the activities labelled as such from the perspective of change theory in general and innovation theory in particular ('how' questions on development).

Innovation is considered at two levels: the actual innovation in care (the content matter of the quality-management activities) and the quality-management activities itself (in terms of infrastructure and strategies used to plan and control).

The following elements are part of the frame of analysis:

- the characteristics of the innovation (A);
- the decision-making process (B);
- the communication channels (C);
- the nature of the social system (D);
- the role of change agents (E);
- other innovations and organisational change (F);
- the development of the innovation over time in accordance with different phases (G);
- the nature of the innovation diffusion strategy used (H).

This why-what-and-how framework will be the screen against which the following chapters are composed. To make the text readable all points will not be repeated explicitly all the time, but the framework will be noticeable behind the descriptions of the empirical material.

2.8 GENERAL OVERVIEW OF DATA SOURCES USED IN THIS STUDY

The material described in the following chapters was assembled by the author during a period of over ten years, in which he worked as a consultant on quality management for specialists in Dutch hospitals and gaining experiences through the participation in several research projects and policy-making bodies involved in quality management. Part of the material and findings have been published previously. The following listing provides an overview of the empirical material used in the different chapters of this book and related previously published papers.

Set-up of chapter 3: Quality management policies of specialist care: history and development

This chapter is based on an analysis of publications and policy papers that describe the history of health policy in The Netherlands in general and the specialisation of medical care in hospitals in particular. Another source of information is the active participation of the author in health policy issues, especially related to quality of care, during the past seven years.[2]

Set-up of chapter 4: The development of quality management of medical specialist care through quality systems within the profession

This chapter draws from the same sources as chapter 3. However, for the writing of this chapter the following specific analyses have been performed:

- an analysis based on policy documents and annual reports of the Dutch Specialists Association covering the period 1974-1992;
- an analysis based on policy documents of the Royal Dutch Medical Association (KNMG) covering the period 1980-1992;
- an analysis of the results of interviews with board members of Scientific Societies, held by CBO 1988-1989;
- an analysis of a series of articles on the Quality Management Policies of the different Scientific Societies of medical specialties as published in *Medisch Contact* 1989-1991;
- an analysis of the results of interviews between the secretary of state for health and the board;
- members of scientific societies 1993-1994.

Part of the ideas presented in this chapter can be found in earlier publications.[3]

[2] KLAZINGA 1995.

[3] KLAZINGA (1992), KLAZINGA AND CASPARIE (1993), SCHEPERS AND KLAZINGA (1993), HERK VAN, KLAZINGA, SCHEPERS AND CASPARIE (1995), KLAZINGA (1996).

Set-up of chapter 5: Operationalisation of quality management of specialist care in the hospital

The operationalisation of quality management in this chapter is based on a model developed during the hospital audit project, 1985-'88, in which the author was one of the researchers.

Discussions on the tasks and responsibilities of medical specialists in relation to interns and residents will be based on two studies on 'house staff development in Dutch hospitals' in which the author participated, performed under the aegis of the National Hospital Institute in 1987 and 1989.

Furthermore, results of the preassessment phase of a European Concerted Action Programme in the 15 participating Dutch hospitals will be used to give an impression of the different types of quality-management activities. The Dutch experience will be put in an European perspective by comparing the Dutch data with the results in the total group of 267 participating hospitals.

Some ideas about the relation between structural, process and outcome elements of Quality Management are illustrated with the results of the European study. This study was performed under the aegis of the COMAC programme of the European Union and the author has been the project co-ordinator for this endeavour.[4]

Set-up of chapter 6: The selection of topics for quality management: an analysis of 101 priority meetings to select topics for peer review, held between 1977 and 1992 in 51 Dutch hospitals

This chapter contains an analysis of 100 priority meetings held with groups of medical specialists and conducted by CBO staff between 1976 and 1992. Furthermore, personal experience with the execution of peer-review studies by specialists in hospitals over a period of 10 years is used as an information source. This material is selected for analysis because it represents empirical material on quality management through peer review by specialists in a large group of Dutch hospitals whilst the process of topic selection was standardised through the method of priority meetings.[5]

[4] BEDAUX, KLAZINGA AND VELDE (1986), KLAZINGA (1987), BEDAUX, KLAZINGA, SCHOOL (1988), KLAZINGA (1988), BEDAUX, DUBBELBOER, KLAZINGA (1988), KLAZINGA (1991), KLAZINGA (1994).

[5] EVERDINGEN VAN, KLAZINGA AND CASPARIE (1988), KLAZINGA AND HELSLOOT (1989), EVERDINGEN VAN, KLAZINGA, BROEK VAN DEN AND MOUTON (1990), KLAZINGA AND REERINK (1990), KLAZINGA (1994C), KLAZINGA AND GIEBING (1994).

Set-up of chapter 7: Practice guidelines and quality management: an analysis of the nature and development of 33 practice guidelines developed through consensus conferences between 1982 and 1992

This chapter draws on the experience of the author with the guideline development programme of the medical scientific council of CBO and the use of these practice guidelines for peer review in Dutch hospitals. Guidelines were chosen as a topic for analysis because they represent a large body of empirical material representing a specific type of quality management of medical specialist care, developed through a standardised method (i.e. consensus development). The following specific analyses were performed:

- analysis of the methods for criteria setting and consensus development as promoted by CBO;
- analysis of the managerial profiles of 33 consensus guidelines;
- analysis of the use of national practice guidelines for the formulation of review criteria for local peer review.

Some parts of this chapter have been published previously.[6]

Set-up of chapter 8: Integration of quality management of medical specialist care in the quality system of the hospital

This chapter is based on experience with the integration of quality management of medical specialist care in the broader context of the development of quality systems in the hospital organisation. First experiences with this approach were gained with the hospital audit project but over the years several projects have been executed by the author in different hospitals on request of medical staff as well as hospital management to facilitate integration of the professional and organisational approach. For writing this chapter the relation between the specialist and the hospital organisation has been analysed in more depth using different theoretical models as well as policy papers and publication on this theme that appeared during the past ten years. Participation of the author in the steering committee of the research projects on the developments of quality systems in Dutch health-care institutions (NIVEL 1992, 93 AND 95) was helpful for the development of insights expressed in this chapter.[7]

[6] KLAZINGA, CASPARIE AND VAN EVERDINGEN (1987), REERINK AND KLAZINGA (1991), KAASENBROOD AND KLAZINGA (1994), KLAZINGA (1994B), KLAZINGA (1995B).
[7] KLAZINGA AND DONKER (1995), KLAZINGA AND SCHEPERS (1996), SCHEPERS, KLAZINGA AND SCHOLTEN (1996).

2.9 ISSUES OF VALIDITY AND GENERALIZABILITY

Validity and generalizability play a role in all types of scientific research. As this study refers at different places to different types of research, a further explanation of these terms and there meaning in different methodological contexts seems relevant.

In most research the common approach to validity relates to measurement: a valid measure is one which 'measures what it purports to measure' (KAPLAN, 1964). A second traditional approach to validity relates to experimentation (CAMPBELL AND STANLEY, 1966). The questions here are about internal validity ('did in fact the experimental treatments make a difference in this specific experimental instance?') and about external validity ('to what populations, settings, treatment variables and measurement variables can this effect be generalized?'). The term 'validity' refers here to the study design and conclusions whilst the term 'generalizability' is often introduced as synonymous with external validity. In their discussion on experimental and quasi-experimental designs, Campbell and Stanley identify eight threats to internal validity, a further four to external validity, and then demonstrate a whole range of research designs which may meet these threats.

As this study is not of an experimental nature these approaches to validity do not directly apply here. However, this does not imply that validity is not an issue when performing a study based on a more eclectic-pluralist approach.

Another way of looking at validity in a study/measurement is to think about the different sorts of validity in which we may be interested (REASON, 1981). Apart from internal and external validity there are:

- face validity – whether it 'looks right' to the reasonable discriminating observer;
- convergent validity – whether a number of measures which purport to measure the same thing all point in the same direction (in contrast to discriminant validity);
- construct validity, which involves defining and measuring an unobservable abstract or theoretical notion through its associated observables, and whether these observables can be constructed in terms of more than one construct.

For a theory the predictive validity is an important aspect: whether it is able to predict future events in a correct way.

Finally, as we move away from experimental studies towards field studies, there are notions of contextual validity, which is about how any particular piece of data fits in with the whole picture.

Although the terms 'internal validity' and 'external validity' will be used several times, especially in chapter 7 where the process of guideline and criteria development in medicine is discussed, from the point of view of the overall methodology of the study both construct and contextual validity seem to be of importance. The central phenomenon of this study 'quality management of medical specialist care' needs to be constructed through a variety of concrete manifestations and its development is studied in a specific (and changing) context. The way the concept 'quality management of medical

specialist care' is constructed is already partly explained in chapter 1 but the operationalisation of the theoretical notion through associated observables (i.e. concrete activities related to medical practice) will be given in chapter 5. The context validity finds its essence in chapter 3 and 4, where the historical, sociological and organisational context of medical specialist care in Dutch hospitals is discussed.

The context description on the one hand limits the level of generalizability in the traditional sense, on the other hand it provides the reader with contextual information that may help to get a better understanding of the generalizability of the mechanisms described to other health systems. The empirical material in this study is based on activities in Dutch hospitals, covering the last ten years, and in some of the covered areas of specialist care the material is representative, in others it is merely illustrative.

As one of the studies underlying this book is a European study of the implementation of quality assurance in hospitals, in several chapters the findings in the participating 15 Dutch hospitals will be put in a broader perspective by comparing them with the findings in other hospitals (in total 267 hospitals in 15 countries participated in the COMAC study, KLAZINGA 1994). This is merely done to put the material in a broader perspective and enhance the convergent validity and does not have the pretense of generalizability of the findings in Dutch hospitals to the rest of Europe. The COMAC study itself has been set up as a before-after design in a given cohort of hospitals that were not randomly selected but self-assigned on the basis of enthusiasm to participate in a research project on quality assurance.

Hermeneutics show that method in itself does not lead to knowledge (KOCKELMANS, 1975, GADAMER 1975), and it is clear that inquiry is a particularly human process. As C.R. Rogers points out:

> *"Scientific methodology needs to be seen for what it truly is, a way of preventing me from deceiving myself in regard to my creatively formed subjective hunches which have developed out of the relationship between me and my material."*
> (ROGERS, 1961)

According to Reason and Rowan (1981:242) validity in this type of research lies also in the skills and sensitivities of the researcher, in how he uses himself as a knower, as an inquirer. Validity is in this sense more personal and interpersonal, rather than methodological.

This study about quality management of medical specialist care is written on the basis of more than 10 years work in the field of quality management in hospitals. It seems what Reason and Rowan call 'an encounter with experiential knowledge'. For this type of research Reason postulates eight notions about the prerequisites for validity:

- Valid research rests above all on high-quality awareness on the part of the researcher.

- Such high-quality awareness can only be maintained if the researcher engages in some systematic method of personal and interpersonal development.
- Valid research cannot be conducted alone.
- The validity of research is much enhanced by the systematic use of feedback loops, and by going round the research cycle several times. This notion bears similarities with the 'grounded theory' approach in qualitative research as promoted by Glaser and Strauss (1967).
- Valid research involves a subtle interplay between different forms of knowing.
- Contradiction can be used systematically.
- Convergent and contextual validity can be used to enhance the validity of any particular piece of data.
- The research can be replicated in some form.

All through the research process that culminated in this book, these notions on prerequisites for validity have been taken into account as much as possible. The 'biased-viewpoint effect' and the 'absence of control effect' that Riley (1963) describes for the performance of case studies through participative observation were avoided through continuous verification and discussions on the object of study with insiders as well as outsiders. Although over the years the theoretical scope of the study has been broadened as a result of growing awareness of the importance of contextual factors (i.e. the adding of professionalisation theory), the processes of induction and deduction have been controlled and documented as much as possible and the discussions with colleagues, peers, mentors and 'friends willing to act as enemies' have helped to illuminate the researchers conscious lopsidedness (after TORBERT, 1972).

Or, to paraphrase, with due respect, Donabedian in his paper on the effectiveness of quality assurance:

> *"These are the reflections of one who, it is hoped, is a reasonably well informed student of the field. It is largely speculative in method, relying mainly on plausibility and coherence rather than controlled experimentation, to gain acceptance. But perhaps this study can make a contribution to the iterative interplay of theory and empirical observation by which knowledge makes its often painfully slow advance."*
>
> (DONABEDIAN, 1991:70).

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Chapter 3
The development of quality management of medical specialist care in Dutch hospitals

A historical analysis focusing on professionalisation and organisational development in their social and economic context

> *"It may be that greater attention will be paid in the future to aspects of professionalisation that cannot be explained easily by reference to material self-interest. Who knows? Whig history may yet return!"*
>
> E. Freidson (1994, p. 7)

3.1 INTRODUCTION

For a better understanding of the present activities in the field of quality management it is necessary to describe the history of medical specialist care in hospitals in The Netherlands and explain the social and economic context in which it developed. The development of medical specialisation will be described from the perspective of professionalisation theory, and the hospital as an institutional setting where medical specialist care is provided, will be described from the perspective of organisational development theory. Both processes, professionalisation and organisational development, are put in their social and economic context. This contextual approach aims to help the reader to understand the different forces and mechanisms that shaped the present attitude and activities with respect to quality management of specialist care.

After a brief introduction to the history of medicine in The Netherlands (3.2), the development of specialist care, with its scientific origins in the nineteenth century but strong expansion in the twentieth century, will be described from three different perspectives:

- the development of the medical profession and more specific medical specialties (professionalisation);
- the development of hospitals (organisational development)
- the different attempts of governments to influence specialist care by either regulating the price, the volume and/or the quality as well as the access to care (economic and social context).

Scientific and technical developments and public opinion on health and health care are considered as an integral (and often crucial) part of the professionalisation and organisational development processes.

Six different periods in the development of specialist care in hospitals will be discerned, each period with its own dynamics as a result of the interaction of professionalisation and organisational development processes with economic and social forces. The first two periods cover a rather long era, 1848-1900 and 1900-1945 and are labelled as 'The dawn of medical specialist care' (3.3) and 'Towards medical specialist care in hospitals' (3.4). Although from a historical point of view a more differentiated division is possible, two periods are identified here to illustrate the beginning of the development of medical specialist care and its relevance for activities that we call today 'quality management'. For the other periods, given their direct relation with quality-management activities that will be described in chapter 4 and 5, a shorter time horizon has been chosen. The periods mark different prevailing health policy approaches taken by government to influence the development of medical specialist care. The third and the fourth cover the periods 1945-1960 and 1960-1974 respectively, and are characterised as the 'guided awakening' and the 'blossoming of medical specialist care' in a hospital setting (3.5, 3.6). The fifth period covers 1974-1987, a period during which different attempts are made to regulate specialist care in hospitals ('The framing of specialist care') (3.7). The last period covers 1987-1996 when specialist care in hospitals is perceived as a service industry within economic constraints ('The taming and blaming of medical specialist care?') (3.8). The chapter ends with some reflections on the changes in the professional autonomy of medical specialists and on the nature and scope of existing and emerging systems for quality management of specialist care (3.9).

3.2 THE HISTORY OF MEDICINE IN THE NETHERLANDS: A SYNOPSIS FROM A SOCIOHISTORICAL POINT OF VIEW

The history of medicine in The Netherlands is similar to the history of medicine in most West European countries. History of medicine is often described along the lines of the development of clinical science, showing how observation, experimentation and technology feed basic medical sciences such as anatomy, physiology, microbiology and pathology, that become embedded in both academia and the hospital, resulting in a continuous series of discoveries and 'medical heroes' (BRIEGER 1993, BOOTH 1993). Apart from these traditional positivistic historical descriptions a growing number of social historical studies have been published during the past decades that focus on the interaction between medicine and society. Many sociohistorical descriptions of the relation between medicine and society tend to focus on the effects of epidemics when they describe the seventeenth and the eighteenth century: on prevention of illnesses and the impact of preventive measures on society when describing the nineteenth century and on the development of medicine as a profession when describing the twentieth century (MOL, VAN LIESHOUT 1989).

In descriptions of the development of the medical profession, the balance of power between the state and the profession is usually a central theme. Following Foucault's concept of governmentality (FOUCAULT 1979), the rise of the medical profession and its forms of institutionalised expertise should not be considered as an autonomous process, separated from state and society, but rather as a part of the process of state formation. In a certain sense, overseeing established definitions of illness, the profession is the state: the privileged place of medical definers in the social order is that they are part of an official realm of discourse (JOHNSON 1995).

The effect of 'doctors' on the health of the population before the beginning of the nineteenth century in The Netherlands, as elsewhere in Europe, is usually considered marginal. Physicians who had studied at universities (and had been more oriented towards theory than towards practice), surgeons who performed surgery and herbal healers all have had a cultural impact, but their therapeutic contribution towards heath is considered as minor. At the same time the relation between the governing national and local authorities and the professionals was rather loose and neither the *doctores medicinae* nor the surgeons can be considered as 'state agents'. However, both the industrial and the French revolution have brought about changes in the Dutch society that still shape the roles of the state and the medical profession.

3.2.1 *Medicine in The Netherlands in the nineteenth century: from organised public health care towards organised personal health care*

Historians commenting on the nineteenth century tend to focus on the role doctors in The Netherlands were playing in relation to the introduction of preventive measures and the effects this had on society (MOL, VAN LIESHOUT 1989). The links between medicine, society, and state governance become visible. Urbanised areas are considered a source of infection, and thus cities become the focus of the so-called 'sanitarians': a group of doctors that try to persuade national and local government to take preventive actions to improve the health of the population (HOUWAART, 1991). Doctors become involved in discussions on the way society should be regulated. At a certain point there is even a conflict between doctors and engineers about which profession is responsible for the design of cities (VERDOORN, 1965). Doctors influence the schooling system, but influence on the factories as a potential source of illness (the work of Coronel) was hardly permitted during the industrialisation period (MOL, VAN LIESHOUT 1989).

Gradually the focus of prevention shifts towards the end of the nineteenth century from the public domain to the private domain (VAN DER KORST 1988). Although new technology and emerging scientific knowledge pave the way to improved methods for diagnosis and treatment, the impact of individual clinical care is still considered of little influence on 'health benefit' (MCKEOWN 1979). Mackenbach (1992) concludes that major shifts in mortality between ca. 1800 and ca. 1875 are partly influenced by the growth in welfare (and the extinction of food shortages) but to a larger extent by collective prevention (cholera) and health care (smallpox) (MACKENBACH, 1992:37). The sanitarian movement in the nineteenth century illustrates also that health measures, even when they are effective, should not be assessed merely by mortality data. They also have an impact on the way society is regulated and on the behaviour of individuals. Health measures proclaimed by medicine should be interpreted as part of the complex social and cultural environment of which they are part.

The notion that the history of medicine cannot be described by looking at medical effectiveness in terms of its impact on mortality data alone is congruent with the multi-dimensional definition of quality of care provided in chapter 1. This similarity underlines the choice made in this chapter to take the sociohistorical approach in describing the history of medical specialist care in The Netherlands. A traditional historical description, focusing on the scientific development and the individuals personifying medical progress would be too limited a scope to understand the real nature of the development of quality management of medical specialist care.

3.2.2 *Medicine in The Netherlands in the twentieth century: personal care delivered by specialists in the hospital and by general practitioners in the home situation*

In the twentieth century the weight of preventive medicine diminishes relative to the rapid expansion of clinical medicine. Clinical medicine is not aimed at populations and public life but focuses on the individual patient. In the first half of the century this expansion of personalised medicine was carried for a large extent by the family doctors but after World War II, specialists and hospitals became increasingly important (MOL, VAN LIESHOUT, 1989). The status of the specialist increases when therapies become more effective and hospital stay more commonplace, at the same time the status of the family doctor seems to devalue. Both the general public and the profession tend to perceive the family doctor as less in tune modern technological medicine. In the fifties specialist care in The Netherlands becomes more and more integrated in the hospital organisation. Partly as a reaction, further professionalisation of the family doctor takes place during the sixties and seventies. This shows in specific research in primary health care, specific training programmes, a (politically endorsed) status as gatekeeper of the health-care system, and quality-management initiatives for General Practitioners (VAN HERK ET AL., 1994).

Since the eighties the balance in public esteem between specialists and General Practitioners (GPs) in The Netherlands seems to shift again now that the benefit of clinical medicine, driven by new specialised knowledge and technology, is questioned and the family doctor, putting more emphasis on the role of communication in health care, provides a better fit with the democratised post-modern society than the specialist.

3.2.3 *Specific characteristics of professionalisation of the medical profession in The Netherlands*

The history of the expansion of personalised medicine is usually described by looking at the development of the medical profession as a group that, armed with new (scientific) knowledge that can be applied in practice, tries to achieve an independent position, both professionally and economically. This explains the large amount of sociological literature perceiving the development of medicine as a process of professionalisation (I.E. FREIDSON 1973, HAUG 1973, JOHNSON 1972 ABBOTT 1988). In *The Social Transformation of American Medicine* Starr (1982) gives a detailed account of the development of the medical profession in the USA from a weak unorganised group in the nineteenth century into a monopolistic, well-organised profession since the 1920s. By resisting pressure from government and 'third parties' like industry and insurance companies, physicians managed to achieve not only professional autonomy in the clinical field but also relative economic independence. When in the sixties the American govern-

ment tried to regulate the expansion of health care, resistance from the medical side arose. This had, however, the paradoxical effect that commercial industry became interested in health care and started to consider the 'medical industrial complex' as an interesting field for investments. Starr (as quoted in Mol and Van Lieshout) concludes that:

> "[...] *the resistance of physicians and hospitals against public control on public services has resulted in commercial forces that will in the future threaten the independence of private doctors and hospitals. In the long run the development of a commercialized medical-industrial complex will be a bigger threat towards the autonomy of the medical profession than all attempts of government to regulate health care.*"
> (STARR, 1982:445)

This conclusion gives rise to reflections on the developments in The Netherlands where the debate on regulating health care since the mid-eighties is also shifting from a profession-government debate towards a profession-financier debate, and increased competition in health care is foreseen in several policy plans (DEKKER 1987, SIMONS 1990). This shift in the debate on regulating mechanisms is transforming professional autonomy. In the changing context of the Dutch health-care system adaptations can be observed in clinical autonomy (medical decision making), economic autonomy (influence on income) and political autonomy (influence on regulations related to the profession and health policy in general). These changes can, however, better be characterised as transformations to a changing context than described in terms of increase or decline of professional autonomy (SCHEPERS, KLAZINGA 1993).

The work of Starr and other social historians of medicine illustrates that the development of medicine cannot be understood without looking at the way the medical profession has developed itself and how it has handled health care as an economic good and as a social commodity. Policies and activities of the medical profession on the quality of medical care should therefore also be considered in their economic and social context. The professional should be seen not only as a medical expert but as an entrepreneur with his/her own economic interests and as a citizen with social responsibilities.

According to Mol and Van Lieshout, studies that describe the history of medicine in The Netherlands bear similarities with the work of Starr[8] Although they conclude that in many Dutch studies more emphasis is put on scientific development as an incentive for further professionalism, the drive for autonomy is considered a central theme. The main difference between Dutch studies and the one by Starr seems to be the attention paid to the other actors in the health-care field such as government, sick funds, labour

[8] *These refer to the work of Querido, 1965 and 1967; Festen, 1974 and 1985; Juffermans, 1982; Goudsmit, 1978; De Wolff, 1984; Jaspers, 1985; Haneveld, 1986; Van der Grinten, 1987 and Grünwald, 1987.*

organisations, employers' organisations, patient organisations and the different political and religious organisations that shaped Dutch society. Another difference seems to be the parallel professionalisation of specialists confined to the hospital setting and general practitioners playing a predominant role in primary health care (MOL AND VAN LIESHOUT 1989).

In general, the health-care debate in The Netherlands throughout the past century seems to have been grounded more on solidarity in society than the corresponding debate in the USA. Health care is to a large extent considered a social right that should be guaranteed through collective risk sharing. On the other hand a national history of corporatisation and liberalisation has always restrained health policies based on strong government interference. Perhaps these national health policy characteristics explain part of the nature of the 'quality debate' in health care – as this will be unfolded in this chapter and chapters 4 and 5.

3.3 1848-1900: THE DAWN OF MEDICAL SPECIALIST CARE IN THE NETHERLANDS

3.3.1 The founding of the Dutch Medical Association (NMG)

The year 1848 was a year of turmoil all over Europe. Revolutionary activities in France brings about a spirit of change and revolt against the establishment. For the medical community in The Netherlands it is a year of unrest about the general health situation (sanitarians), the lack of uniform training programmes and the wish to link the study of medicine to the emerging natural sciences (Amsterdam lecture prof. Van Geuns 1847). But especially the threat towards the independent position of 'physicians' working in the rural areas, since 1842 a government committee was working on the revision of the laws on health care of 1818, has cumulated in an initiative of 14 local medical associations to found The Netherlands Medical Association (NMG) (Amsterdam, 23 August, 1848) (VAN DER KORST 1988). The association becomes official in March, 1849, but the first meeting of the general assembly has to be postponed till 22 and 23 October in Arnhem because of a cholera epidemic.

The objectives of the association are to revise the legislation on health care and health-care professionals thus improving the health of the population as well as the general status of the medical profession (VAN DER KORST, 1988). At the time of the foundation of the NMG the medical profession is quite diverse and does not constitute one occupational group. Apart from the *doctores medicinae* with their academic training in medicine and/or surgery and obstetrics, there is a variety of healers working in rural areas and aboard ships with varied types of formal authorisation. In accordance with a law from 1818 provincial committees have the responsibility to assess the competence

of practitioners and provide licences to practice and inspect the quality of care delivery. General opinion around 1840 is that the control function of the provincial committees is insufficient to prevent quackery (CANNEGIETER, 1954:49). The founding of a national medical association, promoting not only scientific development but also the economic and political interests of a more unified profession, can in the same period also be observed in other West and North European countries and the USA (Denmark 1857, Den Almindelige Danske Lægeforening; Great Britain 1832, British Medical Association; Norway 1886, Den Norske Lægeforening; USA, 1886, American Association of Physicians). In Belgium, although channelled through different types of organisations (with a strong distinction between the medical elite and the common medical practitioner) a similar process of professional unification and increased professional autonomy takes place (SCHEPERS, 1994). The Netherlands Medical Association grows steadily and organises itself in districts all over the country. Around 1900 almost all physicians are members.

From the start the NMG tries actively to influence governmental policy-making related to the medical profession. Different attempts of government through a series of state committees (the first one in 1841) to produce new legislation on health care and the health-care professions, are the subject of intensive discussions. Formal steps are taken in 1865 under minister of internal affairs Thorbecke. In that year several laws are accepted in Parliament that regulate the organisation of medical education and the rights for physicians to practise (*Wet op de Uitoefening der Geneeskunst, Wet op de Verkrijging der Bevoegdheid*) and control on medical practice (*Wet op het Geneeskundig Staatstoezicht*). Although the NMG has great difficulty with the government attempts to control the medical profession, the government ideas about medical training meet approval.

3.3.2 Compulsory academic training to practice medicine

Academic training becomes compulsory to practise medicine. This academic training is examined through two state examinations, one on theory and one on practice. These examinations are the responsibility of a committee, set up independently from the medical faculties (it will last until 1921 before state examinations are abolished and medical examination becomes the sole responsibility of the medical faculties). The new situation favours the academically trained *doctores medicinae* and has a large impact on the other healing disciplines. Although some *doctores medicinae* also perform surgery and obstetrics, academic theory and empirical practice had mainly been separated and considered as of different status. Now the knowledge of the *doctores medicinae* and the skills of surgical healers and other medical professionals is merged in a joint curriculum with a sound scientific basis. The state commissions responsible for taking the state examinations play an important role in the process of

the introduction of scientific medicine into the universities as well as the introduction of the sciences in secondary schools, preparing scholars for academic training (VAN LIEBURG, 1995). In 1879 a new law for higher education provides the basis for the integration of the non-academic teaching of medicine within the universities. Non-academic students can pass state medical examinations in order to become a physician. The professional status of physicians increases. Training requirements are refined and (the four) universities start to include more practical education in their programmes.

The control on medical practice takes shape by means of an Inspectorate of Health although this Inspectorate has very limited instruments for actually influencing health care and a lot of room is left for self-regulation of the medical profession. In pace with the academisation of medicine scientific associations are set up around 1900 to represent the academic and occupational interests of the new groups that evolve as a consequence of the further differentiation of the medical profession. Examples are the Society for Psychiatry and Neurology (1873), the Society for Surgery (1902) (see also 4.2).

3.3.3 The development of the hospital organisation in the 19th century

In the course of the twentieth century hospitals undergo major changes that are characterised by Turner (1987) as the third phase in their development after being based on religious and charity foundations. In the nineteenth century, hospitals are considered a place for the poor and travellers where they can get care, usually provided by the church or the municipality, that they cannot afford at home. The name *Gasthuis* ('guesthouse', the Dutch translation of the neo-Latin *hospitale*), which is still prevalent in the names of several Dutch Hospitals, expresses this function of the hospital in the nineteenth century (QUERIDO, 1967). At the same time the use of the word *Godshuis* ('the house of God') illustrates the religious foundation of many Dutch hospitals. During the nineteenth century and especially after 1865 hospitals are more often used as training sites for medical students. Firstly the special hospitals are recognised as a place where a physician can build a career, but later on general hospitals are also recognised as a proper workplace for scientific medicine. To quote Granshaw:

> *"It was in the assistance that the hospitals provided to the upwardly mobile doctor that the key to their foundation can be found."*
> (GRANSHAW, 1989:200)

In comparison with France, the UK and Belgium the involvement of physicians in *Gasthuizen* en *Godshuizen* in The Netherlands seems to have been a bit slow. The Belgian physician Van Meerbeeck comments in 1842 on the situation in Dutch 'hospitals' as follows:

> *"Il n'est pas douteux, non plus, que si les médecins avaient un peu plus d'influence dans l'administration des hôpitaux, tout les hôpitaux de la Hollande ne fussent bientôt pourvus d'élèves internes. Leur absence, tout dans les hôpitaux de clinique que dans les autres hôpitaux civils de ce pays, m'a singulièrement frappé;* [...] *comment, sans eux, il est possible de faire convenablement le service de ces établissements."*
> (VAN LIEBURG, 1986:11)

Gradually, however, more doctors become involved in hospital activities, at first mainly employed part-time (family doctors who combine their practice with work in the hospitals). But eventually, with the expansion of the number of specialists and policlinics, specialists become full-time involved in hospital care and combine policlinical and clinical work using hospital beds for patients who can be treated neither in an ambulatory setting nor at home. When policlinics are located within the hospital building specialist care and the hospital organisation integrate even further. Two other developments in the nineteenth century that gave hospitals a push forward are the Law on the care for the poor in 1854 (*Armenwet*, enforcing the caretaking function of the hospital) and the Law on contagious diseases in 1872 (Legal embedding of the cure function for infectious diseases and increased involvement of the inspectorate of health) (VAN LIEBURG, 1986).

3.4 1900-1945: TOWARDS MEDICAL SPECIALIST CARE IN HOSPITALS

3.4.1 The rise and decline of specialist practice performed in policlinics

In 1883 the Dutch Medical Association (NMG) welcomes its first specialist members. These are mainly professors and their assistants. Other specialists working in hospitals do not exist at that time. Around 1900 a growing number of family doctors starts working part-time as a specialist. This results in *half-specialisten*, physicians who still work as a family doctor but spent part of their time with diagnosis and treatment of diseases related to the skin, eyes, children, nervous system, ears or throat. These initial forms of specialist practice are organised in so-called 'policlinics' (city clinics for poor ambulatory patients; PINKHOF MEDICAL DICTIONARY 1936).

In 1903 the Dutch Medical Association introduces a system for jurisdiction for its members, including rules on interprofessional behaviour on transferring patients and starting a new practice. This form of self-regulation of the profession can be considered as a quality control system *avant la lettre* with an internal function (assuring a certain level of care delivery) as well as an external function (assuring a certain economic autonomy). This second function is illustrated by the *polikliniekkwestie*, the debates in

the NMG about the rapid growth of the number of policlinics, resulting in a special study committee in 1906. Although the rise of specialisation and policlinics is heavily debated, the NMG is not able to enforce any form of self-regulation and more or less accepts the situation as it develops. In several cities (starting in 1905 in Amsterdam), independent organisations of specialists are set up. In 1910 the limited number of medical specialists succeed in establishing their own organisation within the framework of the Medical Association. It will last, however, until 1931 before the *Specialisten Registratie Commissie* (a committee keeping a register of qualified specialists) is established and thus the post-graduate training for specialists is formalised. The self-regulation of specialists' job descriptions, recognition of the profession and patient transfer between family doctors and specialists is formalised only after a long period of internal debates within the profession. In the period between 1900 and 1930 the number of physicians calling themselves specialists grows from 100 to 1000.

In 1928 the Dutch Parliament accepts the *Medische Tuchtwet* (Disciplinary Law for the Medical Profession), a law that initiates a still existing practice of jurisdiction that functions between the handling of patient complaints on the one hand and criminal lawsuits on the other. The law leaves sufficient room for self-regulation of the medical profession and formalises strong input of professionals in the law-seeking process (see also 4.3).

It can be concluded that around 1930 specialisation in medicine is there to stay. Neither the medical profession (NMG), nor the state have seriously tried to stop the specialisation process. The powerful combination of new theory (scientific development) and new practice (initially in policlinics) resulted in a series of specialties that become integrated in the existing formal structures of the medical profession (NMG, specialty registers) and the state (laws on medical professions).

3.4.2 The financing of health care

Since the second half of the nineteenth century the medical profession gets a growing grip on the financing of health care by creating *doktersfondsen* ('physicians' funds'). These can be seen as insurance initiatives taken by the physicians themselves: people who pay a contribution will get treatment when they need it. This initiative partly blocks the way of the development of for-profit insurance companies and not-for-profit sick funds as set up by groups of employees. Attempts of government to regulate health insurance are resisted. Since 1913 government regulates payment of employees during periods of sick leave with the *Ziektewet*, but no further initiatives for health insurance are taken at that time. In 1913 the Medical Association takes the initiative to bundle the different *doktersfondsen* and create *maatschappijfondsen* ('association funds').

It will last until World War II when the German occupiers, used to the Bismarckian model of *Krankenkassen*, change the previous privatised and largely voluntary system of health-care financing and introduce a legal basis for sick funds in 1941. The proportion of insured persons rises from 40% of the population in 1940 towards 70% in 1950. The system of sick funds is at present still intact although in the nineties discussions take place to transform it into a basic insurance system for the whole population with a limited coverage. Although the social care system (apart from health care including provisions for unemployment, poverty, old age pensions etc.) is developed rather late compared to other European countries, the scope and volume of provisions of nationally regulated social care is substantial. Taxes are as a result rather high compared with other West European countries. Consequently in The Netherlands debates on access to care have always been strongly linked to politics on income solidarity (VAN DER VELDEN, 1993).

3.4.3 *The development of the hospital organisation between 1900 and 1945*

The development of hospital care is around 1900 characterised by the fact that a growing number of doctors become involved in hospital management thus replacing the members of the clergy and governors appointed by the municipality college (*regenten*). In 1900 physicians who combine the task of clinical work with hospital management (*geneesheer-directeur*) organise themselves in the *Geneeskundige Vereeniging ter Bevordering van het Ziekenhuiswezen* (GVBZ). This association, set up within the frame of the NMG, acts as a professional organisation and guards the interests of the larger hospitals (small hospitals usually cannot afford to have a physician-director) (WOLF, 1992).

Jaspers (1985) gives the following characteristics of a Dutch hospital around 1900: decent nursing, sober amenities and food, patients from lower classes, a simple structure of cure and care, assistance from several doctors and trained nurses, and management by a doctor, but in a lot of cases by other functionaries as well.

The quality of hospital care is influenced by the inventions in medical science that have a major impact on the way medicine is practised: asepsis (Semmelweis, 1846), ether (Morton, 1846), chloroform (Simpson, 1847), antisepsis (Lister, 1865). Especially antisepsis results in many practical changes and additional investments in hospitals. Another contribution to the major changes of hospitals come with the introduction of trained nurses. Around 1900 there are 800 nurses with a diploma and the training possibilities will expand rapidly when hospital training for nurses is developed, resulting in more than 6000 nurses shortly after World War II (JASPERS, 1985:86).

The effect is that hospitals are no longer associated with care for the poor but become institutions where 'scientific treatments' can be obtained that cannot be provided in the

home situation. Thus, since the beginning of the 20th century, the modern hospital, as a complex service organisation providing specialised medical care, takes shape. According to Turner (1987) the development of the modern hospital as a centre for training doctors and promoting research owes a great deal to the transformation of the hospital system by the French revolution. He bases this conclusion on Foucault (1973). Foucault recognised the existence of 'proto-clinics' from the seventeenth century (such as the clinic established by Boerhaave in Leyden in 1685), but he argued that it was the reform undertaken by the *Comité de Médicité* in France which paved the way for a new empiricism in medical training. When post-Descartian medicine, and medical specialists who are the products of the professionalisation process that went with it, took the hospital as their working place where patients can be studied and cured (and started calling it a clinic), the seeds for the development towards the modern hospital as a professional bureaucracy are planted. In summary three groups of factors seem to have influenced this development of the hospital organisation:

- The successful professionalisation of the medical and nursing profession.
- Improvements in hospital hygiene and sanitation together with a series of inventions (like anaesthesia).
- The willingness of the middle class to enter the hospital in search of cures (LEWIS 1952, LARSON 1977).

The historical development of hospitals in the USA is described along similar lines by Rosenberg (1987) who also puts emphasis on the links with the social history of American society.

In The Netherlands the gradual integration of ambulatory specialist care provided in policlinics in the overall function of the hospital and the rather sharp distinction between specialists and general practitioners have shaped the present profile of Dutch hospitals. Jaspers (1985) concludes that these developments have resulted in both an absolute growth of hospital capacity and an increase of its use.

Before World War II the Dutch government has hardly tried to influence this rapid expansion. The only serious attempt to regulate hospital capacity (and introduce a licensing system) was undertaken in 1935 by the Frederiks committee, but failed. Wolf (1992) concludes that the opposition of the owners of the hospitals (private ownership of 80% of the beds), against government interference, blocked planning initiatives. Collectively the organisations of physician-directors (GVBZ), and the hospital board members (*Vereniging van Ziekenhuizen in Nederland,* municipality hospitals), *Bond der Nederlandse Diaconessenhuizen* (Protestant) and the *Vereniging van Katholieke Ziekenhuizen* (Roman Catholic)) were in favour of self-regulation to guard their own interests.

The relations between the GVBZ and the hospital organisations are in the thirties rather troublesome. The question arises who is in charge of the hospital: the traditional hospital board or the physician-director who presents himself as an expert on hospital care and proposes many innovations (WOLF, 1992:197, D'HAENE AND SCHALEMA 1987). It seems

remarkable that, contrary to the development of hospital administration as a separate profession at the beginning of the twentieth century in the USA (VOGEL, 1989), the development of early hospital administration in The Netherlands is so strongly linked to the medical profession. This has certainly shaped the profession management debate in Dutch hospitals as will be discussed in more detail in chapter 5.

3.5 1945-1960: GUIDED AWAKENING OF MEDICAL SPECIALIST CARE IN A HOSPITAL SETTING

The expansion of specialist care and hospitals continues after World War II. Attempts of the government to get more grip on the structuring of the post-war health-care system are not successful in contrast to the UK where Labour Secretary Bevan introduces the National Health System in 1948. The actors in the health-care field (especially the powerful Roman Catholic organisations) continue to regulate the health-care services without major government interference. However, they cannot prevent the government from developing specific policies towards health economics. These policies are the initiative of the Ministry of Economic Affairs. As part of the post-war reconstruction of The Netherlands, emphasis is given to industrial growth and therefore expenditure on health care must be controlled. The Ministry takes a centralised and global approach, which is not grounded on laws developed specific to health care, and starts to control the income of physicians and the premiums from sick funds. Furthermore, the prices for hospital care are maximised and the building of new hospitals is regulated. For each construction initiative permission from central government is required. With this strict regime the Ministry of Economic Affairs, supported by Parliament, tries to regulate the growth of health care (JASPERS 1985, GRÜNWALD 1987, SCHUT 1995).

This regulation of building initiatives, volume and prices is only partly successful as the autonomous growth process of health services continues. Between 1945 and 1960 the number of hospital beds rises from 36.000 to 58.000, although hardly any new building initiative is taken. The results are crowded and old-fashioned hospital wards: in 1960 half of the Dutch hospital buildings is built in the 19th century. The global economic regulation of the Ministry has resulted in some quantitative limitations but has above all resulted in a qualitative decrease of health care (MOL AND VAN LIESHOUT, 1989).

3.5.1 'Closed hospitals', 'partnerships' and medical staff development

At the end of the fifties more changes in hospitals in the direction of the institutes as we know them today are noticeable. Increasingly specialists stop having a practice at home and start an office in the hospital where they can be consulted by patients

(VISSERS, 1980). Medical specialist care in the hospital is limited to those specialists who have a contract with the institution. The contract allows them to perform specialist care, using the beds and other facilities of the hospital. This construction, of a combination of policlinic consulting hours and clinical care on the wards by the same doctors and a limited group of peers, will characterise the further development of medical specialist care in Dutch hospitals. When specialists choose the hospital as their working place, a discussion starts about their exact role and responsibilities within the hospital organisation. After World War II this debate focuses on the issue whether the hospital structure towards specialists should be 'open' or 'closed'. Two reports on this issue, addressed to the board of the Royal Dutch Medical Association, appear in 1949 and 1954 and a third one, addressed to the minister of Social Affairs and Health Care in 1957. All three reports express the wish to organise all specialists working in a hospital in a formal medical staff. The draft versions of bylaws, attached to the first two reports, formulate the aim:

> *"Through co-operation realise the best medical care, the best scientific results and the most efficient modes of work attainable given the local conditions."*

Until 1958 the discussion about open and closed hospitals is dominated by arguments related to the freedom of choice of patients, autonomy of specialists and responsibilities of hospital management. In a lecture to the Association of Hospital Directors, J.H. Pannekoek introduces the quality argument in the discussion when he states that:

> *"A structured well-functioning medical staff is necessary to assure the level of the care given in the hospital by continuous evaluation and improvement."*
> (J.H. PANNEKOEK, 1958)

Pannekoek, a specialist in internal medicine who at that moment was hospital director in Deventer, believed that the director and board of a hospital could only carry the external responsibility for the quality of care given in their institution when the medical staff, as a collective body, takes the responsibility to assure the quality. A few days later this opinion is quoted in the speech of the chairman of the Dutch Specialist Association to the annual assembly (VAN NIEUWENHUIZEN 1958) thus strengthening the idea that specialists should take their responsibility with respect to quality management. It is noteworthy that the speech in which Van Nieuwenhuizen expresses this view was entitled 'About measures to protect a free profession'. The link with changes in professional autonomy as part of professionalisation seems evident. Already in 1958 Pannekoek bases part of his views on the audit system existing in the USA and introduces the English terminology.

Hence, after a discussion of several decades the final conclusion is drawn to have 'closed hospitals'; specialists have exclusive contracts with one hospital and provide

ambulatory care in policlinics located on the hospital grounds. This decision will have a major impact on the labour division between specialists (working exclusively in a hospital), and general practitioners. In contrast to the situation in for example Germany, The Netherlands houses few specialists with an (ambulatory) practice at home. Through the institutionalisation of a medical staff the specialist regulate their political autonomy, i.e. they influence the hospital strategies that have an impact on their work (ROOYAARDS 1961). At the same time more and more groups of specialists of the same specialty formalise their relation with the hospital through partnerships. In these partnerships the economic interests of a group of specialists is bundled. Thus economic autonomy of the specialist is to a large extent dependent on the functioning of the partnerships (see also chapter 5). Fee-for-service remains the main mechanism for specialist financing. In 1949 the specialists' association (LSV) and the association of sick funds agree upon uniformation through a national fee schedule. The hospital also charges a fee, based on the number of days a patient stays in the hospital. These fees are paid by either the sick funds or private health insurers.

Hospital culture in the fifties and sixties is still largely dominated by the different denominational groups in the Dutch society. Based on an analysis of annual reports De Gooyer (1988) characterises the image of the hospitals in this period as isolated from social realities, and not, as in industry, integrated in the surrounding social context. Hospitals are 'a world in themselves characterised by devoutness and austerity'. Hospital management is usually the responsibility of a physician-director, sometimes assisted by a deputy. Very few hospitals have at that time an economist as (deputy) director.

3.6 1960-1974: BLOSSOMING OF MEDICAL SPECIALIST CARE IN HOSPITALS

During the period 1960-1970 economic growth and further expansion of the possibilities of specialist care facilitate new government policies. After a period of economic control, liberalisation of health care is the central issue. The corporate approach, in which the different parties in the health-care field are responsible for planning and control, is again emphasised. Price liberalisation results in a health system in which providers and financiers (sick funds, private insurance companies) negotiate on (hospital) prices. Only when they cannot reach an agreement government will interfere. This price-setting mechanism is legalised by the *Wet Ziekenhuistarieven* (Act on hospital rates) and the introduction of the *Centraal Orgaan Ziekenhuistarieven*, a semi-governmental body, where representatives from providers and financiers negotiate the prices. The government control on incomes of specialists stops and the building of many new hospitals starts.

In 1967, complementary to the *Ziekenfondswet* (the law regulating the social health insurance) a new social insurance law on exceptional medical expenses is introduced: the *Algemene Wet Bijzondere Ziektekosten* (AWBZ). This law broadens the financial possibilities for certain forms of institutional care (e.g. chronic illnesses) and is the incentive for a rapid growth in the number of nursing homes.

3.6.1 The development of the hospital organisation towards a professional bureaucracy

Both the number and the type of specialists increase in this period. The traditional sister (belonging to a religious group) is replaced by a trained nurse who has regulated working hours. Because of the professionalisation of nursing, tasks like patient transport and delivering meals are organised in independent services. The hospital organisation changes from a 'simple structure' in terms of the categories defined by Mintzberg (1979) into a 'machine bureaucracy' in which (medical) management tries to control the care process, mainly focusing on the work of nurses and the emerging allied health professions (LETTINK, 1988).

With the continuous growth in specialised methods for diagnosis and treatment at the end of the sixties, laboratory, radiology and operating facilities become more and more important. This results in a large number of different organisational units that each have their own management and organise their work and organisational structure in accordance with their own ideas. Nursing also starts with specialisation and differentiation in directions such as policlinic/emergency room, operating room, intensive care and paediatrics/neonatal care. The result is a combination of many different units with their own organisational structure and culture and limited interaction with each other. Management concentrates in this period of growth on the acquiring of new specialties, building initiatives and appointing heads of the different units with sufficient management skills to handle the growing complexity of hospital care. Creating synergy between the different departments and services becomes one of the major management tasks. Hospital management orientates itself primarily towards the wishes of the specialist; the hospital structure, set up to fulfil the needs of the growing number of specialists organised in different departments, starts to resemble in some aspects the Mintzberg 'division structure' model. The consequence of these structural and technological changes has been that the hospital increasingly looks like a collection of workshops (STRAUSS 1985). This 'workshop character' is in Dutch hospitals perhaps even stronger than in many hospitals in the USA and the UK because of the partnership model. Although in the university hospitals and some larger teaching hospitals specialists are salaried, the majority of specialists is working in partnerships. These partnerships form independent economic units within the larger frame of the hospital organisation. For the financing of specialist care, fee for service payment remains the most frequent form

and in 1969 the LSV and the private insurers reach agreement on a national private fee schedule. These fees are substantially higher than the fees paid by the sick fund (SCHUT, 1995). With a strong position of the specialists in the hospital organisation through the medical staff and partnerships, the hospital turns more and more in a professional bureaucracy with a dual organisational model.

3.7 1974-1987: FRAMING OF MEDICAL SPECIALIST CARE IN HOSPITALS

The rapid expansion of health care, and especially hospital care, causes health care to consume an increasing part of the Gross National Product. When the economic circumstances change during the seventies, government ends its liberalisation policy towards health care and tries again to control the developments by structuring the health-care organisation. The *ontzuiling* of society during the sixties (the gradual disintegration of traditional religious and political groups that for a long time had formed the pillars of Dutch society) makes that the different actors in the health-care system, such as professionals, hospital management and sick funds, who can traditionally count on the support of different denominational pillars in Parliament, have to face a different situation. Hospitals, sick funds and doctors constitute national interest groups that professionalise the lobbying process. At the same time, government is not only interested in the accessibility of the health-care system for the citizens, but feels it as its responsibility to assure equity and the availability of facilities.

Different laws are discussed in Parliament. All are aimed at enlarging government influence on health-care planning and control. Behind these laws lies a philosophy of government regulation through (strategic) planning – a steering philosophy copied from industry and popular in government policies in all domains in the seventies and early eighties.

The *Wet Ziekenhuisvoorzieningen* (Hospital Facilities Act), promulgated in 1971, transfers the responsibility for hospital planning to the provinces and the final responsibility to central government. A permit is required for the building of hospitals and the acquisition of certain facilities. In the opinion of Boot and Knapen (1980) this has resulted in a rather lenient policy that never took the form of real planning.

3.7.1 The ideal of a planned health-care system

In 1974 the *Structuurnota Gezondheidszorg* is presented in Parliament. Central issues in this governmental policy plan are regionalisation of health care and the creation of echelons (the terms 'primary health care' and 'secondary health care' are introduced:

eerste-lijns gezondheidszorg and *tweede-lijns gezondheidszorg*). A norm of four beds per 1,000 inhabitants is introduced (the actual situation in 1972 showed 5.64 beds per 1000 inhabitants) and for 1980 expenditure on health care should not be more than 8% of the GNP. The policy plans foresee planning of facilities (the Hospital Facilities Act from 1972 should become part of a new Law on the planning of health-care facilities, i.e. the *Wet Voorzieningen Gezondheidszorg* (WVG) to be executed on a regional level), as well as price control (transforming the Law on Hospital Rates, *Wet Ziekenhuistarieven*, into a *Wet Tarieven Gezondheidszorg* (Health-Care Prices Act). A concrete step taken in 1975 is the limitation of the funds available for hospital building.

Although all plans are discussed intensively among the different parties in the health-care field and in Parliament, the real implementation, with the exception of the regulation of hospital building, has to wait until the eighties. During the seventies government includes a reduction of spending on health care, as part of the collective goods, in their financial plans. A 'bending' in health expenditure (a euphemism for 'cuts in spending') of 1.6 billion guilders is foreseen in the period 1979-1981 (*Bestek '81*). This amount increases in different cabinet plans to one billion guilders annually between 1984 and 1986 aiming at zero-volume growth and stabilisation of the costs per capita.

To gain insight into expenditure in health care, in 1977 the first version of a report called *Financieel Overzicht (Gezondheids) Zorg*, FOG (overview of expenditure and financing in health care) was introduced. Although this report was meant initially as a macro-economic source of reference, and to give government a better insight into the development of costs, in a short time it is perceived as a macro budget. Thus, Parliament uses the FOG yearly as if they are discussing the budget for health care, and as if they possess the instruments for actually regulating the spending.

It will take until 1979 before a new version of the *Wet Ziekenhuisvoorzieningen* (Hospital Facilities Act) is accepted by Parliament, and only after several changes in 1983 this version becomes operational. After an unsuccessful attempt of government in 1982 to close hospitals and wards, the planning policy is to reduce the number of hospital beds between 1982 and 1990 with 8,000. The short-term effect of these measures is minimal. After 10 years of discussion about the WVG (planning of health care), Parliament in 1985 decides to withdraw this law because it is probably ineffective and creates too much bureaucracy.

The Health-Care Prices Act (WTG) becomes operational in 1982. And although the new law gives government a greater influence on the rate-setting process as conducted by the COTG (Central Office on Health-Care Prices), the effect is limited because in 1983 a budgeting system for hospitals is introduced that makes the rate-setting process for hospitals less important. For the payment of medical specialists, the rate setting, linked to the fee-for-service mechanism, remains the main reimbursement system.

Although in the second half of the seventies government attempts are made to set create a new public insurance system for health care (*Algemene Volksverzekering*) including plans for a more extensive control of sick funds on the work of medical specialists, these plans never get off the ground. The political climate with the socialist party represented in the cabinet is not sufficient to make a majority in Parliament decide on drastic government interventions. However, it creates an external context in which plans for self-regulation by the medical profession through peer review become formalised and a national organisation for the support of peer review among medical specialists (CBO) is founded (see for a more detailed account 4.5.3)

3.7.2 From structure and process control towards outcome control

The net effect of government attempts to plan and control health care in general and specialist and hospital care in particular, is rather limited in the seventies. Although the need for cost control for economic reasons is a political issue of the successive parliaments, large scale interference of government with the actual planning of health care proves impossible in the context of the Dutch health-care system. Schut calls this the rise and fall of the comprehensive health planning scheme (SCHUT, 1995). Instead of trying to control the structure (hospital building 1945-1960) or the process (detailed planning and rate-setting 1970-1983) of health care, government now sees that the only way to control the costs will be output control. In succession to the budgeting of the building of new hospitals since 1975, they introduce a budgeting system to control the costs of hospitals in 1983 (based on the spending in 1982 and using article 14 in the WTG). This budgeting system is later considered as effective in containing the costs (MAARSE ET AL. 1993) as well as in increasing the efficiency of hospital use (CASPARIE AND HOOGENDOORN 1991). Apart from using a budgeting system for hospitals since 1983 government tries to contain the rise of the wages of nursing staff since 1984 through active policies. With respect to the income of the specialists, government also starts to interfere. From 1972 until 1989 government tries to implement an income policy for medical specialists that will be the source of continuous conflicts between specialists and the government (SCHOLTEN 1994). This policy process can be characterised as a wrestling match between government and the specialists using legal tactics (the limitations of government to interfere in free-income development in a liberal country) and strategies that try to make the problem more objective such as 'formal evaluation of the level of work of the specialist and their working hours', 'studies on the actual income of specialists', 'comparable salaried incomes of other professions and specialists working in university hospitals' and 'reshuffling of incomes among specialties'. At different moments during the wrestling match the specialists put weight in the battle through actions (strikes, Sunday duties on weekdays) and when the parties need a time-out, common policy documents are written that seem to reflect

mutual good intentions rather than describing a realistic solution to the problems (PROTOCOL 1980, GENERAAL AKKOORD 1984). Common interests of specialists and government prove to be large and the power of government to settle the match too little, hence in 1989 the strategy of an active income policy for specialists is abandoned and replaced by attempts to keep the total costs of medical specialists care within a pre-set national budget within the FOG. Using the FOG as a kind of macro budget, government tries to control the outcome of health care in terms of collective costs by adjusting the budgets, and successively the rates that are the payment units in the fee-for-service system. Although this approach had some short-term effects, the overall costs of health care keep on rising, mainly as a consequence of the autonomous growth process of health care (morbidity patterns in an elderly population, new services) that can be recognised in all Western industrialised countries combined with the general rise of salaries. The emphasis on cost control does, however, get a political counterpart in more discussions on the effectiveness of the health-care system. Broader social interest in health care asks in the eighties for more than a financial outcome approach. The result is that one part of the Ministry of Health produces reports about the future of health care, promoting a shift from health-care policies towards health policies and more emphasis on prevention (*Nota 2000, Kerndocument Gezondheidsbeleid* 1989) without any financial backing, whilst another part of the Ministry is just interested in the financial outcome and tries to cut down expenditure wherever it can. This ambivalent situation does not improve the trust of parties in the health-care field in government regulation. In 1986 a new route seems to be taken when the cabinet installs a committee for the restructuring and financing of health care, headed by Dr W. Dekker, former president of Philips Industries.

3.7.3 Maturation of the hospital as a professional bureaucracy with a public function within budget constraints

Further specialisation and differentiation of hospital functions witnessed in the sixties continues in the seventies and eighties. Although the effect of government interference will only become really noticeable with the introduction of hospital budgeting in 1983, growing public interest in the activities performed in hospitals means that both hospital management and medical specialists are asked more often to account for their activities. Hospital management starts to become interested in waiting times, and waiting lists and gradually an orientation on the primary process of hospital care takes shape. The interaction of the many different units becomes a point of interest for management and the general strategy shifts towards a vision in which the medical diagnoses and treatment are considered as the central processes to which all different (support) units should direct their activities (LETTINK 1988).

The medical specialist is no longer a consultant who rents a room in the hospital for his consulting hours but is seen as the initiator of the primary process and thus bears a responsibility for the hospital activities at large. The hospital is increasingly perceived as an professional bureaucracy (MINTZBERG 1979) with a dual organisation structure separating the specialists from the rest of the organisation. During the eighties the role of medical staff changes. The medical staff not only serves as an interest group for all specialists and a body for quality assurance (see chapter 5 and 8) but becomes involved in the management of the hospital. Especially when the budgeting system for hospitals is introduced it becomes necessary that hospital managers and medical staff work together to implement an internal budgeting system. Part of this is realised by negotiations between hospital management and the separate partnerships (*maatschappen*) where agreements on the foreseen production in the coming year are made, but another part is realised through negotiations between management with the board of the medical staff. Medical staffs start delegating certain mandates to their boards and gradually during the eighties specialists become involved in the process of strategy development and internal budgeting of the hospitals where they work. In the same period medical staffs are considered by the Dutch Specialist Organisation (LSV) as important communication structures which can be used to consult and inform their members about the continuous conflicts with the government over the government's attempts to control the incomes of medical specialists. As part of the Law on Hospital Planning licensing rules are developed for the number of specialists that are allowed to work in hospitals. These licensing rules, based on national quantitative parameters, limit the opportunities for specialists to start a practice and will have a major impact on medical manpowerplanning and the number of doctors' without a specialty registration working in hospital (see 5.2.5).

The philosophy of the role of the specialist in the hospital organisation culminates in 1985 in a report by the Dutch Specialist Organisation (LSV) on the medical Policy Plan describing in detail how medical staffs should be organised and interact with the hospital administration on policy and budgeting issues (LSV 1985).

Since 1983 the role of the specialists within the hospital organisation has changed considerably and opened the way for further changes triggered by the health-care reforms that dominate the discussion since 1987 (MAARSE ET AL. 1993). The replacement of the open-end financing of hospitals by a budgeting system (1983) also closes the way for hospital administration to solve conflicts with specialists by expansion of activities (TAP AND SCHUT 1987). Mutual dependency between hospital management and specialists becomes greater and the characteristics of hospitals as more mature professional bureaucracies with a dual organisation where mutual relations are increasingly formalised, become more visible.

3.8 1985-1995: MEDICAL SPECIALIST CARE IN HOSPITALS AS A SERVICE INDUSTRY WITHIN ECONOMIC CONSTRAINTS: THE TAMING AND BLAMING OF MEDICAL SPECIALIST CARE?

In 1987 the Dekker committee presents its report and with it gives fuel to a discussion on a more market-oriented health-care system. The committee was asked to come forward with proposals on three issues: decentralisation of decision-making in the health-care system, cost containment and restructuring of the health insurance schemes. In essence the committee proposes that government should withdraw from the role of 'planner and administrator' of the health-care system and future decisions should be taken in discussions among providers (health-care professionals and institutions), purchasers (sick funds and private health insurers) and the consumers. The committee proposes deregulation of the detailed laws on planning and rate-setting (WZV, and WTG), and the creation of a 'basic insurance scheme' that should be obligatory for all Dutch citizens but would have a coverage that, in volume, would only contain 85% of the health-care costs covered by the existing *Ziekenfondswet*. Together with the possibilities of additional private insurance, possibilities for individual risk taking related to premium reduction and co-payment, the committee assumes that this will create enough flexibility in the health-care system for competition among and between providers and purchasers that would eventually result in cost containment. Although the feasibility of cost containment in such a competition-oriented health-care system is questioned from the beginning, the plans are attractive for the different political parties for different reasons. The Liberal Party likes the idea of introducing market elements. The Socialists like the idea of a basic insurance scheme for the whole population which sounded like the *volksverzekering* (population insurance) they had fruitlessly been fighting for over decades. The Christian Democrats believe in the decentralisation of the decision-making thus giving more power to the corporate bodies in the health-care system where they have traditionally much influence. The firmness with which the cabinet in 1988 responds to the Dekker plans, subtitled *Willingness to change*, with a report called *Change assured* is in retrospect overoptimistic given the problems that have arisen introducing the changes (see also LAPRÉ 1988). In 1990 government changes and a coalition of liberals and Christian democrats is replaced by a coalition of Christian democrats and socialists. The new socialist secretary of state for health (Mr. H. Simons) presents a new plan which takes over a lot of the notions of the Dekker reform but alters the implementation process and the format of the 'basic insurance'. The general idea is to introduce the changes stepwise beginning with modifying the existing AWBZ (health insurance for exceptional medical expenses) by putting new elements for coverage in this population-

wide law whilst removing them from the realm of the *Ziekenfondswet* and previous private-insurance schemes. In the long term the AWBZ should thus be transformed into the 'basic health insurance' as proposed by Dekker. At the same time the execution of the social health insurance is no longer restricted to the traditional sick funds, but private insurers can also enter this market. This results in a series of mergers between sick funds and private insurers into 'care insurance organisations' (*zorgverzekeraars*) with a predominant regional orientation. Also since 1992 the obligation for sick funds to contract with all providers in their region is lifted. Over the years it becomes clear that the willingness of Parliament to remove elements from the insurance, thus limiting the cost volume, is very low. Competition among and between the purchasers and providers becomes possible to a limited extent by abolishing national contractual obligations, thus creating room for negotiations, but the resulting situation in health care can best be characterised as an internal contract market with limited room for competition, managed by government through an extensive social insurance scheme and a macro budget. The Dekker/Simons plans succeed in introducing dynamics in a health-care system that was caught up in its own regulations. The flexibility has improved and one of the main assets is that health-care providers and purchasers start to think and act in service-oriented terms. The managerial professionalisation of both purchasers (administrative oriented sick funds transforming themselves into regional conglomerates of enterprise-oriented care insurers) and providers (for example strategy development in hospitals and practice management development in groups of specialists) has surely been influenced by a political context where jargon from the industrial sector is predominant. The aim of the plan to realise a new basic insurance for the whole population is never reached. Where Dekker proposed a reduction in the cost volume of the coverage he did not say which elements could be deleted. At the start of the new cabinet in 1990 this discussion 'what are the priorities in health care' is also delegated to a commission, called after its chairman, the Dunning Committee. This committee comes in 1991 with the report *Critical choices in health care.* Although the report triggers a national debate on the issue, also among the medical profession, and contains some valuable advice on the criteria to use when making choices in health care, it does not settle the discussion on the necessary coverage of the basic insurance. This debate on the description of the coverage of the 'basic insurance' becomes even more complicated because, as a consequence of the deregulation policies, the formulation of coverage rights related to the AWBZ and especially the *Ziekenfondswet* has become less specific over the years. The idea is to describe the insurance basket in functional terms, thus allowing possibilities for substitution between different professional groups and institutional settings to deliver the care. Although these 'functional formulations of health insurance baskets' are positive in their attempts to create flexibility, they are less useful as instruments for the limitation of the overall coverage by excluding certain forms of

health-care services, which asks for a more detailed description. Thus the strategic goals of decentralisation and limitation of the insurance coverage seem to create a paradox in this respect. The third, and in a period of economic instability perhaps for the politicians most important aim, i.e. cost containment, only partly succeeds. Health-care costs as a percentage of the GNP still rise although the rise is not as steep as it used to be.

It also appears to be evident that government does not believe anymore in cost containment as a result of market forces. Especially during the years 1992-'94 it becomes evident that although the Dekker/Simons plans are still the core of discussions, the FOZ (macro-economic overview of cost development in health care) is more and more perceived as a macro-budget and government is retaking its role of overall administrator. This is especially noticeable for the specialists and the hospital sector. Since the introduction of the budgeting system in 1983 the hospitals have become used to budgets, that over the years were based on an increasingly differentiated set of functional parameters. Together with this external budgeting, internal budgeting mechanisms take shape and specialists become more and more involved in discussions on cost containment on a hospital level. The Dekker philosophy initiates many of new ideas in the minds of hospital directors and specialists about new functions/enterprises and policy plans of hospitals contain many ideas about new initiatives (day-care, specific policlinics, policlinics and operating rooms open during weekends, providing hospital care in the home situation, consultancy function for GPs). In reality, however, the room for innovation is limited. Many of the old government regulations are still in place and the sick funds, in their new role as purchasers, are reluctant to take too many chances, partly because of the uncertainty about their own financial possibilities.

3.8.1 Policies towards medical specialists: preaching entrepreneurship whilst enforcing economic integration in the hospital organisation

With respect to the specialists' income, in 1989, after lengthy negotiations and strikes and other actions by specialists in 1988 an agreement is reached between hospitals, specialists and insurers (the five-party agreement VPA). This agreement states that the different groups will do their best to limit the specialist/hospital production volume to the level of 1988 for the three coming years. This agreement quietens the discussion about the specialists' income for several years. However, in 1992 it becomes evident that the overall specialist/hospital production volume is higher than agreed upon. Although there is a lot of debate about the reliability of the data, government draws the conclusion that self-regulation through the VPA has failed. In 1993 the secretary of state uses his legal power to reduce the specialists' rates to make the overall cost volume compatible with the goals as set by the FOZ. The fact that government has to use this instrument shows that with respect to cost containment of specialist care they

have again taken up the role of overall administrator. Naturally this behaviour gives rise to protest by specialists and a new series of actions, like in 1988, are executed with the aim of obtaining public support.

In the meantime another phenomenon arises within the specialists' community. Several groups of specialists are already against the VPA; they claim that the cost-containment measures are unjustified. These groups organise themselves eventually independently in the Dutch Specialist Federation (NSF). Other specialists are of the opinion that too much emphasis is given to economic issues by the Dutch Specialists Association and they organise themselves in the Dutch Specialist Society (*Nederlands Specialisten Genootschap*). The representativeness of the Dutch Specialist Association (LSV) as mouth for all specialists is even further undermined in 1993 when debates between regional groups of specialists and scientific associations culminate in a Board crisis that is expressed in full in the public media. What this demonstrates is probably partly due to the health system changes with respect to deregulation combined with the rigid government cost-containment policy towards specialists. At least three different fora for discussion emerge:

- the regional forum (with the local purchaser);
- the forum of scientific societies (specific interests of one professional group);
- a national forum (negotiation for all specialists with government and national representatives of hospital boards and purchasers).

This debate gradually results in the restructuring of the specialist association. The different discussion fora and their respective authority are questioned and restructured. The finding of solutions that are acceptable for all specialists is, however, still hindered by the previous and foreseen substantial fee reductions for all specialties and existing major differences in income between the different specialties.

To start reforms in the payment structure for specialist care the government set up in 1993 a new committee, chaired by a former prime minister (Biesheuvel committee) that had the task to advise on financing mechanisms for specialist care that will be more concordant with the already implemented health-care reforms. The committee advises to integrate the costs of specialist care in the total budget of the hospital. Thus the fee-for-service system will be abandoned and the reimbursement of specialists should be set up in synergy with the reimbursement of hospital costs. It is suggested that a salaried position for specialists is a good method to realise the various objectives.

3.8.2 Purple initiatives and mixed reactions

After the elections in 1994, a new cabinet is installed, representing the socialists and two liberal parties, excluding the Christian democrats. This 'purple coalition' states that it will implement the Biesheuvel proposals and at the same time will contain the costs of health care (allowing only 1.3% growth per year). The plans for a 'basic

insurance' are abandoned and the minister of health (health was upgraded towards a cabinet position) proclaims in 1995 that the future insurance will be based on the sick funds act for acute care, the AWBZ for chronic care and voluntary additional private insurance. No new major blueprints for health-care reform are announced. As a reaction to the Biesheuvel report the parties directly involved, specialists, hospital managers, and insurers set up a 'platform for curative care' (this time also including the patient/consumers organisation as a partner contrary to earlier platforms such as the 'Five-party agreement' (VPA) in 1989, see 3.8.1). The ideas proposed by this platform mitigate the Biesheuvel plan to abandon fee-for-service payment for specialists and create salaried positions. The platform promotes a system for output pricing for hospitals where the costs of the specialists are included but room for entrepreneurial activities for specialists within an altered financial framework remains. As a result of the different plans, in 1994 several local experiments are set up with alternative modes of financing specialist care within the total budget of the hospital. After an announcement of minister Borst that medical specialists participating in a local experiment will be exempt from fee reductions, the number of agreements on experiments between hospitals, specialists and local insurers rises to about 70% of all hospitals and alternatives for the reimbursement of specialists have been developed (I.E. SCHOLTEN 1996, GROENEVELD 1996).

3.8.3 The hospital company

All through the period 1985-1995 the hospital organisation becomes more and more complex. Partly because of new technologies, partly because of the increasing turnover of patients and the shift from patient care from the clinical towards the policlinical and day-surgery setting. The hospital is more often compared with a service industry producing medical specialist care that has, especially since 1987, to operate within a certain external market. The ideas about hospital management change accordingly and the economist starts to play an important role in hospital management. The national hospital organisation (NZF) and the national hospital institute (NZI) support management development in hospital organisations and themes like 'strategy development', 'internal budgeting', 'hospital informatics' and 'the position of the hospitals board of trustees' appear regularly in the journal of the hospital association (*Het Ziekenhuis*). The relation between hospital management and the specialists becomes an important issue in the further development of the hospital organisation, as will be discussed in more detail in chapter 5. The innovative spirit of hospitals seems to benefit from the policy plans on a more market-oriented health system, but the level of governmental influence through regulation and budget restrictions is still high and the source of a continuous struggle between hospitals and government.

3.8.4 National quality assurance policies and local initiatives

For the development of Quality Assurance the 1985-1995 period seems from a policy perspective to be a golden era. The shift to market and service thinking has enforced already existing quality-assurance mechanisms and has added some new dimensions (KLAZINGA, CASPARIE 1993). In the Dekker report it was stated clearly that negotiations between providers, purchasers and consumers should not only be limited to volume and price but should also tackle quality. This notion is enforced by the different corporate bodies in the Dutch Health-care system and in 1989 and 1990 two major conferences are held in Leidschendam where the different parties in the health-care field (providers, purchasers and patient/consumers) agree on a common policy towards quality of care (CASPARIE 1993).

In summary the providers are given the responsibility to develop mechanisms for quality assurance (criteria, and internal and external quality systems) and the consumers and purchasers should be consulted during the development and should have insight into the functioning of the systems. Quality assurance should be undertaken as a collaborative effort and based on mutual trust and respect, thus enforcing the harmony model so familiar in the Dutch health-care context, rather than mistrust, control and inspection. A committee of the National Council on Public Health is set up to monitor the agreements reached during the Leidschendam conferences. These conferences set in motion a lot of actions both on the level of the corporate bodies (NIVEL REPORT 1992) and individual practices in health-care institutions (NIVEL REPORT 1993 AND 1995). The development of quality systems becomes a major objective of both professional groups and institutions. Government supports these initiatives and develops its own policy plan (*Quality of Care* 1991) that is complementary to the initiatives of the field parties, starts an action programme for quality projects (1990-1993), a research programme on quality of care (RGO *report* 1991) and presents in 1992 a proposal for a law on quality in health-care institutions that becomes effective in 1996. This law, that replaces the existing detailed regulation of health-care institutions, is formulated in general terms and asks institutions (such as hospitals) to develop quality systems and be accountable for their functioning. It provides a legal frame for quality improvement initiatives but relates for the actual execution heavily on the principle of self-regulation by the health-care providers. The central criteria of the quality systems (and thus the goals of the institutions) are not specified but should cover three areas: effectiveness, efficiency and patient orientation. The reactions to this law are positive and it is perceived as supportive to the many existing quality initiatives and in concordance with the further development of quality management of medical specialist care.

In 1995 a third national conference on Quality Assurance Policy is held in Leidschendam. The results of the previous five years are evaluated and new agreements are made. These agreements reinforce the previous established common policy agree-

ments and stress the importance of the further development of quality systems with sufficient input from the patients/consumers.

3.9 THE BIRTH AND GROWTH OF SYSTEMS FOR QUALITY MANAGEMENT OF SPECIALIST CARE IN THE NETHERLANDS: *Professionalisation and organisational development interacting with a changing context of corporatism, government planning and market mechanisms in a socioliberal society*

In the previous paragraphs the roots of quality management of medical specialist care in hospitals in The Netherlands have been explored by providing a historical overview of professionalisation of medical specialists and organisational development of hospitals in their economic and social context. The dynamics of the development of a profession in an institutional setting within a certain external context can be best understood by providing this kaleidoscopic view. The interference of the different forces on contingent processes as professionalisation and organisational development provide a better explanatory model than a one-dimensional causal descriptive model would. The present interest and nature of quality management of specialist care can thus be explained partly from the dynamics inherent in professionalisation, especially in relation to the scientific/technical development. As will be demonstrated in chapters 6 and 7, this holds especially true for interest of specialists in decision-support mechanisms such as practice guidelines and evaluative actions such as peer review studies. Another part should be explained from the demands laid upon the management of specialist care by the hospital organisation, perceived more and more as a service industry. Industrial models and management theories enter the world of hospital administrators and boards of trustees. The interest in standard care plans and other logistical models applied to clinical care seem to have their roots in this domain. Both the social and economic context shape the nature of the quality-management initiatives and in this chapter the shape this context has taken in Dutch health-care policy during the past century, has been described, with emphasis on the developments during the past ten years where 'quality' was identified as a separate policy field with its own jargon. The need for accountability and economic efficiency provide external stimuli for the development of 'quality systems'. This interest in quality systems can be perceived as a relabelling of already-existing activities and the construction of new ones. The adaptation of specialist care to the organisational and external conditions should be reflected as an adaptation of professional autonomy with renegotiation of responsibilities and trust rather than expressed in terms of increase or decrease (SCHEPERS AND KLAZINGA 1993). Quality Management of medical

specialist care taking shape within quality systems is a logical response to the 'service industry' approach of care, introducing not only a new jargon but also reflecting a changing attitude towards professional responsibilities in the realm of quality, not only including medical effectiveness but also efficiency and patient satisfaction (KLAZINGA AND CASPARIE, 1993).

During the past twenty-five years government has twice tried to structure the health-care system by means of a blueprint approach: the *Structuurnota Volksgezondheid* in 1974, based on the planning philosophy, and the Dekker plan in 1987, based on the internal market philosophy. Both times these resulted in piecemeal policy-making although the economic and social pressure on the health system has not diminished. Specialists and specialist care have been the subject of a lot of framing and taming, especially initiated by government. However, underneath the policy rhetoric on changes in political and economic autonomy lies the practice of day-to-day clinical decision making. It is around this practice that 'quality systems' have been developed that serve the need of the professionalisation of the medical profession as well as the embedding of the profession in the organisational and social-political context. To quote Johnson (1995):

> *"Once we recognize the symbiotic form of professionalisation and state formation it also becomes clear that any modern government that pursues policies with the effect of politicizing established areas of expertise and destabilizing existing professional jurisdictions also risks undermining the entrenched conditions that sustain legitimate official action."*
> JOHNSON (1995)

The history of what is at present labelled as 'quality management of medical specialist care' is also the history of how new knowledge is internalised and institutionalised in a profession and legitimised by state and society while operationalising the concept of health and balancing it with various other individual and social needs and beliefs. This chapter was meant to illustrate how medical specialist care was developed over the years and how its quality management is transient with the context in which the profession and the hospital organisation in mutual dependency developed towards the 'integrated specialist care company' they are today. Relevant characteristics of the Dutch situation were discussed in the previous paragraphs, such as the organisational embedding of the specialists in the hospital (closed hospitals, medical staff and partnerships), the role of GPs in the health-care system and the involvement of physicians in hospital management. It can also be concluded that government interference towards medical specialist care has over the years consisted of maintaining varying levels of external pressure on both specialists and hospitals. This pressure has supported the development of various manifestations of self-regulation and a growing intertwining and formalisation of the relations within the profession and

between specialist and the hospital organisation. The present phenomena labelled 'quality systems' are the latest exponents of this ongoing process.

In the following chapter the nature and development of several quality systems *avant la lettre* will be discussed in more detail, following the same model of analysis as applied in this chapter. These 'systems' are: the training and registration of specialists, disciplinary law, activities within scientific associations and the CBO-programme for peer review among specialists in hospitals. For a proper understanding of these phenomena they are continuously placed in the scenery that was described in this chapter and in which a socioliberal culture towards health policy, neo-corporatism, government planning and market mechanisms as the successive dominant policy concepts (VAN DER GRINTEN, 1996) are important features.

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Chapter 4
The development of quality management of medical specialist care through quality systems within the profession

> *"The medical profession, in common with all others, functions under a social contract granting it privileges, but imposing obligations in return. The most precious of these privileges is self-governance. The most stringent of the corresponding obligations is stewardship of the public interest. Assuring the quality of care is the chief component of that stewardship."*
>
> Avedis Donabedian (1991, p. 85)

4.1 INTRODUCTION

The previous chapter has provided a historical overview on the development of specialised medical care in Dutch hospitals focusing on professionalisation and organisational development within the specific economic and social context. Several laws, programmes, instruments and activities were mentioned that can be considered as quality management and quality systems *avant la lettre*. A quality system in the jargon of industrial quality assurance is:

> *"The organisational structure, responsibilities, procedures, processes and resources needed to implement quality management."*
> (ISO 9004.2, 1991)

A quality system for medical specialist care would therefore be the organisational structure, responsibilities, procedures, processes and resources needed to implement quality management of medical specialist care. In this chapter (parts of) the medical profession are taken as the organisational structure in which the 'quality systems of the profession' are studied.

Traditionally specific training and formal recognition (legal protection) of professional practice are considered as important characteristics of a profession (PARSONS 1939, WILENSKY 1964, LEUNE 1971, SCHEPERS AND NIEVAARD 1990) and, more recently, activities such as

guideline development and peer review are also recognised as activities of the profession to assure its position in society (KLAZINGA AND CASPARIE 1993, POLLITT 1993, DENT 1995). These old and new manifestations of professionalisation are now increasingly relabelled in industrial terms that have entered the health-care arena on the waves of governmental health policies that try to create an internal market (see 3.7 and 3.8). In industry the 'system concept' is usually applied to the production process, thus activities such as training and legal protection of professional titles would be considered as preconditions for quality management rather than as systems. Applied to the professional practice, however, the concept of 'quality systems' can be used to describe various phenomena such as disciplinary law (4.3), visitation programmes (4.4) and peer review (4.5) relating to the different organisational structures in which the profession has organised itself such as the whole medical profession, one scientific society, the medical staff of a hospital or a partnership of specialists. Given its organisational roots, it is easier to apply the industrial quality system jargon to organisations that resemble the company structure such as hospitals. Therefore the use of the term 'quality system' is more prominent in health-care organisations than for professions (NIVEL report 1993, see also chapter 5). However, the term 'quality systems of the professions' has got its own meaning and operationalisation (NIVEL 1990, GROL 1991). It relates to a series of phenomena, developed within the medical profession, to systematically plan and control medical practice. These 'quality systems within the profession' have their own dynamics as part of the professionalisation process and are intertwined (KLAZINGA AND CASPARIE 1993). They have elsewhere been described as a series of rungs that form part of a ladder (KLAZINGA, 1992). Various elements ('subsystems') constitute together the overall quality system of the medical profession. In this chapter, four of these elements that have traditionally been linked to professional self-control of the quality of medical practice will be described and analysed from this more recently introduced quality system perspective as well as from the perspective of professionalisation theory. The professionalisation perspective stresses the consequences for clinical autonomy (control over medical practice) but will also look at the consequences for the economic and political autonomy of the medical profession and its subgroups (ELSTON 1991, SCHEPERS AND KLAZINGA 1993). The four phenomena studied are:

- specialty training and (re)registration of specialists under the realm of the KNMG;
- disciplinary law for physicians;
- quality-management activities within scientific societies of medical specialties (i.e. continuous medical education (CME), visitation, guideline development, registries and audit studies among members of a scientific society);
- the national programme for peer review among medical specialists in hospitals initiated by the LSV and supported by CBO.

These four phenomena are chosen because together they constitute major activities to guarantee the quality of medical practice, developed to a large extent within the realm

of the medical profession by different professional corporate bodies such as the KNMG, scientific societies and the LSV. Specialty training and registration constitute the traditional basis of assuring the quality of practitioners, the system of re-registration is included in the analysis because it constitutes a recent formalisation of the extension of the registration system from the realm of professional training to the realm of professional practice after the training has been completed (4.2.6-4.2.8). The system of disciplinary law is also chosen for further analysis because of its traditional roots and recent adaptations (4.3). The activities of the scientific societies are analysed as a whole and include a wide array of different quality-management activities such as continuous medical education, specific registries (for example on complications), guideline development and visitation programmes for partnerships in non-teaching hospitals (4.4). The reason to take these activities together lies in the decision to dedicate a separate paragraph to activities of scientific societies to contrast these activities with quality-management activities that were primarily set up within the organisational frame of the LSV (i.e. peer review) and the KNMG (i.e. specialty training, reregistration and disciplinary law). In the discussion it will be made clear why this distinction is relevant. The peer-review programme is taken because it is a type of quality management that comes closest to the direct evaluation of specialist care and forms a good illustration of how nature and development of a quality management technique are shaped by the interaction between the profession, the role of specialists in the hospital organisation and the national health policy context (4.5).

All four phenomena will mainly be described through their manifestations on the national level. More detailed quality-management activities within hospitals are discussed in chapter 5 and concrete peer-review studies and guideline development are discussed, based on a variety of empirical material, in chapters 6 and 7. The central questions on the development of quality management of medical specialist care: why, what and how (see chapter 2), will be answered for each of the four phenomena. It will be illustrated that the 'what' and 'how' are closely related to developments within the profession, caused by progress in medicine (knowledge/technology) as well as with dynamics in and between the different organisational groupings of the profession such as the KNMG, LSV, scientific societies, medical staff in the hospital, and partnerships. The relation is explored between the nature of the quality-management activity and its locus. The 'why' seems to a large extent determined by the dynamics between the medical profession on the one hand and the other actors in the health-care field such as government, financiers, hospital management and patients on the other. To illustrate these dynamics the following four paragraphs will start with a brief historical overview exploring the roots of the phenomenon under study.

4.2 THE DEVELOPMENT OF QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE: THE ROLE OF SPECIALTY TRAINING AND (RE)REGISTRATION UNDER THE AEGIS OF THE KNMG

Very early in the history of the development of the medical profession it has become clear that training is a basic condition for the realisation of good medical practice. It was mentioned before that the unification of the medical profession and the recognition of the university as the legitimate place for the training of doctors (1865) had a major impact on the further development of the medical profession (3.3.2). Medical faculties are part of the Dutch university system and, although rather autonomous in their actions, come under the responsibility of the Ministry of Education. The postgraduate training of specialists, general practitioners, and specialists in social medicine is primarily the responsibility of the medical profession itself. All postgraduate vocational training programmes consist of a combination of training in practice and separate theoretical courses. Initially specialty training was purely theoretical and the specialists at the beginning of the century performed their practice mainly in special policlinics outside the hospital. However, with the integration of the specialists in the hospital 'postgraduate bedside teaching' became more common. The hospital became both working and teaching place. To consolidate their position, groups of specialists started to organise themselves in scientific societies, of which the first, the Scientific Society for Psychiatry and Neurology (*Vereniging voor Zenuw- en Zielsziekten*) was founded in 1873. Others followed such as the Society for Surgery in 1902 (KUIJER, 1977) and the Society for Internal Medicine in 1931 (GEERLING 1981). Apart from scientific societies, local professional organisations were founded that functioned as a kind of trade union: the oldest is the Amsterdam Specialist Association, set up in 1905. As a result of the resistance against specialisation of the majority of physicians who still had a general practice, the NMG was slow in its response to the phenomena. An independent Specialists Association was founded in 1910 that was eventually integrated in the NMG in 1914 (VAN DER KORST 1988). Hence, at the turn of the century a rudimentary infrastructure for specialist care practice as a profession had emerged characterised by scientific societies and different groupings of specialists both inside and outside the NMG.

4.2.1 *Short history of the development of an infrastructure for specialty training*[9]

Gradually rapid changes in medicine and competition between 'generalists' and 'specialists' made the majority of doctors realise that further formalisation of specialisation was necessary. At the same time some external pressure is put on the profession by government to handle the situation. To 'prevent chaos and to assure quality', Prof. Dr. G.C. Nijhof suggests in 1930 that a register of qualified specialists be kept. This proposal is accepted by the board of the medical association (NMG) on 13 December, 1931. Thus the Specialist Registration Committee (SRC) comes into being. In the years until World War II the SRC tries to formulate the training requirements for the different specialties and the requirements for the hospitals that will be selected as official training sites. For this task they are assisted by representatives from the different scientific societies. The training requirements are officially endorsed on 21 November 1939. During World War II war a large part of the work is destroyed because the NMG (and with it the SRC) abolishes itself. The war-time medical resistance movement *Medisch Contact* develops into the re-founded NMG at the end of 1945. The SRC is also re-erected and an executing committee (*Commissie van Uitvoering*) takes charge of daily activities.

In 1946 the Dutch Specialist Association (LSV) is founded. In the same year the family doctors organise themselves in the Dutch Association for Family Doctors (LHV). Both associations are considered as 'daughters' of the Dutch Medical Association that becomes Royal (KNMG) in 1949.

In 1948 the LSV and the SRC decide to join efforts to improve the training situation for specialists.

In line with the post-war growing interest of the government in health care and complaints about the procedures for judging the suitability of hospitals as training sites, the Ministers of Education and Social Affairs decide in 1952 to install a State Committee to study the training and recognition of diplomas for specialists. It has to wait till 1960 before the report of this committee results in a new organisational model for specialty training, inspired by Montesquieu's *trias politica*. The training of specialists has to be organised through three different bodies. The first body, the one that formulates the training requirements (law making) is the Central Board for the Recognition and Registration of Medical Specialists (*Centraal College*). Installed in

[9] *The description of the system of specialty training is based on a variety of sources, including the work of Festen (1963 and 1974), Vink, de Roo (1985), Pannekoek (1968), Van Nieuwenhuizen (1968, 1971), Van der Mijn (1973) and reports of the* Centraal College *(1982) and* KNMG *(1981,1990).*

1961, it is composed of members from the scientific societies and the medical faculties. A second body, for keeping the register and excising control over the fact if the training requirements for candidates and training facilities are met (law keeping) is the Specialist Registration Committee (SRC). The third is an independent body for law-speaking if any conflicts arise: the *Commissie van Beroep* (Committee for Appeal).

Since 1961, after some pushing and pulling between the medical profession and the ministries responsible for health and education, representatives from government participate in the meetings of the Central Board. Apart from the quality control task with respect to training programmes, training site and trainers (since 1971 often a group of specialists that constitute a training team), the SRC also gets the task to support the trainees (residents, in Dutch: *assistent-geneeskundigen in opleiding*, AGIO's).

4.2.2 *Quality management of specialty training*

In 1965 an evaluation form is introduced to evaluate the progress of the AGIO, that should be filled out by the specialist who is the formal educator. In 1968 a second form to evaluate the educator and the training site is introduced to be filled out by the AGIO.

In 1966 a visitation programme for teaching hospitals starts. Every five years specialists who are registered as educators and the teaching hospitals are visited by a team of peers once every five years that reports on the actual training conditions. Based on this report the SRC decides whether or not to prolong the teaching status. The whole procedure is aimed at the systematic review of the teaching conditions (the process) and does not evaluate the quality of the trainee (the product).

Although there are differences among the ways the visitation programmes are executed for the different specialties, the procedure always includes a visit announced beforehand, a review of materials on the site, discussions with AGIOs and with specialists from other specialties working in the hospital, and the writing up of a report.

Although the training requirements differ for the various specialties, over the years the Central Board is developing, in addition to qualitative norms, some quantitative norms. These quantitative norms are about the number of residents versus the number of beds in a certain speciality in a hospital and the variety of other specialties in a certain hospital that should have a recognition for training. Thus, during a period of rapid growth of the number of specialists and the already declining number of beds, CC and SRC try to assure the quality of the training by assuring that trainees will have sufficient possibilities to learn certain specialty skills. Another way to achieve this is the differentiation of training facilities into hospitals with an a status and hospitals with a B status. Hospitals with an a status are recognised as a training site for a full training-period, hospitals with an B status can only provide training for a certain period of the training programme. In the last decades an average of 35% of the Dutch general hospitals has

a teaching status. An evaluation study of the training policies of the CC in 1985 (DE ROO, 1985) states that the situation in the USA (accreditation movement and system-based curriculum development) has been a source of inspiration for the CC. The study is critical on the assessment methods used at that time. Furthermore, the conclusion is drawn that through using qualitative arguments on specialty training, specialists are implicitly executing a quantitative manpower policy and the link between practice demands and training requirements is rather weak. An analysis of the present mechanism for the control of specialist training and registration of specialists from a quality management perspective is presented in the following paragraphs.

4.2.3 The motives behind the development of the present infrastructure for specialty training

'WHY' — The motives to set up a system to standardise and control the training of specialists in The Netherlands seem to be strongly linked with the development of the medical profession and its self-regulation. On the one hand standardisation of vocational training can bring about a correct transfer of medical knowledge and control of the medical performance (clinical autonomy). On the other hand the existence of specific training programmes helps to strengthen the formal position of specialists as a group, both economically and in terms of status (economic and political autonomy). The two reasons expressed by Nijhof in 1930 at the start of the registration process are a good illustration: "*to assure quality and to prevent chaos*". The combination of these goals is a natural phenomenon inherent to the growth and development of a profession. Putting focus only on either one of these goals provides a one-sided perspective: neither purely idealistic reasons, nor purely power-oriented motives are at stake but a combination of these two. It seems evident, however, that, during the early phase of the development of specialties and in the social context of the pre-war period, training and registration were considered to be dealt with within the professional domain. After the initiative of government in 1865 to introduce a uniform diploma for all physicians, the process of recognition of specialty diplomas is to a large extent determined by dynamics within the profession. The Medical Association (NMG) is challenged in its role as association for all physicians and specialists organise themselves first in scientific societies but later also in specific interest groups with a trade union character. The intra-professional dynamics, especially between the vested interests of physicians with a general practice (urban and rural) and the specialists are partly resolved with the introduction of a register for specialists set up within the realm of the NMG. Apart from scientific recognition, this register also implies formal recognition of their skills and knowledge and thus increased economic autonomy for the specialists when their title becomes a prerequisite for contracts with sick funds about the delivery of 'specialist care'.

During the first part of the twentieth century government does hardly interfere in the specialisation process. Only after the war, transient with governments involvement in economic development, government tries actively to influence the development of new specialties. However, at that time the infrastructure for specialty training has already been developed and only through external pressure through state committees government can modify its working. The dynamics between state and profession result in modifications of the model. The 'Montesquieu model' is introduced in 1960 with an ultimate right of government to reject the decisions of the Central Board. Also since 1961 a government-representative participates in the Central Board meetings. This does not alter the principle of self-regulation within the medical profession. Government even formalises this situation in respective laws that regulate the system of professional titles in The Netherlands (LE. BIG, 1994). As a consequence of the formalisation of the registration process and the extension of the registration model to the fields of general practice, social medicine and nursing home medicine, interests of various groups of professionals start to differ more strongly over the years. These inter-professional conflicts seem inherent to the specialisation process and need moderating, either by the Medical Association or by government. In this respect the role of the KNMG in moderating the intra-professional conflicts does not seem easier than when this role would have been taken up by the state.

4.2.4 *The nature of quality management of specialty training*

WHAT — During specialty training, when emphasis is put on the quality of medical care, it usually implies increased medical effectiveness. The quality of training programmes themselves is initially discussed mainly in terms of years of training at a selected training site and the skills of the educator. When the number of specialists rises and the master/trainee relation is not self-evident any more, different quantitative parameters are introduced to assure the quality of the training sites (i.e. minimal number of beds, patient contacts, allied specialists etc.). The triad of Montesquieu model as the basis of the organisational structure, the introduction of a visitation programme for teaching hospitals, and the introduction of evaluation forms, show that the quality management methodology gradually gets the shape of a more formalised system. After the creation of an infrastructure in which the different tasks and functions are defined (SRC, CC, CvB) and the responsibilities of the different actors are formalised (scientific societies, medical faculties, KNMG and government), procedures are developed to assure the quality of the teaching structure and process (visitation) and of the (interim) outcome of the teaching (examinations, progress evaluation). Over the years this 'quality system for medical specialist training' gets more sophisticated and recently attempts to produce 'chain quality' can be found in

the attempts to link the end-terms of the medical training programmes at the universities (*Raamplan 1994*) with the content of the specialty training programmes.
Apart from thinking of quality in terms of medical effectiveness, the formulation of training requirements at the end of the eighties shows an gradual inclusion of notions on efficiency, hospital management and doctor-patient relation. External developments seem to have a slow but gradual effect on the content of the curricula. Apart from that, training in quality management also becomes an educational goal in itself (KLAZINGA 1993, KLAZINGA AND REERINK 1991).

'HOW' — The quality management system for specialist training and registration is gradually including elements that bear similarities with the elements mentioned in the 'quality systems' as described in industry. The ISO definition mentions the elements 'organisational structure', 'responsibilities', 'procedures', 'processes' and 'resources' needed to implement quality management. The following comparable elements can be recognised:

- functions of standard setting, control and appeal are separated in the organisational structure (1960, CC, SRC, CvB);
- new standards (especially prolongation of training periods and introduction of new specialties) need the approval of the Minister of Health on advice of the Board of KNMG; the Minister has to respond within three months and indicate whether there are any major objections;
- an external control system for the teaching facilities is developed (visitation, 1966);
- a systematic evaluation of the performance of residents by means of a survey among the educators is introduced (1965);
- a systematic evaluation of the performance of educators and the quality of training facilities by means of a survey among residents is introduced (1968);
- feedback resulting in registration of new specialists is realised through a series of formalised procedures;
- feedback resulting in registration of certified teachers (*erkende opleiders*) and training sites is formalised through several procedures;
- accountability towards the profession is sought through annual reports sent to the Board of the Medical Association (KNMG) and published in a generally available medical journal (*Medisch Contact*);
- representatives of the government participate in the meetings of the *Centraal College* (since 1961);
- The *Centraal College* is composed of members from the scientific societies and the eight medical faculties to assure the link between initial medical training and post-graduate training as set up by the scientific societies;
- the necessary resources for the system of specialty training and (re)registration is provided through contributions of the specialists registered, through funding by the KNMG and additional funding by government.

In addition to this maturing quality system for specialty training, it should be mentioned that since the eighties the majority of training programmes have included national courses (basic as well as advanced) and formal examinations (SWIERSTRA, 1995). Although the present infrastructure for specialty training seems to include all the elements mentioned in the industrial 'quality system' definition, this does not fully guarantee the quality of the training programmes. This also depends on how the infrastructure actually functions, whether educational arguments bear any weight against professional interests and whether the training programmes match with the demands that are put on a registered specialist in practice. Specialty training is not an isolated process built on educational principles but one brick in the overall quality system of the profession that is continuously challenged by conflicting interests inside and outside the medical profession.

4.2.5 *Recent discussions related to quality management of specialty training*

The system has become mature and has obtained recognition inside and outside the profession. Anno 1995 it covers registers of a total of 29 specialties. Due to more recent developments several aspects of the quality management system of specialist training are under discussion.

It is questioned whether the level of accountability, as achieved through the elements mentioned above, is sufficient given the growing appeal for openness in quality management systems asked for by other parties in the health-care field such as financiers, patients and government. The positioning of the system within the framework of the medical association is questioned as well and perhaps ways should be found to give the whole organisational structure of the quality management of specialist training and the keeping of a register of specialists a more independent position suitable for a semi-public organisation in present Dutch society. Ideas are launched to involve other parties, such as the financiers, in the activities of the CC and SRC, as a direct consequence of the changing position of the government towards the profession as part of the health-care reforms (DEKKER 1987, BIESHEUVEL 1994, PLATFORM CURATIEVE ZORG 1994).

The present structure and procedures facilitate the development of new specialties. Several times discussions have been held about the introduction of 'endorsements' (specialty certificates for specific areas of medical practice that can be obtained by specialists from different specialties; for example, an endorsement for intensive care medicine that can be obtained by internists as well as surgeons and anaesthesiologists). Endorsements for special activities within the realm of existing specialties and the introduction of training modules across specialty training programmes that are at present strictly separated would make the whole training system more flexible. These notions of 'horizontalisation policy' (activities across the 29 pillars that constitute the

specialties with their registers) which have been introduced in the university programmes since the beginning of the eighties, have not become effective in specialist training as yet. Rapid changes in specialisation might perhaps facilitate the necessity of a more horizontal approach towards specialty training although present procedures have become a small bureaucracy in itself that is difficult to overcome.

Recently, plans of the CC to close the register for the specialty *allergologie* (immunoallergology) have again given fuel to the discussions on endorsements.

Training standards are based on full-time training programmes. At present more than 60% of medical students is female and a growing number of specialists choose to work part-time, so the appeal for part-time specialist training programmes has been heard. Standards have been developed that describe the conditions under which a training programme can be followed on a part-time basis. Here arguments about the quality of the training programme are contrasted with arguments of job (and training) satisfaction.

The accomplished complex infrastructure for decision-making on specialty training and the 'turf battles' between specialties it tries to mediate explains why the implementation of change can take a long time. Debates on accountability, endorsements and part-time training programmes are going on already for more than a decade. Although these slow developments constitute sometimes an agonising factor for the promoters of change, they bear some similarity to the long-lasting processes of reaching consensus that are known from other medical associations (AMA, BMA, CMA). The gradual decision-making processes in professional organisations, such as the KNMG, seem to have a lot in common to the decision-making processes as promoted in Total Quality Management programmes and the Kaizen method in industry, provided that general agreement on strategy and homogeneity of culture exists in a large professional group as well as in a large company.

Nevertheless, inter-professional conflicts, channelled through the specialty training infrastructure, sometimes hinder an adequate response to developments outside the profession, especially with regard to training requirements, and may in the long run endanger the position of the medical profession as a whole. An increased external orientation of the quality system created for specialty training could be the next phase in its development towards Total Quality Management of specialty training.

4.2.6 Towards a system of re-registration for medical specialists

As stated earlier, the system for registration of medical specialists and control of the training programmes has matured over the sixty-five years of its existence. At the beginning of the eighties however, a discussion started on the necessity of reregistration of specialists (FERMIN AND VAN DEN BERG, 1985). Was it around 1930 considered wise to keep a register of specialists that fulfilled their training requirements, during the

seventies and the eighties initiatives to assure the quality of practising physicians forced a debate on the need to establish a complementary system for re-registration. Different factors contributed to the fact that re-registration was eventually formalised and implemented by the medical association:

- the growing need for external accountability (comparable with the discussion on the need for certification of hospitals off 1987, fuelled by the ideas of the Dekker report);
- the ageing of specialists and the notion that one should stop practising at the age of 65, i.e. a social norm that eventually has also become a professional norm;
- the fast expansion of new medical knowledge and technology;
- the growing number of activities to assure the quality of specialist care, such as CME and peer review, that potentially could be used as criteria for re-registration;
- discussions about a new law on professional practice with consequences for the system of professional titles.

It seemed logical to link the re-registration process to the already existing mechanisms for the registration of specialists. After initial initiatives taken by the SRC and the HRC (Registration Committee for General Practitioners who developed a separate training programme for GPs since 1974) the KNMG issued in 1990 a report on re-registration in which an integrated model for re-registration was proposed (HAALSTRA AND KLAZINGA, 1990). The model builds on the *trias politica* model already existing for specialist training. It advises to start the implementation with the use of quantitative criteria; for example, a surgeon can stay in the register if during the last 5 years he/she has at least practised surgery two days a week. These quantitative criteria should be developed further into qualitative criteria that should be based on the quality management mechanisms for professional performance such as the peer review programmes, visitation programmes for non-teaching hospitals and continuous medical education. In 1992 the SRC has made a start with the re-registration of medical specialists. Although the logistics of these activities still cause problems (how to control practice performance of more than 12,000 specialists), and criteria for re-registration are still under development, the policy decisions to implement this new mechanism for quality management have been taken (DE LANGE AND DE HOOG, 1995, LSV 1995:29-32). Initially the introduction of reregistration met a lot of criticism among medical specialists. They were confronted with additional costs for an 'administrative procedure', and retired specialists opposed the loss of their official title. Notwithstanding this criticism the reregistration has been introduced.

In 1994 a new law on professional practice was endorsed by the Dutch Parliament (BIG, *Wet op de Beroepen in de Individuele Gezondheidszorg*). This law provided legal enforcement for the system of re-registration as set up by the medical profession; article 14 provides legal protection for titles existing in the SRC register and article 15 mentions the need for a mechanism for re-registration.

The KNMG presented the introduction of re-registration as one of the mechanisms the medical profession is creating to assure the quality of medical practice as asked for by the other parties in the health-care field during the two national conferences on quality assurance in health care in The Netherlands held in 1989 and 1990. Thus re-registration was used externally as an instrument for accountability and internally as an instrument to strengthen the grip of the KNMG on the quality of medical practice (again similarities exist with the way the hospital association deals with the debate on certification). It provided the profession with a formal mechanism to promote other quality-management activities such as CME and peer review and provided the KNMG with a frame towards which quality policies of the LSV and scientific societies should adhere.

4.2.7 *Motives behind the present system of re-registration for medical specialists*

An analysis of the development of re-registration as a mechanism for quality management reveals the following:

WHY — As with the introduction of a register in 1931 the motives for starting a re-registration are linked to the development of the medical profession and the protection of professional autonomy. On the one hand a re-registration system provides the profession with a tool to control the quality of practice performance, on the other hand it helps the profession to keep its independent position which has both economic and political implications. Since 1987 changes in the health-care system go into the direction, at least in discussions, of a more market-oriented system in which a medical title becomes even more important as an economic entity, but it is also essential that both financiers and patients have trust in the title as a condition for maintaining professional independence. Thus a mixture of idealistic (good medicine) and pragmatic (keeping of an independent position) reasons facilitate the acceptance of re-registration as a mechanism for quality management. Transformations in clinical, as well as economic and political autonomy, ask for a strategy of professional organisations in which the development of re-registration as a quality system serves internal as well as external professional purposes.

4.2.8 *The re-registration system as a quality system*

'WHAT' — Criteria for re-registration are linked to the amount of time spent in practice and involvement in quality assurance mechanisms. This implies that the quality of individual practitioners is only indirectly assessed. As will be discussed elsewhere (4.4.6, 4.5.5) the existing quality assurance mechanisms are mainly focused on medical effectiveness. In the discussions at the national conferences on quality

policy in 1989 and 1990 (3.7.4) and afterwards during discussions in the National Council for Public Health (NRV), it became evident that financiers and consumers also want to stress efficiency and patient satisfaction as important aspects of quality. Their judgement on the reliability of re-registration as an instrument for quality management will thus also be based on the fact that the medical profession will be able to account for the extent in which they include these notions in their quality system. The near future, when quality paragraphs will be included in the contracts between specialists and financiers, will make clear to what extent especially the financiers will rely on the title when making a contract or want to include additional arrangements on the appropriateness of the medical practice (with the introduction of additional control mechanisms as a consequence).

'HOW' — The re-registration uses the already existing infrastructure for registration of medical specialists. There is a fundamental difference, however, in judging if residents meet training requirements and specialists and hospitals meet the requirements for educators or teaching facilities, and controlling if the practice performance of an individual specialist meets the criteria for re-registration. A system designed to assure the quality of training can-not just be expanded to assure the quality of professional practice.

Special attention is needed for the establishment of links between the re-registration mechanism and other professional quality-management activities such as peer review (initiated by the LSV since 1976), continuous medical education (provided by a large number of organisations and for several specialties co-ordinated within the scientific societies), national guidelines for good clinical practice (i.e. as developed through the CBO consensus development programme since 1982) visitation initiatives for the medical staff as a whole (as conducted by the LSV in a pilot phase in 1990) and visitation initiatives of non-teaching hospitals (as taken up by several scientific associations since 1991).

The linking of these activities to each other is discussed elsewhere in this chapter (4.1, 4.6). Crucial elements appear to be:

- the linking of re-registration to other quality-management activities within the profession in such a way that it is acceptable for the majority of rank and file physicians;
- achieving sufficient credibility for the re-registration programme among financiers, patients and government.

The system of specialty training and the system for (re)registration can both be considered as quality systems that assure a minimal level of quality of medical specialist care. As systems they are both of an explicit evaluative nature with criteria and a structured evaluation procedure, in that sense they resemble the theoretical definition of a 'quality system'. However, they are only indirectly related to the actual

production process of medical specialist care. The registration system bears similarities with the concept of product certification in industry. The re-registration is more comparable with process and system certification. Although the words 'registration' and 're-registration' seem similar, the concepts and methods behind it differ greatly and a better synchronisation seems necessary.

Training and re-registration are the generic instruments the profession has developed to assure that specialists are in principle competent for delivering specialist care. Additional mechanisms are needed to assure the quality of the medical performance in practice on a day-to-day basis.

4.3 QUALITY MANAGEMENT OF SPECIALISTS CARE THROUGH DISCIPLINARY LAW: A CLASSICAL INSTRUMENT FOR THE PREVENTION OF INCOMPETENT MEDICAL PRACTICE SET UP BY THE STATE AND THE MEDICAL PROFESSION (KNMG)

With the introduction of the Act on the Practice of Medicine (*Wet op de Uitoefening der Geneeskunst*) in 1865 the practice of medicine was restricted to those persons that had fulfilled the training requirements. It enforced the position of medicine as an academic science. Apart from formalising this professional monopoly it was recognised that mechanisms should be created to assure proper practice by qualified doctors. This should be done to prevent that the professionalism as anchored in national laws should be jeopardised. One such mechanism was set up by the profession itself, the by-laws of the medical association. Within the (K)NMG, members could complain about each other and a regionalised structure of district councils would deal with the complaints and give a verdict (since 1903). Their judgements are based on the behavioural rules (professional codes) of the medical association (*gedragsregels voor artsen*) and peer-opinion. Although this system of internal bylaws is used less frequently (in 1988 the KNMG decided that patient complaints should solely be dealt with through the *tuchtrechtsysteem*) parts of it still exist, including district councils and a court of appeal mainly dealing with conflicts between physicians.

Another mechanism was provided by *tuchtrecht*, a system of disciplinary law developed in collaboration between medical profession and government of which the roots can be found in the Act on Professional Practice of 1865 and which has a specific legal basis in the Act on Medical Discipline (*Medische Tuchtwet*) since 1928. By its nature and procedures this *tuchtrecht* can be better characterised as an instrument for the development of professional norms, and thus for quality management, rather than as a repressive system for the punishment of a suspect (as in criminal law) or the satisfaction of a patient (as in civil law). *Tuchtrecht* in The Netherlands has formally been set

up by government and can thus be characterised as a form of public law. However, the medical profession is heavily involved in the process, not in the least because professional norms (such as the behavioural rules of the KNMG) are considered the basis of the judgement procedures. A first version of these (K)NMG rules on professional conduct appeared in 1936 and in 1994 the most recent version was issued.

Every citizen is free to submit a complaint against a physician at a disciplinary council (*tuchtcollege*). Sometimes the inspector of health submits a complaint, either on his own account or acting on behalf of a patient. The central norm in the judgement procedures of the disciplinary council is the undermining of the trust put in the medical profession. Thus this central norm relates directly to the authority of the profession and the autonomy granted to the profession by society.

In 1995, after twenty years of discussion, a new law on the professions in health care (BIG, *Wet op de beroepen individuele gezondheidszorg*) passed Parliament. This law no longer restricts the practice of medicine to physicians, but protects the professional title: a person who does not have the necessary qualifications is not allowed to call himself a physician or nurse. The law puts the protection of titles as the central issue in the construction of the law, together with a listing of *voorbehouden handelingen* (acts that may only be performed by a specific profession). This new law, apart from introducing disciplinary law for other professions, reformulates the central norm for *tuchtrecht* as follows:

> *"Any action taken or not taken that is conflicting with the care that a person holding a specific title as mentioned in this law should have provided to a patient."*

This is a rather general norm, so much room is left to the judge for further interpretation. The judge of a disciplinary council is always a barrister, some of the members are physicians. A balance is sought in the composition of the college between the professional input and the legal input. The different sources the judge can use to base his judgement on, are the behavioural rules for doctors from the KNMG, professional codes, other laws and history of law, jurisprudence, scientific literature, consensus guidelines and expert opinion. The judge has several sanctions he can use ranging from a warning, rebuke, fines ranging to a maximum of 10,000 guilders, suspension from the practice of medicine up to one year, or withdrawal of the right to practise medicine (for life) (KASTELEIN 1992, SANDERS 1967, KNMG 1994). Reflections on *tuchtrecht* as an instrument for Quality Management of specialists care lead to the following analysis.

4.3.1 Motives behind the present system of title protection and disciplinary law for medical specialists

'WHY' — *Tuchtrecht* creates a mechanism to deal with perceived medical incompetence that is unacceptable to both society and the medical profession. The latter also

because it undermines the credibility of the profession. It constitutes a kind of 'buffer' between procedures for complaint handling and accident review within hospitals and professional groups on the one hand and the civil and criminal law system on the other. Although there is criticism on the *tuchtrechtsysteem* now and then, stating that it is too much a closed shop and does not take into account the patient opinions properly, it is considered to constitute an important tool against further juridicalisation of Dutch medicine. Compared to countries such as the USA the number of legal procedures patients start against doctors and hospitals is limited. *Tuchtrecht* is one of the mechanisms that works as an interface between patient expectations and physicians performance. Although its limitations are evident, as an instrument for quality management it should not be abandoned. The recently approved BIG law demonstrates that this feeling is shared by the medical profession and government alike.

4.3.2 *The nature of disciplinary law seen from a quality-management perspective*

'WHAT' — As explained above, the professional norm more or less poses the central norm in the law-speaking process in *tuchtrecht*. Although the focus on medical effectiveness is understandably looking at the history of *tuchtrecht*, it also becomes evident that this medical orientation on the central norm limits the possibilities of *tuchtrecht* to mediate between patient expectations and physician performance (KASTELEIN, 1992). There is, however, a gradual shift in focus noticeable. The behavioural rules of the KNMG are no longer solely rules reflecting the ways physicians should behave themselves towards each other, but also have started to reflect since the eighties notions on the way the doctor-patient relation should be perceived. In 1988 KNMG and LPCP (National Platform for Patients and Consumers Organisations) reached an agreement on a patient/doctor contract describing the mutual rights and responsibilities (KNMG/NPCF 1988). This contract can now be used by the judge of a disciplinary council to evaluate if doctor-patient contacts are in accordance with the norms parties agreed upon on a national level. Thus the quality focus of *tuchtrecht* is broadening from the professional technical towards the professional organisational and professional attitude aspects. Parallel to this development new legislation that strengthens the position of the patient in the health-care system has been discussed and endorsed by Parliament, notably the Act on the Patient/Physician Contract (WGBO, *Wet op de Geneeskundige Behandelovereenkomst* 1995). The quality of professional performance has as a concept replaced the credibility of the profession as a core element of disciplinary law.

'HOW' — Although the number of *tuchtrecht* cases is gradually growing, several authors (KASTELEIN 1992, LEENEN 1993) still perceive the threshold for patients to start a procedure as too high and the process too profession-focused. Part of this perception is

also created by the problems that can be summarised with the words 'patients right on information' and 'professional secrecy'. It would go too far to discuss those interconnected problems here in detail. However, better legislation on patient rights and regulations to provide information to patients, together with the improvement of patient complaint handling would improve the situation. These notions can also be traced in the WGBO. Given the experience of the inspectorate of health that the majority of complaints have to do with lack of communication between doctor and patients, attempts to improve this communication and create easy and accessible mechanisms for complaint handling close to the doctor and patient both in location and in time, will be a better approach towards further improvement of quality management than procedural discussions about *tuchtrecht*. The criticism on *tuchtrecht* should therefore be interpreted by medical associations as an incentive to improve patient/doctor communication and broaden the quality scope to other aspects than medical effectiveness alone.

The system of disciplinary law is a quality system in the sense that it is of an evaluative nature and uses formalised criteria. Like training and re-registration it is only indirectly linked to the production process of medical care and can rather be considered as a precondition that tries to address insufficient care delivery once it is delivered. The legal title protection is of a preventive nature and must assure that the public can have trust in the fact that someone who calls himself a surgeon has the proper qualifications. The system of disciplinary law is both preventive and curative and should indeed address cases where the quality of care provided is seriously questioned.

4.4 QUALITY MANAGEMENT OF SPECIALIST CARE: ACTIVITIES OF SCIENTIFIC SOCIETIES

In chapter 3 and in this chapter (4.1, 4.2) the importance of scientific societies in the development of the various medical specialties has already been expressed and explained in the context of the development of medical specialist care. Whenever during the past century a scientific society was founded its development seems to have gone along the following similar lines:

- establishment of a group of specialists that exchange their work experiences and hold scientific meetings where new developments in their field of interest are discussed;
- development of a separate training programme; submission of proposals to the *Centraal College* and convincing other specialties that the new activities will be an addition to the field of specialised medicine and will not cause competition;
- achieving economic independence by creating fees for the specific activities performed in the field of the new specialty and/or since, the seventies, trying to

achieve recognition as a separate recognised medical specialist service in the planning procedures and planning parameters of government.

All scientific societies operate in two directions: towards the individual members and, as a group, towards all outsiders and quality management is used in both ways.

Thus quality management was intertwined with achieving professional recognition, and obtaining clinical, economic and political autonomy. Although each specialty has its own way of developing mechanisms for quality management the following type of activities can be identified:

- formulation of training requirements
- introduction of theoretical education in the training programme
- activities related to continuous medical education
- scientific meetings
- development of practice guidelines
- standardisation of information, development of classification systems and registries
- audit within the association on specific topics
- visitation of teaching hospitals
- visitation of non-teaching hospitals
- further specialisation
- job descriptions/specialist profiles
- production of information materials (for patients and/or other doctors)

Although the order of the development is not strict, and also seems to depend on trends in popularity of different activities in different periods, a general rule seems to be that quality-management activities towards professional practice are only taken up seriously once specialty training and a system for CME have been established.

To provide an overview of the different type of activities related to quality management that have been developed by the different specialty associations and societies a brief inventory will be given of activities that were reported during a series of interviews by CBO in 1988-1989 (CASPARIE, VAN EVERDINGEN, TOUW, 1989), a series of publications on quality and the scientific societies in *Medisch Contact* in the period 1988-90 (table 1, page 138), two reports of meetings of board members of scientific societies with the secretary of state in 1993 (WVC *in gesprek*, 1993 AND 1994) and a report published by the Dutch Specialist Association in 1995 (LSV 1995).

4.4.1 *Quality-management activities of scientific societies as reported during interviews with* CBO *staff in 1988-1989*

Between April 1988 and April 1989, CBO staff on initiative of its medical scientific council, where all scientific societies are represented, had meetings with the boards of 32 scientific societies corresponding with the recognised different specialties and other disciplines (like clinical/chemists, hospital pharmacists and clinical psychologists) that

are represented in medical staffs of hospitals. As a result of these meetings an inventory was made of existing quality-management activities (CASPARIE, VAN EVERDINGEN, TOUW, 1989). It showed that at that time 14 out of 32 societies had a special committee for quality assurance and several had specific by-laws for these committees.

These 14 included a few major surgical and internal specialties and almost all supportive specialties and related hospital professions such as anaesthesiology, pathology, clinical chemistry, laboratory medicine, nuclear medicine, radiodiagnostics, hospital pharmacy and clinical psychology. Half of the scientific associations had a formalised structure for continuous medical education. Several societies had introduced national courses as part of the specialist training programme, among them surgery, pathology, internal medicine, dermatology and anaesthesiology. Most societies developed protocols and guidelines or participated in national consensus conferences. Only a limited number of societies had made guidelines that were officially endorsed by its board. Several societies had taken initiatives to standardise information; some examples are national databases on specific diseases, procedures or treatments initiated by the Dutch Association of Obstetricians and Gynaecologists, the Dutch Association of Rheumatologists, the Dutch Society for Pathology (PALGA since 1971), the Dutch Society for Orthopaedics, and the section Perinatology of the Dutch Society for Paediatrics (registration of neonatal care). Continuous, formalised audit programmes existed for clinical chemistry (hospital laboratories) and clinical pharmacy (hospital pharmacy). Problem-based audit was performed irregularly by different societies (for example audit of maternal-death cases within the society of obstetrics and gynaecology). A few societies had started initiatives for visitation of non-teaching hospitals; examples are anaesthesiology, surgery, nuclear medicine, orthopaedic surgery, and pathology.

4.4.2 *Quality-management activities reported by scientific societies in* Medisch Contact *in 1988-1990*

Parallel to the initiative of CBO, in the period 1988-1990 different scientific societies were asked by the journal *Medisch Contact* to write an article on the quality assurance activities of their organisation. A total of fifteen societies answered to this request and published articles (seven out of the fourteen that had a quality committee as reported in 4.4.1) (table 1, page 138, lists the various articles).
The texts were reviewed on the mentioning of specific quality-management activities or arguments for their development. The attention given to a certain point was not taken into account: a point was either raised or not raised. This makes the analysis subjective with respect to the recognition of arguments and more objective to the recognition of factual reporting.

Different reasons where given in the texts why quality assurance was important. In nine out of fifteen articles the importance of quality assurance as a professional respon-

sibility was mentioned, eleven times a relation with the cost of health care was expressed and only four articles stated explicit that quality management was also done because of reasons of accountability of the profession. The quality concept used in all articles is very technically oriented. The organisational aspect of quality is noticeable in nine articles, but the professional attitude as an aspect of professional quality is only mentioned two times.

This analysis confirms the impression that at that moment quality assurance is perceived as an act of professionalism, linked to economic independence and to a lesser extent to social accountability and that quality is mainly perceived from an technical and organisational perspective and is not directly associated with the professional attitude.

Practically all societies mention activities in the field of specialty training, CME, and scientific meetings in relation to quality-management activities. The developing of guidelines on medical practice, usually associated with new scientific developments is mentioned eight times.

Apart from the already mentioned activities, in which the further development of medical knowledge plays a central role, additional activities to manage the quality of specialist care are mentioned: six times the standardisation of information, seven times specific audit activities, four times visitation programmes for non-teaching hospitals, two times further specialisation within a specialty and four times specific actions to inform the public.

This analysis reflects the growing interest in quality management expressing itself in a series of activities that are similar for different scientific societies. The analysis also shows that 'medical effectiveness' is considered as the most important dimension of quality although organisational aspects seem also to be closely associated with quality-management activities.

4.4.3 *Quality-management activities reported by scientific societies during meetings with the Secretary of State for Health Care in 1993*

In succession to the CBO inventory in 1988, and the series of articles published in 1988-1990, in 1993 the then Secretary of State for Health, Mr. H. Simons, took the initiative for a series of meetings with scientific societies. The meetings were held as part of the overall government policy on quality of care (policy report in 1990, action programme in 1990-93 and a draft law on quality of care in health-care institutions submitted to Parliament in 1992, see 3.7.4). Although the focus was on quality issues, the meetings were held in the context of major debate on the future financing of specialist care. A two-volume report of the 28 meetings was presented by the secretary of state to the chairmen of KNMG and LSV during the annual meeting of the KNMG November 1993 (WVC, *In gesprek* I, II).

An analysis of the report shows that the most frequently mentioned activities in relation to the quality policy of the respective scientific societies were visitation of partnerships in non-teaching hospitals (21 societies), activities related to continuous medical education (17 societies) and practice guidelines (14 societies). All societies seemed to have a committee for quality and several mentioned the obligatory nature of quality-management activities and the foreseen relation with re-registration. Compared with the earlier reports there seems to be a substantial progression in the variety and amount of quality-management activities. In the report of 1993 the Ministry concludes that:

> *"Quality has traditionally been an important topic for the scientific societies. In general, quality-management activities are of a 'classical' nature such as improvement of specialty training and activities related to continuous medical education. The development of quality systems, including the notion of accountability towards others, is of a more recent date and is in general still in its infancy. Such a development is a gradual process that asks for a change in mentality and will take time."*
> (WVC, 1993:59).

In the same report the Ministry concludes that:

> *"Although many societies consider themselves as the fore-runner with respect to quality management, there is little co-ordination between the activities of the respective societies."*
> (WVC 1993:60)

This is an appeal in the direction of the divided medical specialists profession to combine efforts.

4.4.4 *Quality-management activities by scientific societies as reported in a common report of the scientific societies and the Specialists' Association* (LSV) *in 1995*

In 1995 the LSV and the 29 scientific societies of specialties that have a register at the SRC respond to this government appeal with a book of 280 pages entitled *Quality Policy Medical Specialists 1995* (*Kwaliteitsbeleid Medische Specialisten 1995*). This book provides an extensive overview of the existing policies of the LSV related to the existing infrastructure, policy documents, specialty training, re-registration, continuous medical education, peer review, practice guidelines, visitation (of the whole medical staff and of partnerships in non-teaching hospitals), and policy plans for the near future. Compared with the earlier inventories the tendency to stress activities related to CME, re-registration, practice guidelines and visitation of non-teaching hospitals is again enforced. All 29 scientific societies report to have CME activities, 6 have an 'accreditation system' for CME in their specialty in place and 12 are preparing such

a system (i.e. usually a committee within the scientific society that assesses courses that are offered to specialists and assigns official approval by the society). Four societies are also using a 'certification system' for CME, meaning that members have to obtain a minimum number of 'credit points' for accredited CME activities every year. Ten societies report that such a certification system related to CME is in preparation. A long list of officially endorsed guidelines per society is presented, among these the CBO consensus guidelines (see chapter 7). A total of 23 societies reports that they have a programme for visitation of partnerships in non-teaching hospitals in place and the others are preparing a programme. These visitation programmes resemble the methodology of the accreditation procedure for hospitals in the USA but they are organised within the scientific society and focus on the functioning of partnerships of their specialty in hospitals that are not visited as part of the visitation programme for teaching hospitals (4.2.4) This popularity of visitation as an instrument for quality management is consistent with other publications (LOMBARTS 1994, MERKUS 1995, KOOMEN 1993).

Contrary to the focus of Royal Colleges in the UK on audit activities (SHAW 1992, AMESS ET AL. 1995), the terms 'audit' and 'peer review' are hardly mentioned in the LSV report. The mentioning of peer review is limited to a two page text referring to the national peer-review programme that will be described in the following paragraph. What is mentioned, however, is the importance of morbidity and mortality meetings and complication registration. A total of 66 specific registries (specific registration of medical data on for instance complications or procedures) is listed. These registries can all be used for evaluative activities within the scope of respective scientific societies.

Although the political function of the book seems evident and thus one must be aware that the presented picture is flattered in some way, the mentioned concrete activities demonstrate that a wide variety of initiatives has been taken.

4.4.5 *Reasons behind the development of quality-management activities by scientific societies*

'WHY' — For scientific societies the motives to start with quality-management activities can be found in the development of the specialties. After a period of focus on the creation of a system of specialty training and voluntary CME, attention over the past ten years seems to shift in the direction of practice guidelines, formalisation of CME and visitation of partnerships in non-teaching hospitals. Part of the dynamics can be explained as the natural tendency of a specialty to assure its own knowledge domain and professional autonomy. However, the present activities seem also to a large extent shaped by the role of the KNMG and LSV on the one hand and the other actors in the health-care field outside the medical profession on the other. With the introduction of the obligation for re-registration and its grip on the infrastructure of

the specialty training, the KNMG has modelled the debate on quality in the scientific societies. The present interest in the accreditation and certification of CME activities is nurtured by the KNMG policies on re-registration; credit points are a practical operationalisation of criteria for re-registration. On the other hand the balance of power between LSV and scientific societies has modelled the activities. As described in chapter 3, the LSV is going through a difficult period while trying to keep peace between the different specialties while at the same time negotiating with government on the decrease of financial means for medical specialist care and the position of the specialist in the hospital. While as a result of the cost containment policies the economic autonomy of the whole group of specialists was threatened, the representative power of the LSV decreased and seems to have been substituted by a growing 'trade-union profile' of the respective scientific societies. Thus the policies of the LSV on quality of care, that take the infrastructure of the medical staff as the starting point (peer review, visitation of the medical staff), seem to have been less dominant during the past ten years than the policies of the scientific societies. The 1995 book of the LSV should therefore not only be perceived as a response to the external pressure of the government, but above all as an attempt to reunite the scientific societies under the 'umbrella' of the LSV. An important part of the book deals with the infrastructure for quality policy and the concrete plans for the coming years. This infrastructure is built on the quality committees of the different scientific societies that are united in a 'platform for Quality'. This platform functions under the aegis of the LSV. At the same time the LSV has its own committee on quality of care with sub-committees on visitation, CME and mortality, morbidity and registrations. After a period of open conflicts between scientific societies, LSV and newly founded specialist associations like the NSF and NSG, this new infrastructure seeks a balance between the different involvement of the parties in quality management. In summary: the external pressure has resulted in inter-professional dynamics that, after a period of manifest conflict, is now seeking for a new balance, affirmed with an infrastructure for quality management of specialist care that favours the formalisation of CME in relation to re-registration, guideline development and visitation of partnerships in non-teaching hospitals. In an era where health care is sensitive for industrial jargon like accreditation, certification and flowcharts/protocols, it is not surprising that on the basis of the already existing visitation programme for teaching hospitals, ad-hoc CME activities and protocols in medicine, the new core quality-management activities emerged.

4.4.6 The nature of quality-management activities of scientific societies

'WHAT' — In all three type of activities mentioned (i.e. CME, guidelines, visitation) the technical focus on quality is still predominant. However, in recent policy papers notions on the organisation of specialist care and the attitude of specialists get more

and more emphasis. This broadening of scope is especially noticeable in the activities of the LSV, that has become involved in, among others, policy discussions with hospital directors and the patient consumer organisations. Policy documents have been issued on management participation in 1991, 1993 and 1995 and activities to inform patients have been set up by a Foundation on Patient Education initiated by the LSV in 1986. Some examples exist of scientific societies that have regular discussions and common activities with patient organisations (for example the Society on Paediatrics and the Society on Obstetrics and Gynaecology) and sometimes patient organisations are involved in the formulation of practice guidelines (see chapter 7). However, these aspects are not at the core of the quality notion that is at present guarded through the quality-management activities of the scientific societies. Notions of evidence based medicine, reduction of practice variation and effective professional practice are dominant in the operationalisations of quality management.

'HOW' — The gradual development of quality-management activities in scientific societies seems to thrive on the enthusiastic work of a small group of individual members. An analysis of the existing policy documents and publications shows that the same names appear again and again. For guideline development and visitation of non-teaching hospitals many scientific societies rely on the support of CBO. For the CME activities and policy development most societies have created a small secretariat. During the past two years, as part of the overall negotiations on the financing of specialist care, government has promised a financial contribution for the development of quality-management activities for medical specialists. A total amount of two million guilders over three years has been mentioned but it is unclear how the actual allocation of this amount over the LSV and scientific societies will take place. It is interesting to note that in the same period 1989-94 in the UK the NHS has allocated explicit resources for quality management among medical specialists: a total amount of 5.9 million pounds to the eleven medical Royal Colleges and their faculties in England for audit activities. Apart from the financing of CBO, most of the developed activities in The Netherlands have been financed through the membership contributions of societies and associations. As debated earlier, by choosing visitation, guidelines, and the formalisation of CME in relation to re-registration as the core themes, the scientific societies seem to have made a choice that strengthens their clinical autonomy as well as their political and economic autonomy in relation to other professional organisations and the external actors in the health-care field. From an innovation perspective they selected the elements that meet the demands of compatibility, level of complexity, trainability and observability and that at the same time will be perceived by specialists as the natural extension of the development of medicine, and thus as an improvement compared with the existing situation. Although the roots for guideline development and formalisation of CME can be found far earlier among individual innovators, by making it a core issue of policy-making since the second half of the eighties, the movement was carried by the opinion leaders in

the societies. This probably explains that, although their is opposition against all three phenomena, the diffusion has not stopped. Internal drive and outside professional and health-care system dynamics were merged and should be considered as the explanatory factors for the rather rapid diffusion of formalisation of CME, practice guidelines and, especially, the programmes for visitation of partnerships in non-teaching hospitals.

4.5 QUALITY MANAGEMENT OF SPECIALIST CARE: A NATIONAL PROGRAMME FOR PEER REVIEW AMONG SPECIALISTS IN HOSPITALS INITIATED BY THE LSV IN RESPONSE TO EXTERNAL PRESSURE

The roots of the present national programme for peer review among medical specialists in hospitals as supported by CBO[10] can be found in the discussions about medical staff development in the fifties. As was introduced in chapter 3 and will be discussed in more detail in chapter 5, the organisational format of medical staff in Dutch hospitals is a pre requisite for many of the activities now going on in the realm of quality management. This is also true for the introduction of *intercollegiale toetsing* (peer review) among medical specialists.

4.5.1 The introduction of peer review in Dutch hospitals in the sixties and seventies

It is in 1962 during a seminar organised by the Dutch Specialist Association on medical staff development in hospitals, that Burkens (a specialist in internal medicine and hospital director) introduces the term *intercollegiale toetsing* in a presentation in which he discusses the activities in the USA under the denominator of medical audit. The fact that the concept of peer review (*intercollegiale toetsing*) has emerged in a period in which medical specialists and hospital directors were discussing the future structure of the staff organisation and peer review was discussed in the setting of their corporate bodies (LSV and GVBZ), has without doubt contributed greatly to the acceptance and format of peer review among specialists in Dutch hospitals in the seventies. Although these ideas emerged in the early sixties, it lasted till 1976 till a more systematic plan on the methodology and introduction of peer review in hospitals was composed. Initially the interest of the LSV was focused on the introduction of formal bylaws for functioning of the medical staff (1960), the introduction of autopsy meetings in all hospitals (see chapter 5) and the foundation in 1963 of the

[10]CBO, *an acronym, stands for* Centraal Begeleidingsorgaan voor de intercollegiale toetsing, *literally meaning 'the central support organisation for peer review'.*

SMR (*Stichting Medische Registratie,* Foundation for Medical Registration; since 1976: SIG, Foundation for Information in Health Care). In 1970 a study group of the SMR went to the USA to study the American model of medical audit and concludes that this model is probably too data-driven and extensive, a model restricted to the audit of a limited number of frequently used diagnostics and disease categories would be more appropriate for the Dutch situation (FOKKENS, 1971).

At the same time the KNMG has installed in 1970 a committee on *intercollegiale toetsing,* partly as a reaction on the report of a government committee on general practitioners (at that time going through an active process of professional development resulting in a special training programme for GPs off 1973). This KNMG report should address the existing criticism on the quality of the physicians but the conclusions in 1971 are rather meagre: The majority of the Dutch physicians functions well and the small minority that is dysfunctioning will not be sensitive to corrective measures (KNMG ANNUAL REPORT 1971).

In the early seventies medical staffs became more and more of a closed nature and part of the discussions on the necessary bylaws of medical staffs were settled (see also chapter 5). A small number of hospitals, where medical staffs had been established, started to experiment with peer review, among them the De Weezenlanden Hospital in Zwolle and the De Wever Hospital in Heerlen.

In 1973 a one-day conference on medical audit was organised by De Weezenlanden Hospital in Zwolle, celebrating the 75th anniversary of the hospital (PROCEEDINGS CONFERENCE ON MEDICAL AUDIT 1973). During this day, and in several articles appearing in *Medisch Contact,* one of the central issues was the question whether the Dutch version of peer review should be external (Filippo, Casparie) or internal, within the medical staff, (Planten, Burkens). During the preparation of this conference the LSV installs a working party on *intercollegiale toetsing* to advise on the desirable methodology and organisation of peer review for Dutch specialists. The decision by the LSV to work in this direction was without doubt nurtured by the already existing interest in audit and peer review, but was also a logical step in the process of staff-development in hospitals. It also seemed a right instrument to obtain control over the whole profession of medical specialists by the LSV in a period where the number of members of their association was already declining.

There were also strong external incentives that speeded up the development of a concrete plan for peer review, specifically in 1973. At the beginning of the seventies there was a growing general criticism on the functioning of medicine (ILLICH 1975, ZOLA 1973, MCKEOWN 1976) and especially the patients and politicians asked for more explicit forms of medical accountability. In 1971 a governmental advisory committee (Van Leeuwen Committee) proposes to change the fee for service payment into a salaried position for all medical specialists, a discussion that is still relevant in 1996. In 1972 the sick funds start a project to assemble data on specialist production (LISZ) that can be

used for planning purposes; the plan is criticised by the LSV who stresses the difference with the goals of the SMR. In 1973 government starts with hospital planning, developing norms that limit the number of specialists that are allowed to practice in a certain hospital. And on top of that in 1974 the Secretary of State for Health, Mr. J. Hendriks, proposes a new law on medical insurance that contains plans for the development of external audit of the functioning of specialists, executed by regional social insurers. These developments pose serious threats to the professional autonomy of medical specialists.

4.5.2 *The policy report on peer review in general hospitals issued in 1976: common goals and a standardised methodology*

In 1973 the LSV issues an interim report on peer review that explains its merits and reports that a survey among medical staffs has shown that already 48 hospitals have some form of active peer review (Simons report). In 1976 the LSV together with the Association of Medical Hospital Directors (*Geneeskundige Vereniging tot Bevordering van het Ziekenhuiswezen,* GVBZ) issues the report *Peer review in General Hospitals* (*Intercollegiale toetsing in algemene ziekenhuizen*), which provides the basis of the present activities (LSV 1976). Some of the guiding principles for peer review, as formulated in the report, are the following:

- *"Evaluation arises from the obligation of the physician versus his patient, himself, his colleagues with whom he works, the hospital and society, to deliver care of good quality."*
- *"The main aim of evaluation is improvement of quality. An all too strict differentiation between effectiveness and efficiency of medical interventions is not wholly desirable."*
- *"Evaluation does not mean medical jurisdiction of assessors over assessees. It is primarily an educative process."*
- *"The aim of evaluation is that a specialist, or specialists within the framework of a hospital staff, are offered greater insight into the quality of his or their medical activities."*
- *"For a meaningful evaluation of medical care a thorough professional medical knowledge and sound experience in medical practice are essential. This makes the actual evaluation a specific task for the medical profession. If, however, the medical profession would fall short in the execution of this task, the management of a hospital or the Public Health Inspectorate would become involved."*
- *"On the basis of his own expertise and his specific responsibility, participation in the evaluation process by the medical director is strongly recommended."*

- *"The patient must be the central focus of health care. This means that as part of the evaluation procedure it should also be investigated if the actions were in accordance with this criterion."*

Based on these guiding principles the report describes a methodology for peer review that can be characterised by the following key features: problem based, cyclic activity (systematic and using explicit criteria), organised within the context of the medical staff and voluntary participation.

- By choosing a problem-based approach the committee that prepared the report stressed the fact that physicians will only be willing to learn on issues they consider relevant for learning (a principle that is consistent with the adult-learning theory). Thus the satisfaction of the specialists with the evaluative activities would probably be greater. It is interesting to observe that this 'problem based approach' of peer review appears at the same time that problem-based medical education becomes popular; in 1974 the problem-based medical curriculum at the University of Limburg in Maastricht takes a start. The problem-based methodology seems to appeal to medical educators and developers of the training programme for general practice (VAN HERK, RUNIA 1991) as well as to the developers of the peer-review programme. Ideas about a 'problem-based record' (WEED 1969) underscore this notion that patient care should be patient problem focused and not primarily oriented towards disease categories.
- The cyclic approach of peer review is not only consistent with clinical reasoning but also with all methodologies on quality management, stressing the need for problem identification and analysis, criteria development, measurement of practice, feedback/change and re-evaluation such as the PDCA method (PLAN-DO-CHECK ACT; SHEWHART 1931, DEMING 1982). This basic methodology has later on been refined for the Dutch peer-review programme for medical specialists (CBO NIEUWSBRIEF 80/86) but in essence has stayed the same.
- Establishing the peer-review committee within the context of the developing medical staff was a logical consequence of the context of the development of ideas about peer review as described above.
- The voluntary nature of the activities was stressed to emphasise the professional responsibility of the specialist. However, although formal legislation was not asked for, the peer-pressure to participate in the activities was and is substantial.

4.5.3 *The institutionalisation of peer review through a national programme and the foundation of* CBO

The issuing of the report in 1976 results in further discussion on the necessity of peer review that also includes other groups apart from specialists and hospital directors, such as the health insurers and government. The work of the committee is all the time

strongly linked to the plans of government to proceed to introduce a Health Insurance Act that would make audit of medical care by a committee outside the hospital mandatory (VAN HERK, KLAZINGA ET AL. 1995). The chairman of the LSV states it at the annual meeting as follows:

> *"Influence and even pressure from the outside world has surely played a role in the writing of this report, but I think that with this report we demonstrate not only to persist this pressure, but we also provide an adequate and modern answer to hospital management, financiers en government who will recognise our expertise."*
> (SIMONS, 1976)

In the meantime the plans for a new health insurance scheme are withdrawn, there is not sufficient political support but also the economic situation since the oil crises of 1973 inhibits the introduction of a costly insurance plan. Eventually all parties, including the government, accept the LSV plan as a good model for a national programme for peer review among specialists and peer review is considered as a domain for self-regulation by the medical profession. The discussion results in 1979 in the foundation of CBO. The wish to establish such a national organisation was already expressed in the report in 1976. It was evident that without some form of support it would be difficult to spread the gospel (REERINK, 1990), the old wish of the specialist association to have a 'research institute' (VAN NIEUWENHUIZEN 1958) may also have played a role in promoting the idea. The structure of CBO represents the consensus model of Dutch health politics in the seventies; CBO is a non-profit foundation, the board of trustees has representatives from corporate bodies of specialists, doctors, hospital directors insurers and an observer from government. Patients, not being an official party at that time, are not represented. Financing is embedded in the then newly established legislation on hospital rates (*Wet Tarieven Gezondheidszorg*) and a scientific council, with representatives from all scientific societies is put in charge of scientific advice and guidance to CBO staff.

Through consultation in hospitals, training courses, lectures and publications CBO has since 1979 tried to support the development of peer review in hospitals. The notion of peer review has gradually spread among Dutch hospitals and the total number of participating hospitals has expanded from the 3-5 in 1979 to around 80% of Dutch hospitals according to CBO's annual reports in the nineties. A formal evaluation on the impact of the programme has never been executed and a survey in 1985 demonstrates that although the majority of hospitals at that time report to have a peer review committee in place, many of these are dormant (HAMILTON-VAN HEST, 1986). An external evaluation of CBO in 1985 by a foreign visitation team results in a rather positive evaluation report on the functioning of CBO but does not quantify the extent of peer-review activities in hospitals (WILLIAMSON ET AL. 1985, 1986). Activities of CBO have increased over the years and with it its staff (3 in 1979, 15 in 1985, 35 in 1993 and 49 in 1995)

although only part of the staff is working with specialists. The five main functions of the institute are:

- technical assistance to hospitals;
- education and training;
- clearing house;
- research and development;
- providing a forum. (REERINK 1990)

These functions have expanded to other professions (peer review among nurses since 1985, and allied health professions since 1987) and other methods/programmes of quality management such as guidelines development (since 1982), visitation (since 1990), and hospital-wide quality assurance (since 1985). All these new initiatives are taken as a reaction to demands coming from within the medical profession (guidelines, visitation) or other professions, usually backed by their representative professional bodies. The programmes for nurses and allied health professions seem transient with the popularity of quality policies in general and are substantially promoted by government. Although support of peer review among specialists is still among the main targets of CBO, the board of trustees has in 1993 outlined the future functions in three areas: research and development on quality systems, technical advice and consultancy on the implementation of quality systems and development of standards and guidelines for practice. Hence, the initial function of the organisation is now embedded in a much broader set of programmes and activities to support the quality of care delivered by health professionals. This broadening process of CBO has, however, met the necessary criticism by its original founder LSV. The lines between being perceived as a 'professional agency' versus a 'government agency' are very thin.

4.5.4 *The motives behind the development of peer review as a mechanism for quality management of medical specialist care*

As in the previous paragraphs in this chapter the last part of this paragraph will consist of some reflections on the development of peer review as a mechanism for quality management of specialist care. These reflections will be on the philosophy and methodology of peer review itself as well as on the effectiveness of the strategy to introduce peer review as a national programme supported by a central support organisation. A more detailed analysis of the actual practice of peer review as reflected in peer-review studies will be provided in chapter 6.

'WHY' — Motives to start with peer review seem to be rooted in the continuous development of the profession whilst protecting professional autonomy. Peer review is perceived as a professional obligation that is both linked to the drive to control the knowledge domain of medicine and to the maintaining of professional autonomy. The fact that the discussion on peer review is linked to the debate on medical staff develop-

ment in hospitals and was supported and partly initiated by hospital management seems to have been instrumental to its acceptance by different groups and therefore for its impact (see also chapter 6). At the same time the external pressure provided by the threat of government control speeded up the process and provided the LSV with additional arguments to convince 'rank and file specialists' who would not start with peer review by themselves. Thus the acceptance of the LSV report in 1976 and the foundation of CBO in 1979 strengthened the position of the LSV towards government, financiers and hospital management as well as to the specialists who had become members of a medical staff. Furthermore, by organising the peer review programme the LSV also took the initiative for quality management of medical specialist care partly away from the KNMG and the scientific societies, although the latter were involved through he scientific council of CBO.

The similarities between the peer review methodology and methods of medical science and clinical reasoning may have appealed to specialists and the reference to existing programs in the USA has probably, especially for some specialists in the seventies, given it additional status. The negative sides of the USA approach, i.e. external audit and focus on outcome data, were not copied but replaced by a methodology based on problem-orientation and self-evaluation, consistent with educational philosophies that were in the same period introduced in a new medical faculty.

At the same time the context for the development of a national programme on peer review was favourable in the seventies. The growing demand from politicians and the public-at-large for medical accountability, based on a more critical attitude towards medicine, and the growing need for cost control, have stimulated the LSV to set up a system for peer review that would fulfil the needs for professional autonomy on clinical practice in the hospital setting on the one hand and was acceptable as a concrete act to respond to the wish for accountability on the other hand. By doing so, the LSV enforced its position as a representative organisation of specialists during a decade of government framing (1974-1987) (3.6). The traditional corporate structure of health care usurped the planning attempts and the LSV became the main negotiating partner in the economic as well as the political and clinical domain.

4.5.5 *The nature of peer review as a mechanism for quality management of medical specialist care*

'WHAT' — It is evident that medical effectiveness as a characteristic of quality plays a dominant role in the quality concept implied by peer review; good medical practice is in many cases considered as effective medical practice. However, the efficiency dimension has been there from the beginning. It is inherent to locating peer review in medical staffs, based on the notion that the specialist is part of a team and should together with others produce a common product. As expressed by Burkens:

> *"More often the right performance of one medical activity will determine the effectiveness of several others; thus introducing the notion of hospital efficiency."*
> (BURKENS, 1962)

Although patient satisfaction and social concerns do not seem to have been the core notions of quality to be assured through peer review, they are formulated in the 1976 report and the fact that government and insurers supported and were committed to the foundation of CBO in 1979, shows that the 'quality to be assured' through peer review was considered of interest by specialists and hospital managers as well as insurers and government.

'HOW' — Over the years peer review has become an integral part of the quality-management activities in medical staffs in The Netherlands. Although the functioning of peer-review committees among hospitals varies and even intra-hospital variations can be observed over the years, the amount of functioning peer-review committees seems high compared with the situation in other European countries that have not started a similar programme in the seventies (KLAZINGA, 1992B). Only medical and clinical audit activities in the UK, initiated by hospital management and several medical societies on the waves of cost-containment within the NHS system, seem to be comparable in volume (SHAW 1992, BUTTERLY 1994). In chapter 5 the place of the peer-review committee in the totality of other quality-management activities in the hospital and the medical staff will be discussed. Although peer review was set up for medical specialists, a growing number of non-specialists became members of peer review committees. This can especially be noticed for pharmacists and clinical-chemists, two professions that fulfil a supportive function towards specialists in the hospital and see their membership of the medical staff and the peer review committee as a means to optimise the integration of their work with the activities of the specialist. Furthermore, one can assume that participating in these fora increases the status of these professions as an equal partner of the medical specialist. Among medical specialists it is interesting to observe that specialties who do not provide direct clinical care also tend to become involved in peer review committees such as the pathologists and the radiologists. One can assume that a more dependent position in the hospital organisation enforces specialists to participate in activities that try to structure, evaluate and improve the ongoing practice.

The linkage to the medical staff model, so essential for the development of the peer review programme, seems in 1995 also one of its weaknesses. With the changes in the health-care system introduced in the nineties, the position of medical staff is also changing. Was the discussion in the sixties and seventies characterised by attempts to unite medical specialists working in the hospital in one organisational body, the discussion in the eighties (budgeting, policy plans) and the nineties (service orientation, management participation) is linking the individual specialist more to the functional units in the hospital he or she is involved in, than to the medical staff as a whole. This

movement is enforced by the recent debates and mechanisms on the financing of medical care where the group of specialists within one specialty (partnership, *maatschap*) is the negotiating partner with the financiers (insurers) rather than the medical staff as a whole (see also chapter 3 on the Biesheuvel report and the experiments with alternative financing schemes). This shift from central to decentral involvement has major consequences for quality-management activities when related to the primary process of care delivery. Chapter 6, based on topics selected for peer review through the method of priority meetings, will illustrate the limitations of the 'problems' dealt with through a peer-review method localised at medical staff level. It seems that with the changing role of specialists in hospitals in the nineties, a new locus of peer review might be necessary. These changes should rather be considered as an expansion than as a replacement. In many hospitals staffs, development is such that starting with peer review as a staff-committee is still a beneficial activity, but, depending on the level of staff development and hospital involvement in CQI and/or TQM new horizons are emerging. The fact that the Dutch Specialist Association in 1993 and 1995 put quality of specialist care as one of the key issues in their policy plans, but hardly mentions peer review as an important instrument any more, and places, together with many scientific societies, guideline development and visitation of non-teaching hospitals in the spotlights, seems to underscore this observation. The present model of peer review is transient with the functioning of the whole medical staff and the enforcement by the LSV. The limited success of peer review because of the complexity of the changes it endeavours to induce among specialists (see chapter 6), combined with a shifting of organisational focus towards partnerships in the hospital and scientific societies on national level, explains the popularity of alternative and new mechanisms for quality management. Examples are guidelines and visitation, which are also further away from day to day practice and therefore perhaps less threatening than peer review. These 'new ways of quality management' can, however, also be seen as a spin-off of the experience gained with peer review since 1976 (CASPARIE, 1995).

As discussed in chapter 3, during the period 1990-95 the conflicts on the financing of specialist care result in major tensions among the medical specialists. The LSV has to deal with two new independent specialist organisations on the one hand (i.e. NSF, NSG) and less obeying scientific associations on the other. The locus of professional autonomy seems to shift for the economic as well as the political and clinical autonomy. Policies on quality management are more and more associated with the activities of the scientific societies. In 1994-1996 the internal structure of the LSV is changed and more influence is granted to the representatives of the scientific societies as well as representatives of one of the opposing associations the NSF (Dutch Specialist Federation). In the 1995 report of the LSV, summarising the activities in the field of quality management, peer review in conformity with the 1976 model only plays a minor role. The popular instruments for professionalisation are guidelines and visitation programmes (enforcing the role of

scientific societies). Where peer review seemed to be the answer of the specialist community to questions about the quality of care in the planning era, guidelines and visitation seem to be the response to similar questions in the era of the internal market. The dynamics and the arguments used in the two eras are similar, the rhetoric differs in wording but not in intention, what seems to have changed is the ownership of the professional autonomy of medical specialists; the dominant role of the LSV has been eroded by the continuous external pressure and even more by the internal conflicts among the different groups representing medical specialists.

4.6 DEVELOPING QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE THROUGH QUALITY SYSTEMS WITHIN THE PROFESSION: KEEPING THE BALANCE BETWEEN TRUST AND TRUSTWORTHINESS OUTSIDE AND INSIDE THE PROFESSION

In this chapter the development of four different types of quality management systems within the medical profession have been described and analysed: speciality training and reregistration, disciplinary law, activities of scientific societies and a national programme for peer review initiated by the LSV.

All these activities have their roots in the development of the medical profession whilst maintaining professional autonomy but are shaped by intertwining with hospital management and society at large. The classical dichotomy profession/state in the Anglo-Saxon literature, seems to have played an important role in the shaping of the system for specialty training, (re)registration, and disciplinary law in The Netherlands, but rather than a polarisation it is characterised by the search for a balance that suits the interests of all parties concerned. Activities for quality management are above all related to the clinical autonomy, the control over medical practice, and try to address the growing individual uncertainty of a physician by providing more explicit decision-support systems and promoting teamwork. These developments are inherent to what makes the profession a profession: keeping control over a changing but exclusive knowledge domain. In a continuous strive to realise sufficient political and economic autonomy the instruments for quality management are also used as strategic arguments in discussions with policy-makers and health-care financiers. The descriptions in this chapter show that through the realisation of specialty training by the profession, (re)registration, disciplinary law, activities of scientific societies and a national programme for peer review, over the years initiatives have been taken by the medical profession driven by internal developments as well as external conditions. In retrospect, the external pressure, either by government, insurers or patient/consumers seems to have been essential for the speed of the introduction of change. The roots of the innovation are, however, found

within the profession itself and can usually be traced towards enthusiastic individuals that were able to obtain sufficient support within the profession. Thus the development of quality management of medical specialist care is a continuous process of balancing the trust within the profession and the trustworthiness towards the other actors in the health-care field.

Just as it is necessary to differentiate the concept of the 'state' in the dichotomy state/profession, it is necessary to discern the different professional groups that are involved in the development of quality management of medical specialist care. For the Dutch situation one should at least distinguish the role of the KNMG, LSV and the scientific societies. The KNMG is still officially in charge of the system for specialty training, the re-registration system and the system of disciplinary law (the last one in close co-operation with government). The KNMG is also considered as the main negotiator towards government on laws that affect the formal position of the professional and discussions on general ethical issues. Thus a large part of the political autonomy is maintained through the activities of the KNMG. The LSV has during the past decades been forced to spend a lot of its energy in the maintenance of the economic autonomy of medical specialists and lost part of its credibility when this proved to be impossible (HECKMAN 1996). Although the LSV was the motor for the peer review programme in 1976, the majority of activities related to quality management of medical specialist care are at present taken up by the scientific societies.

At the same time the position of the medical staff in the hospital is under discussion as a result of new ideas on the integration of the work and financing of the specialist in the hospital organisation. The further integration of management functions and the work of medical specialists, expressed by Hunter (1994) as a shift from tribalism to corporatism, has made clear that the classical peer review committee is only one out of the many elements that constitute the quality system for the hospitals (see chapter 5).

The development of quality systems within the profession under the realm of self-regulation seems to be transient with the intra-professional shifts of power control related to clinical, economic and political professional autonomy.

The system development as such has until now rested in the hands of the medical profession, thus not only enforcing the position of the different professional organisations, but also focusing the systems primarily towards medical effectiveness and only secondarily towards efficiency and patient satisfaction. The disadvantages of this overemphasis of quality aspects closest to the roots of medicine seem, however, preferable and acceptable given the advantage of consistent architecture of quality systems within the profession that are stressing professional improvement instead of control of professionals. Experience with more control-oriented audit models in the USA and the UK, initiated outside the profession do not seem to be more successful (POLLITT 1993, DENT 1993, ROBINSON 1994, WALSH 1994). Although the latest Leidschendam conference (June 1995) stressed the need of more patient involvement in the development of quality systems,

the developments described in this chapter show that the continuous dynamics on the quality issue between the profession and other parties in the health-care field on the one hand and those within the profession on the other, have resulted in an infrastructure of concrete more or less interlinking systematic activities (KLAZINGA 1992A), in which specialists are actively involved and managing the quality of their work. This active involvement is essential when taking the definition of quality in mind that was provided in chapter 1 and that considers quality as a capacity that should be realised rather than as a descriptive notion that needs to be evaluated.

TABLE 1

Articles from Medisch Contact *on quality-management activities of scientific societies covering the period 1988-1990 used for text analysis*

Breedveld FC, Boerbooms AMTh (1989) De Nederlandse Vereniging van Rheumatologen en kwaliteitsbewaking. Medisch Contact 44:1060

Chopra V (1991) Kwaliteitsborging in de anesthesiologie. Medisch Contact 46:855-856

Corstens FHM, Buijs WCAM (1990) Kwaliteitsbewaking en -bevordering in de nucleaire geneeskunde. Medisch Contact 45:126-128

Daal, WAJ van (1989) Kwaliteitsbewaking in de radiotherapie. Medisch Contact 44:813-814

Degener JE (1989) Medische microbiologie en de kwaliteit van het medisch en technisch handelen. Medisch Contact 44:962-964

Dieges PH (1989) Kwaliteitsbewaking in de allergologie. Medisch Contact 44:1211-1212

Dijkman JH, Wever AMJ (1990) Longarts en kwaliteit; de stand van zaken bij de Nederlandse Vereniging van Artsen voor Longziekten en Tuberculose. Medisch Contact 45:82

Engelshoven JMA van, Kingma LM (1991) Scholing en toetsing in de radiodiagnostiek. Medisch Contact 46:283-285

Giard RWM, Arends JW (1989) Kwaliteitstoetsing en -bevordering in de pathologische anatomie. Medisch Contact 44:845-846

Hemel NM van (1989) Kwaliteitsbewaking bij de Vereniging voor Cardiologie; van wensen tot werkelijkheid. Medisch Contact 44:991-994

Hoof G van (1989) Kwaliteit Heelkunde. (reactie op Lagaaij) Medisch Contact 44:1166

Kamerling R (1989) Kwaliteit van Zorg. (reactie op Schröder) Medisch Contact 44:1362

Lagaaij MB (1989) Eigen verantwoordelijkheid voor kwaliteitsniveau; opvattingen bij de Nederlandse Vereniging voor Heelkunde ten aanzien van kwaliteitsbewaking. Medisch Contact 44:928-929

Prevo AHJ (1991) Kwaliteitsbevordering in de opleiding tot revalidatie-arts. Medisch Contact 46:567-568

Sanders GTB, Berends GT (1989) Klinische chemie en kwaliteit. Medisch Contact 44:1177-1178

Schröder FH (1989) Opvattingen ten aanzien van kwaliteitsbewaking bij de Nederlandse Vereniging voor Urologie. Medisch Contact 44:1138-1139

Schütte HE, Manoliu RA (1989) Kwaliteitsbewaking en kwaliteitsbevordering in de radiodiagnostiek. Medisch Contact 44:1111-1112

Werner FM (1989) Kwaliteitsbevordering in de anesthesiologie. Medisch Contact 44:879-881

Zoethout HE (1991). Kwaliteitsbevordering en -bewaking in de kindergeneeskunde. Medisch Contact 46:333-335

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Chapter 5
Professional infrastructure and operationalisation of quality management of specialist care in the hospital

"Discretion on the part of the health worker [...] may be taken as a prerequisite for providing a truly human service. It alone is flexible enough to serve as faithfully as possible the needs of varied individual patients [...]. But discretion has [...] its own dangers. It is more easily subject to abuse than is formally regulated behaviour [...] Discretion must, while remaining the core of service, nonetheless be disciplined by a concern for the quality of work in the light of the general public and particular patient interest. It cannot be disciplined by administrative rules because such rules either destroy it in the course of regulating it or drive it under ground where it cannot be controlled. What is needed for optimal service to human beings is thus not more elaborate and constraining administrative schemes but rather some way of getting workers to discipline themselves in the light of public interest. That is the optimal alternative."

Freidson (1970)

5.1 INTRODUCTION

In the previous chapter the nature and development of quality management of medical specialist care was explored by looking at its manifestations within professional organisations on national level. This chapter will focus on quality-management activities of medical specialist care executed at the hospital level. There is a strong relation between what has been described in chapter 3 (health policy context) and chapter 4 (quality systems of the medical profession set up on national level), and the activities in hospitals analysed in this chapter. Format, content and scope of a lot of the present operational activities labelled as quality management of medical specialists

care in hospitals are determined by opinions and policies as developed by professional associations and scientific societies at the national level and are shaped by the policy dynamics in the health-care system. This chapter will first discuss the general features of professional practice of medical specialists in hospitals. Three main components of the professional infrastructure of medical specialists in Dutch hospitals will get special attention: the medical staff, partnerships and the 'house staff'[11] (see also 3.4.1 and 3.5.1). These three infrastructures are chosen because they cover the infra-structures through which professional autonomy has been institutionalised in the hospital setting. Speaking in general terms, political autonomy of medical specialists is guarded for the collective group of specialists working in a hospital through the medical staff, economic autonomy is represented in the partnerships and clinical autonomy is in an extended form represented by the 'house staff', (physicians in training for specialist (AGIOs, *assistent-geneeskundige in opleiding*) or general physicians in the hospital (AGNIOs, *assistent-geneeskundige niet in opleiding*) doing medical work under the direct responsibility of the specialist). It is relevant to describe these features of intra-institutional practice when analysing quality management of medical specialist care because:

> *"Physicians bring to their practice the consequences of the general and special professional attributes. The most important of these are the creation of a separate organisational structure and the continuation of private practice. Consequently, physicians continue to maintain a virtually complete corporate and economic identity only tenuously subject to control by the larger organisation."*
> (DONABEDIAN, 1991:90).

It will be discussed how medical specialists and the hospital organisation interact and an overview will be provided of the general theory on the profession/management debate in literature (5.2.1). Several 'solutions' of the profession/management dilemma are discussed that have over the years been proposed and experimented with in Dutch hospitals (5.2.2). Successively, the functioning of the medical staff (5.2.3), partnerships (5.2.4) and 'house staff' (5.2.5) will be highlighted and a justification will be given why their role in Dutch hospitals is considered instrumental to the nature and development of the present quality management of medical specialist care. Subsequently the different types of concrete activities that can be labelled quality management of specialist care will be listed (5.3). The listing will be based on a model on quality management in hospitals that was developed as part of a project called 'Hospital Audit' (CBO/NZI), realised between 1985 and 1988 in three hospitals (BEDAUX,

[11] *The term 'house staff' is put between quotation marks because, as will be explained in 5.2.5, it possesses a meaning of its own in Dutch, which differs from the common meaning in the* USA *and the* UK. *This is mainly due to the horizontal staff structure of specialists in Dutch hospitals compared with these other countries.*

DUBBELBOER, KLAZINGA ET AL.1988, KLAZINGA 1987). This project was one of the first more formalised steps to develop and implement a hospital-wide quality assurance programme in The Netherlands. The model discerns activities on three levels: direct and daily ('operational') (5.4), indirect and periodical (committees, 'tactical') (5.5) and overall co-ordination (medical staff 'strategy') (5.6). The committee activities belonging to the second level are discussed in more detail. A series of committee activities will be analysed: autopsy committees (5.5.1), incident committees (5.5.2), infection committees (5.5.3), and drugs committees (5.5.4). These descriptions are based on empirical material on the history, existence, and functioning of committees in Dutch hospitals related to quality management of medical specialist care. A European perspective will be provided by comparing the Dutch situation with data about the situation in other European hospitals as obtained during the COMAC/HSR/QA study (1990-1993) (KLAZINGA ET AL. 1994).[12] Each of the different committees will be analysed with the help of the framework of analysis explained in chapter 2, thus exploring the merits of the committees as infrastructures for quality management of medical specialist care from the perspective of management and innovation-diffusion theory (5.5.6). The final paragraph of this chapter (5.6) will deal with the activities of medical specialists related to quality management on medical staff level ('strategy'). This paragraph will provide a global overview of the quality management themes that are on the agenda of the medical staff and will provide a further analysis of the nature of the associated intra-organisational dynamics between medical staff and hospital management.

Throughout this chapter the functioning of the medical specialist is taken as the starting point of descriptions and analysis. This focus is inherent to the choice to analyse quality management of specialist care instead of quality management of hospital care. In chapter 8 a different approach will be taken. There the development of quality management in the whole hospital organisation is the starting point and it will be discussed if and how the professional perspective of quality management of medical specialist care can be integrated in the organisational perspective. However, to understand the dynamics of this integration, it is necessary to analyse first in this chapter the nature and development of existing operationalisations of quality management of specialist care in Dutch hospitals from the perspective of medical specialists.

[12] *The development of quality management in European hospitals was studied through a concerted action programme, financed by the* COMAC *programme of the* EU. *This study involved 267 hospitals in 15 European countries and had a pre-post design where during the intervention hospitals were stimulated to execute peer-review studies on record-keeping, pre-operative assessment, prophylactic antibiotic use in surgery and prevention of bedsores. Data obtained during this study on existing committee activities, based on two surveys among the participating hospitals in 1990 and 1993, will be used in this chapter to place the Dutch situation in an European perspective. It should be noted that the data are not representative for all European hospitals and that they are subject to issues of validity and generalizability as discussed in the respective published papers* (I.E. KLAZINGA ET AL. 1994).

5.2 THE POSITION OF THE MEDICAL SPECIALIST IN THE HOSPITAL ORGANISATION: GENERAL PROBLEMS BETWEEN PROFESSIONALS AND HOSPITAL MANAGEMENT, DUTCH SOLUTIONS AND THE ROLE OF THE MEDICAL STAFF, PARTNERSHIPS AND 'HOUSE STAFF'

5.2.1 The profession/management dilemma: merging professionalisation theory originating from sociology and contingency theory originating from the administrative sciences

The appearance of doctors in hospitals at the beginning of the century was the start of a continuous dynamic interaction of professionals and hospital managers. Although patient management and institutional management should be complementary, in both the fields of sociology and administrative sciences for a long time the focus has been on the dichotomy between profession and management. The importance of this dichotomy or rather the need for consensus between specialists and administrators is also recognised by Donabedian as an important factor for the effectiveness of quality assurance endeavour:

> *"Of particular importance is the organisation of the medical staff and the way in which it relates to the administrative apparatus and to the governing body of the organisation.* [...] *The way responsibility is allocated among the governing board, the medical staff, and others in an organisation can be expected to be critical, but we do not know as yet what particular configuration is most conducive to the effectiveness of formal monitoring (of medical practice as part of quality assurance)."*
> (DONABEDIAN, 1991:82).

Proof through health services research that a positive relation exists between hospital organisation and medical staff organisation on the one hand and the effectiveness of care on the other has been provided by Shortell and LoGerfo (1981) for myocardial infarction and appendectomy, by Flood et al. (1982) for surgical care delivery and by Georgopoulos (1985) for treatment at hospital emergency services.

The situation in the USA illustrates the profession/management dilemma in the sixties. Scott (1966) introduced the conflict thesis: the confrontation of the interests of bureaucrats and professionals. In the seventies and eighties this thesis is criticised, as it becomes clear that empirical studies on hospital organisation show a more complex picture (DAVIES 1983, PUGH AND PAYNE 1977, BENSON 1973, GEORGOPOULOS 1985, FLOOD ET AL. 1982, STEVENS 1987, STEVENS AND PHILIPSEN 1988). As Stevens points out, professionalisation and bureaucracy are both exponents of modernism. Both are building on a rational approach of controlling: either professional development or institutional development.

The need for control can come from inside (new knowledge, technological development) or outside (cost control, accountability). In reality there is always an interdependency of the two rationalisation processes. Thus problems can better be rephrased as the question to what extent the changing practice of medicine needs the introduction of more bureaucratic elements (standardisation/formalisation, hierarchic control) and to what extent hospital management tries to incorporate professionals in the hospital management functions (task force, product team, matrix organisation, management roles of specialists). A question that has been addressed by various researchers over the years (LITWAK 1961, SCOTT 1965, ETZIONI 1964, GALBRAIGHT 1973, NEUHAUSER 1978, GRIFFITHS, 1983, HUNTER 1994, HARRISON AND POLLITT 1994). Components of quality management of medical specialist care, such as guideline and protocol development and the use of indicators can be considered from a bureaucratic perspective. Even so can structural and cultural approaches made by hospital management under headings as Total Quality Management and Continuous Quality Improvement, all attempts to integrate the medical staff in the hospital organisation, be seen from a professionalisation perspective. For the present situation in the UK Harrison and Pollitt go as far as stating:

> "*The Health Service experienced a veritable epidemic of* TQM *schemes, quality circles, Directors of* QA, *quality standards (including all the fuss around* BS5750*), quality charters and the like. A commonplace professional reaction to this quality 'hype' was the faintly defensive observation that health-care professionals have always been strongly focused on the quality of their work, and that it is misleading to imply that such concerns were in any way new. What is actually going on here, we suggest, is a struggle for control, very much including control of the meaning of the terms and labels used to describe and define the services the* NHS *provides.* [...] *The new prominence (and new meanings) given to 'quality' can be regarded as part of a highly political process. It is therefore pertinent to inquire who is pressing for increased attention to quality, and how quality is defined.*"
> (HARRISON AND POLITT, 194:95)

The situation in The Netherlands does not seem different in this respect and thus an analysis of quality management of medical specialist care should address the underlying forces to control medical practice: either from a professionalisation theory perspective or from a management theory perspective.

The conflict thesis has, however, mystified for too long the interaction between medical staff and hospital management and blurred the vision on common interests. Professionalisation theories that take a context approach (formalisation theory), and organisational development theories that take the contingency approach, seem to provide a better theoretical basis for the empirical findings than theories that merely

enforce the conflict thesis. An alternative for the conflict thesis has been offered by Strauss (1963) who argues that a hospital is a negotiated order. And from the professionalisation point of view Freidson (1970) and Johnson (1972) have began to stress the circumstances under which claims to professional status and reward are made and can be made successfully. A profession in Johnson's definition is not an occupation, but 'a means of controlling an occupation' (JOHNSON 1972:45). Parallel in theories on organisational development from the administrative sciences this context (contingency) thinking can also be noticed as applied to hospitals (BENSON 1983, MINTZBERG 1983, MORGAN 1986). These sociological and managerial theories have in common that they stress the interaction between profession and management and the continuous transformations that take place, transient with the context; key words are 'transformation' and 'adaptation'. Contrary to the conflict thesis, that stresses the conflicts of interests between the two parties (and thus explains why conflicts arise), contingency theories seem more focused on the way how solutions are reached.

In chapter 3 of this study a similar context approach (social and economic) has been used to explain the effects of the forces of professionalisation and organisational development on the nature and development of quality management of medical specialist care on the macro-level of the Dutch health-care system. The text presents respective quality-management activities rather as results of the merging of the thriving forces in a common context than as the results of the polarisation of the two forces. A similar approach will be taken in the following paragraphs in this chapter where the nature and development of quality-management activities of medical specialist care will be related to the context of medical staff, partnerships and 'house staff' with continuous awareness of the underlying forces to control medical practice.

5.2.2 The role of the medical staff

When applying organisational theory to hospitals, it is evident that focus is placed on the position of the medical staff. As should be clear from the previous chapters, the features of medical staff organisation in Dutch hospitals and its position towards hospital management are important factors to understand the development of quality management among specialists. The medical staff, being a regulated organisational body, with bylaws formalised at the national level, and assignment of tasks and responsibilities, constitutes one of the focal points in studies on the interrelationship between specialists and hospitals. In the Anglo-American literature, research results on the organisation of medical staff can be found in the work of Shortell et al. (1979, 1981). In his article 'Measuring hospital medical staff organisational structure' he reports a study of six dimensions of hospital staff organisation structure (dimensions derived from ROEMER AND FRIEDMAN 1971). The data are based on a 1973 nation-wide

survey of hospital medical staffs conducted by the American Hospital Association. The six dimensions of medical staff organisation emerging from this study are:

- resource capability;
- GP contractional orientation;
- communication/control;
- local staff orientation;
- participation in decision making;
- hospital based physician contractional orientation.

Application of these dimensions on the Dutch hospital situation leads to the conclusion that dimension 2 is as yet less relevant (no GPs at present have contracts with the hospitals although the GP-fundholding experiments in the UK are followed with great interest) but could be read in terms as 'referrals of GPs to specialists in the hospital'; for dimension 6 it can be noted that the contractual relations in The Netherlands show a restriction of one specialist to one hospital (with limited exceptions) (closed hospitals, see 3.4.1). In his work Shortell contrasts these dimensions to hospital ownership, size, teaching status and region of the country. Different staff profiles in smaller and larger hospitals clearly emerge as well as distinctive patterns for for-profit hospitals. He also demonstrates the influence of external administrative policies on the characteristics of the medical staff (SHORTELL 1979, 1981).

In The Netherlands similar studies on the functioning of medical staff are rare. Similar to the AMA (NOIE ET AL. 1983, MORRISEY ET AL. 1983) the Dutch Specialist Association (LSV) has over time sent several surveys around to evaluate the functioning of medical staffs (as reported in the LSV annual reports) but specific studies on the relations between staff characteristics and hospital performance are not conducted as yet. Nevertheless some reflections are worthwhile, to contrast the Dutch situation with the American research findings.

To start with, the similarities between the reports of the LSV (1985) and the AMA/AHA (1985) on medical staff organisation are striking. The reports cover similar items as formalisation of the relations between staff and hospital management and stress the need for co-operation. Given the scope of medical staffs and the size of The Netherlands, the potential for influencing medical staffs through the policies of the LSV (staff correspondents, regular meetings, management training) seems larger than in the American situation. Changes over the last ten years like the introduction of internal budgeting schemes, the writing of strategic policy plans and the experimentation with management participation, appear to have strengthened the intertwining of medical staff and hospital management. However, this intertwining has not been realised yet for the financial interests such as in the USA, where Health Maintenance Organisations and other entrepreneurial constructions for hospitals have been set up in which specialists participate as owners or stake-holders. Another major difference seems to be the closed nature of hospitals and medical staff in The Netherlands in combination with the gate-

keeper function of the GP, compared to the 'open' situation in many American hospitals. According to the study of Flood (1982) this closed nature of medical staff is a favourable characteristic in relation to the medical effectiveness of the organisation. Health services research studies in Europe on the relation between medical staff organisation and the effectiveness of care were not found. The concerted action programme on quality assurance in hospitals, however, provided some qualitative insight into the functioning of the medical staff in other European countries. A clear distinction should be made between specialists and hospitals that function in the setting of a national (tax based) health system (i.e. UK, Italy, Denmark, Spain, Sweden) and insurance based systems (i.e. Germany, France, Belgium, The Netherlands). The situation in The Netherlands seems, however, to be rather unique as it combines an insurance-based system with private ownership of the majority of hospitals, a GP as gate-keeper and payment of specialists on a fee-for-service basis. This makes the position of the specialists differ from the salaried positions of colleagues in NHS systems, and the salaried position of specialists working in hospitals in Germany and France although in the latter two countries specialists still have the possibility to have a private practice outside the hospital organisation. Another distinctive characteristic of many medical staffs in Dutch hospital is their 'horizontal' character and lack of a formal professional hierarchy; this is different with the situation in the UK, where medical specialists in the role of consultants have a more external position towards the hospital and the more strict hierarchy in medical staff organisation in Germany and Austria. Given these characteristics a comparison with the USA situation, with somewhat similar conditions with respect to the formal position of specialists, seems defensible. It should be noted, however, that in policy papers on the control of medical practice in hospitals in the various European countries the problems described and arguments used do hardly differ between countries with salaried specialists and specialists paid on a capitation or fee-for-service base (see for example Harrison and Pollitt for the UK situation). It is a simplification to limit discussions on control of professional practice to the domain of economic control and, successively, limit economic control to payment systems for specialists. In all countries the existence of a formalised structure for the medical staff in hospitals is reported (COMAC/QA REPORT 1990) and ways have been found to structure the discussion between the group of professionals and hospital management. Like in The Netherlands, medical staff organisation seems to be an important vehicle to assure political autonomy and to execute activities to regulate collective clinical autonomy.

5.2.3 *Attempts in Dutch hospitals to solve the professional/managerial dilemma*

Given the before mentioned theoretical approach, in which the interaction of physicians and hospitals is not perceived from a conflict point of view but rather as the merging of the processes of professionalisation and organisational development influenced by contextual variables that can be found inside and outside the profession, an analysis of the development of medical staff in Dutch hospitals in its interaction with management will be provided by looking at the different practical solutions proposed and used over the years as expressed in policy papers and articles. The conflict identified in the initial thesis by Scott is not so much the conflict between professional and institutional notions as an internal conflict between responsibilities for both the product quality and the economic concerns of the enterprise. This ambiguity between 'delivering care' and 'running a business' exists for the professional as well as for the hospital management. As was expressed in detail in chapter 1, quality management for the professional is finding an equilibrium between medical effectiveness, efficiency and patient satisfaction. This equilibrium implies finding a balance between responses to the needs and demands of individual patients on the one hand and running a practice in an organisational setting that is set up to care for groups of patients given certain external economic and social constraints on the other. The same holds true for the management goals of hospital managers. Although traditionally the physician has been more concerned with effectiveness, focusing on individual patients and the manager with efficiency, focusing on the functioning of the organisation. These notions are changing as demonstrated by the inclusion over the years of the efficiency aspect in the quality concept of specialists (chapter 3, 6 and 7). Therefore the balancing of different goals related to the clinical as well as the entrepreneurial (economic, political) aspects of delivering specialist care in an organisational setting, lies as well in the role of the professional as in the role of the hospital manager. The dynamics of the merging of these different goals is manifested daily in the interaction of management and professionals on the operational level as well as on the tactical and strategical level of the hospital organisation. Different suggestions have been made over the years to achieve synchronisation between specialists and management on entrepreneurial (political and economic) as well as operational (clinical) goals. The suggestions made in the Dutch context to improve the relation between profession and management are listed below. Articles in *Medisch Contact* and policy papers of the associations of specialists (LSV) and hospital managers (NZR, NVZ and NZI) were used as a source to compile this overview. Several of the proposed solutions are based on empirical experience. By interpreting the different solutions, the specific characteristics of the functioning of medical specialists in Dutch hospitals should be kept in mind.

The following suggestions to strengthen the relation between specialists and hospital management, categorised in five types of activities, can be found in Dutch articles and policy reports of the past three decades:

1 **Formalisation of the mutual roles and responsibilities of specialists and hospital management**

- model rules and regulations for medical staff and staff committees (LSV, FIRST VERSION 1960);
- model contracts for partnerships (LSV, FIRST VERSION 1964);
- model contracts between hospital and individual specialists (LSV/NZR, 1977, 1980);
- formalisation of the role of the medical director (SWENKER 1987);
- governing model of a board that functions as board of trustees (PETERS 1984);
- formalisation of advice procedures and decision-making procedures within the medical staff and towards management; formal mandates and the installation of a nucleus staff (LSV REPORT 1985);
- quality norms for medical staffs; criteria used for visitation (LSV, 1990, 1992).

2 **Activities to be taken up by the medical staff in relation to the overall functioning of the hospital**

- staff involvement in peer review (LSV/GVBZ, 1976);
- staff involvement in utilisation review (LSV 1973, TAM, NZI 1985);
- staff involvement in quality improvement activities of the hospital (since 1985, see chapter 8).

3 **Creation of an intermediary between medical staff and hospital management**

- representative of medical staff in the governing board of the hospital (LSV annual reports 1974-1975);
- representative of medical staff in the *ondernemingsraad* (workers' council) of the hospital (ANNUAL REPORT LSV 1971);
- introduction of a medical advisor instead of medical director (negative experience) (ADRIAANSENS AND DEN OTTOLANDER, 1982);
- appointing a co-ordinator in the medical staff (REYNDERS, 1984);
- representative of medical staff in the management team (practice in several hospitals in the nineties) under the aegis of management participation.

4 **Participation of specialists in hospital management**

a in relation to strategic management

- strengthening the role of specialist in strategic policy-making in the hospital with respect to purchasing new technology and other innovations (PETERS ET AL. 1984);

- medical policy plans (REPORT LSV, 1985); an improved organisational model of the medical staff: should adapt to internal professionalisation and external pressures as budgeting, additional hospital regulations, regional planning (limitation of number of beds). Formulation of a policy plan by every medical staff is proposed;
- marketing for specialists (BROERE, VERBRUGGE, 1988).

b in relation to tactical and operational management

- 'from patient to consumer orientation' (MANS philosophy) (KRUYT 1985);
- introduction of a physician-generalist manager (BRAKEL, BUNJES, LEIJNSE, 1986);
- horizontalisation of management responsibilities of specialists (VAN DER STEEG, JASPERS, 1986);
- support of management participation and self-governance of specialists (LSV; PLASMANS/OVERBEEK 1987);
- specialist self-governance (TAP, SCHUT, 1988);
- LSV policy report *The specialist of tomorrow* (1988); initial ideas on management participation;
- medical protocol as instrument for decisions on resource allocation (SCHOOL 1989);
- small wards with a GP as case manager (LAANE, 1990);
- management participation in support services (OLTHOF, VAN DER GRIENT, 1990);
- IZP project of NZI and CBO; logistics, management integration based on information (SCHOOL ET AL., 1991; HEYSTEEG-SMITS ET AL. 1990);
- medical outcome management (LAANE, VUISTER 1990);
- division model and specific working units with a management role for the specialist, implying reorganisation of the traditional ward/department model (CROONEN, 1991);
- specialist as production manager (BOODT, 1991);
- a case study of management participation (BONGERS-SAUER, 1991);
- no operational management responsibilities for specialists (BRUINS SLOT, WATTS, 1991A);
- improvement of operational information, as a prerequisite for management (BRUIN SLOT, WATTS 1991B);
- LSV, NZR and NZI; report on management participation of medical specialists in general hospitals, 1991;
- NZR/NVZ, 1992, report *Perspectives for the specialist for the day after tomorrow* (Braaksma, Schaaf et al.); suggestion to distinguish two type of specialists (A and B) with more or less management involvement.;
- LSV, NZR and NZI; report on management participation of medical specialists; on the road to a different organisation, 1993;
- LSV, NZR and NZI; report on management participation of medical specialists and decentralisation of the management of care, 1995.

c Management training for specialists

- management training of specialists (SCHOPMAN 1990);
- LSV and Erasmus University Rotterdam; joint venture on the provision of training courses on management for medical specialists (several short courses yearly since 1992).

5 Synchronisation of the economic interests of specialists and hospital management

- cost control through quality assurance (peer review) (LSV, HECKMAN 1985) (Reaction Reynders 1985; choices made by specialists need not be correct and the relation with GPs is forgotten);
- transition of the responsibility for the allocation of means to the medical staff because a structure in which the responsibilities for patient care and resource allocation are separated will not work in a period of cost-containment (TAP AND SCHUT, 1988, ENGLISH VERSION 1987);
- physician self-governance on resource allocation (LSV; PLASMANS/OVERBEEK 1987);
- physician with budget responsibility (BROUWER ET AL. 1988, MODEL UNIVERSITY HOSPITAL MAASTRICHT);
- specialist as hospital employee to limit economic interest (salary plus construction) (REPORT OF STATE COMMISSION BIESHEUVEL 1994);
- system of output pricing, including hospital and specialists costs (PLATFORM CURATIEVE ZORG, 1994);
- give up economic autonomy and concentrate on expertise (HECKMAN, FORMER CHAIRMAN LSV, 1996).

This overview is not extensive, not all suggestions and practical solutions found in hospitals were published and the focus of this particular search has been on publications aimed at specialists instead of hospital managers. However, it illustrates the point that since the formalisation of the medical staff structure in the sixties and seventies, there has been a continuous movement in getting the medical staff and the specialists involved in hospital management. Initial focus seems to have been on the formalisation of the relations and responsibilities (items in category 1) and on the establishment of an effective communication structure between specialists and hospital management (items in category 2). Furthermore, both the LSV and the NZR have perceived the medical staff as an infrastructure where specific activities should be developed that belong to the professional domain but have direct consequences for the hospital organisation, such as peer review and utilisation review (items in category 3) Especially after the introduction of the budgeting system for hospitals in 1983 (and thus the need for internal budgeting and agreements between specialists and hospital

management on the volume of specialist care) interest has grown towards the involvement of the specialist in management processes in the hospital. Initially this interest was operationalised on the level of hospital strategy with the formulation of policy plans of the medical staff as part of the overall process of policy plan development of the hospital (items in category 4a). The need for policy plans on strategy was surely enforced by the ideas about market orientation of hospitals since the Dekker report in 1987. Since seven years involvement of the specialist in tactical and operational management has been put more and more on the agenda (items in category 4b). A series of policy reports of both LSV and NZR/NZF promote the ideas about 'management participation' and a great number of hospitals has been experimenting with specialists in management roles and/or projects focusing on logistical management or informatisation that aim to improve the integration of the working processes of the specialists in the primary process of the hospital organisation. More and more these projects, experiments and policy notions are labelled as 'quality improvement projects' (NZI, 1992), and 'hospital quality policy' and the development of 'quality systems' (CASPARIE 1989, HAGENDOORN 1989); a labelling practice that has been enforced by the Leidschendam conferences (1990, 1991) and the policy of the Dutch government (WVC, POLICY ON QUALITY OF CARE 1991). Seen from the hospital perspective, this development will be discussed in detail in chapter 8. The aim of this chapter is to demonstrate that over the years a gradual process of integration of specialists in the hospital organisation has taken place and that the medical staff has been a crucial infrastructure for many of the developments.

Although several attempts for integration have been made, one obstacle remained present in the majority of hospitals: the tension between the remuneration of the specialist (fee for service) and the hospital (budget based on national parameters). Although the entrepreneurial interests can be synchronised on the political level, on the economic level conflicting interests are built in the financing model. This insight is not new but it proves to be difficult to change the situation. In category five some suggestions for a solution are listed. Although the present government plans for the financing of specialists threaten the economic autonomy of the specialist (the cabinet has in 1995 endorsed the Biesheuvel plan that proposes a salaried position for specialists), the combination of external pressure and regional flexibility seems to have provided some room for alternative solutions. Since 1994 on a regional level hospitals, specialists and regional care insurers can experiment with alternative ways for the financing of specialist care; for example, a pre-set budget for specialist care as part of the overall hospital budget (SCHOLTEN 1994). These experiments together with policy plans on output pricing combined with patient groupings (REPORT *Platform Curatieve Zorg* 1994) seem to provide new enforcement on the health policy level of the further integration of specialist care in the hospital organisation and thus a further integration of quality management of specialist care and quality management of the hospital. It is significant that in 1995 hospitals and

specialists that wanted to be recognised as an official experiment by government (and thus trying to escape the threat of further reduction of specialists fees) had to submit a 'quality paragraph' as part of the contracts made between hospital, specialists (represented by their medical staff) and the local insurer. Hence, at least on policy level a link was accomplished between financing and quality management enforcing actions of both medical specialists and hospital management. Whether this is merely an exercise on paper or will result in concrete actions still remains to be seen. Experiences in the UK with implementing medical audit as part of contractual agreements are mixed (WALSHE AND COLES 1993, BUTTERLY ET AL. 1994, BUTTERLY ET AL. 1995). Although various activities can be reported, the overall results do not seem to live up to the (high) expectations of the policy-makers at the time of the formulation of the agreements.

5.2.4 The role of partnerships

Entering the debate on economic interests, the discussion on the intertwining of medical specialist and hospital would not be complete without discussing the format in which in general hospitals and non university teaching hospitals the majority of specialists have organised their economic entrepreneurship: the *maatschap* (partnership). Although most analyses of the role of specialists in hospitals focus on the organisational structure of the medical staff, it seems worthwhile to discuss the role of the partnerships (KREUTZER 1994). In reality the specialist considers himself or herself first of all a member of the partnership and only in second place a member of the medical staff. Apart from being an economic unit, the partnership is also the most important working unit for professional interaction as its members are peers of the same specialty. Hence, 'partners' see each other on a daily basis and are as a group linked to specific specialty wards. Therefore the (informal) relation between the specialists of a partnership and the nurses working on the wards of that specific specialty is more intense. Although in the majority of hospitals ambulatory (policlinical) and clinical work of a given specialty is separated in the organisational structure of the hospital, because of the functional overlap their is communication (and identification) between nursing and other hospital staff working with and for a specialty partnership. The relatively quick acceptance of visitation of partnerships set up by the respective scientific societies as an instrument for quality management compared to the slow start of visitation of the whole medical staff as set up by the LSV (see chapter 4), strengthens the impression that identification of the specialist with the partnership (with on a distance the scientific society) is stronger than with the medical staff (with on a distance the LSV). Moen and Abma have analysed the role of partnerships (in 1992) by considering the hospital as a network of transactions between partnerships. Their analysis identified seven problems in the relation between specialist and hospital management:

- the limitation of co-ordination inherent to the characteristics of the professional organisation (this is not new and is in accordance with other models such as Mintzberg 1989 stressing education and socialisation as means of control);
- the dual organisational model with respect to influence on decisions (in accordance with the analysis of Scott provided in 1966);
- a collegiate culture within the medical staff with limited formalised authority (this is similar to the descriptions of medical staff provided by FREIDSON, 1970, PART II);
- interests of partnerships versus the interests of the hospital;
- conflicts of interest within and among partnerships;
- a marketing strategy of partnerships versus the marketing strategy of the hospital as a whole;
- the dominant character of the external frame of reference causing heterogeneity of external standardisation (this can, for example, be interpreted as the quality-management initiatives taken by scientific societies versus the initiatives of the LSV as described in chapter 4).

The conclusion of their analysis is that, given the conflicting interests policy participation seems a better alternative than management participation (MOEN AND ABMA 1992, but also DE ROO 1992). Hence, they seem in favour of the common activities related to strategic management but consider it mandatory to create synergism between the financial interests of hospital and specialists before implementing more extensive forms of management participation on the tactical and operational level. This holds also true for the different types of quality management as initiated by specialists and hospital management. Their conclusion is contrary to a policy paper on management participation, written by the National Hospital Institute and endorsed by LSV, NVZ (Dutch Association of Hospitals) and ZN (corporate organisation of Dutch insurers, private insurers as well as former sick funds) and issued in 1995. This policy paper enforces the further implementation of management participation while at the same time promoting decentralised organisational units for care delivery in the hospital.

The division between management participation and policy participation seems somewhat artificial and could potentially cause the same unproductive dualism as the dualistic model of Scott in 1966. A distinction of political, economic and clinical autonomy on the one hand and strategic, tactical and operational (quality) management on the other, seems to offer a more coherent frame to understand the dynamics between medical specialists and hospital management. It demonstrates how from different perspectives of autonomy on different management levels interests of specialists and hospital management are consensual or conflicting. This implies that quality-management activities on strategic, tactical and operational level should be analysed from the perspective of clinical autonomy as well as economic and political autonomy. It is evident that in reality activities cannot be organised fully in accordance with these different perspectives. However, it is necessary to identify the various roles the specialist

and manager are playing in specific situations, and the goals they try to reach, to clarify the dynamics. Dissimilar hospital settings will result in different solutions depending on the characteristics of the medical staff, hospital management and external context. If this external context is liberalised more over the coming years, new alliances will emerge, but it is also feasible that centralised budget control and fixed rates will freeze the present situation. In this respect the outcome of the Biesheuvel discussion is promising: for the moment both the specialist and hospital organisations seem to identify 'product pricing' as a new challenge through which the clinical, political and economic interests of both specialists and hospital management could be synchronised. Moen and De Roo are right when they state that more synergism between the financial interests of medical specialists and hospital management are needed to make more advanced forms of management participation workable. One just has to observe the turf battles between different specialties in multi-specialist organisational units such as the Intensive Care Unit and the Emergency Department to realise that conflicting economic interests can block productive co-operation (see also 6.5.13 and 6.5.9). However, as stated earlier in different wordings, these turf battles will not disappear when all specialists are salaried but constitute the way professionals, on a collegiate basis, have to reach agreement on mutual responsibilities. The success of quality-management activities is often transient with the extent that agreements on these mutual responsibilities have been reached and acted upon (see also chapter 6).

5.2.5 The role of 'house staff'

After discussing the role of medical staff and partnerships as the infra-structural components relevant for the functioning of specialists in Dutch hospitals, a third phenomenon should be addressed: the 'house staff'. It is important to recognise that specialist care in hospitals is not solely provided by certified medical specialists but is produced by medical specialists together with physicians doing specialty training (AGIOs) and physicians working in the hospital doing general medical work without taking part in a specific training programme (AGNIOs). Hence, specialised care is the subject to labour division between different categories of physicians with different levels of expertise and mutual hierarchical relations. As explained in chapter 3, specialist training in The Netherlands is governed by the professional associations. Specialty training lasts 4 to 6 years, depending on the specialty. Until 15 years ago it was customary to find only certified specialists in the general non-teaching hospital. In the teaching hospitals and the university hospitals one would find medical specialists but also a considerable number of specialists in training (AGIOs). Both the limitation of the number of training positions (as a result of cost containment and government planning regulation of specialists positions since the mid-seventies) and the rise in demand for specialist care with a consecutive increase in production,

resulted in a new phenomenon: the AGNIO. A physician, usually just graduated from medical school, who works in the hospital for on average 1-2 years without taking part in a formal specialty training programme. The distinction between AGIOs and AGNIOs has existed in Dutch hospitals for over 15 years now and various attempts have been made to settle the problem that of two physicians performing identical tasks, one gets recognition as being in training for specialist and the other is just doing the job without further career perspectives. One of the solutions proposed was to introduce the position of a 'general hospital physician' to take up general clinical management functions: a debate that has been called in short the 'house staff' discussion (giving 'house staff' a political meaning instead of the general generic term for all in-house physicians (junior and senior) as in the UK). At the request of the Dutch government two studies on house staff development were executed by the Dutch Hospital Institute in 1986 and 1988 (BEDAUX, KLAZINGA ET AL.). These two studies described the development of the house staff phenomenon and the different functions that were at that time performed by persons labelled as AGIO or AGNIO. The conclusions of the studies were, among others, that it was not desirable either from the point of view of economic efficiency nor quality assurance to introduce a separate category of general physicians as house staff in hospitals. Identification of the AGIO/AGNIO with specific specialties and departments seemed necessary to assure continuity of care, sufficient communication, work satisfaction, and, as a consequence, 'quality'. These conclusions were in accordance with the opinion of the LSV, but every couple of years the 'house-staff idea' is ushered by hospital management as a panacea for many existing problems (JASPERS 1993). Recently an extensive overview of the present working conditions and content of the work of AGIOs and AGNIOs has been provided by Weersink et al. (WEERSINK AND SCHOLTEN 1995, SCHOLTEN AND WEERSINK 1995).

With respect to the possibilities for implementing quality management of medical specialist care the functioning of AGIOs and AGNIOs has consequences on different levels. On the operational level specialists delegate responsibilities for care to other physicians. If these physicians are part of a training programme, formal feedback and control is usually clear. For AGNIOs part of the feedback mechanisms have only been developed incremental over the past ten years (especially in non-teaching hospitals), and they seem the more important given the frequent mutations of the AGNIOs and recent changes in working hours. More formalised assignment of responsibilities and control mechanisms seem to be advisable but, in accordance with studies performed, hardly exists (BEDAUX AND KLAZINGA 1986, 1988, WEERSINK AND SCHOLTEN 1994) AGIOs and AGNIOs have over the years become a structural component of hospital care essential for realising the volume of specialist care. As the financing mechanisms of both the hospital (budgeting system) nor the specialists (fees) take this production function into account, a structural and effective form of manpower planning and formalisation of functions and responsibilities is difficult to find (KLAZINGA 1993). Recent proposals as a consequence

of the Biesheuvel plan (1994) include plans for central planning and funding of training positions (AGIOs), but provide no short-term solution for the AGNIO problem. Although recently the training programme for general practitioners has been extended to three years, including a one-year hospital-training period, it remains to be seen whether these 'training periods' for general practitioners in training (HAIOs) will be a substitute for the AGNIOs. In the meantime the variety of physician categories involved in delivering medical specialist care in the hospital and their quick turnover ask for improved formalisation of mutual tasks and responsibilities. This poses an additional incentive for further standardisation of care processes as part of more explicit quality management of medical specialist care.

The sub-paragraphs in 5.2 have so far explored the phenomena of medical staff, partnerships and house staff in Dutch hospitals. These infrastructures constitute the basis of the functioning of the specialist and the forum where political, economic and clinical autonomy manifests itself. These manifestations relate to interactions among medical specialists and specialties as well as to the interactions between medical specialists and hospital management. Quality-management activities i.e. activities set up to plan and control the quality of medical specialist care, are realised within the context of medical staff, partnerships and house staff and are subject to the different forces described in the previous paragraphs. In the following part of this chapter an overview will be given of concrete activities that can be considered as quality management of medical specialist care.

5.3 A MODEL FOR LISTING QUALITY-MANAGEMENT ACTIVITIES IN HOSPITALS

Between the years 1985 and 1988 CBO and the NZI (National Hospital Institute) have been involved in the 'Hospital Audit' project that aimed to introduce hospital-wide quality policies in three hospitals (KLAZINGA 1987, BEDAUX, DUBBELBOER KLAZINGA ET AL. 1988). In each of these hospitals, activities have started with an inventory of existing quality-management activities. For this inventory a three-level model has been developed that can be applied for activities on quality management for the hospital as a whole as well as for quality-management activities of medical specialist care. The three levels relate to a classic distinction in management theory between strategy, tactics and operational activities. These three levels can also be identified in the quality-management activities of medical specialists discerning *operational* management such as the practice of individual patient care (on the ward and at the policlinic), *tactics* such as the formulation of protocols and the evaluation of care based on homogeneous categories of patients (committee work) and *strategy* such as the discussions on overall

objectives and future directions of specialists care delivered in the hospital (medical staff). The planning and control activities on the three levels differ; it appears to be relevant to make this distinction (KLAZINGA 1991). A similar distinction is also made by Freidson when he states:

> *"Policy-making is split up in different levels: medical committees regulate a large part related to their own domains and the board of the medical staff controls the rest and also the access to hospital management."*
> (FREIDSON 1970, DUTCH VERSION 1981:111)

In more detail the three levels of quality management of medical specialist care can be described as follows:

- Level 1: quality-management activities performed daily and in direct interaction with the primary process of patient care and consequently mainly aimed at individual patients. These activities constitute the operational quality management of medical specialist care. All activities are directly linked with the ongoing primary process and its concurrent planning and controlling. Examples are clinical rounds, patient transfer, record-keeping and multidisciplinary meetings.
- Level 2: quality-management activities performed periodically, characterised by standardisation or monitoring of a specific part of the care process and usually related to homogeneous groups of patients (epidemiological approach). These activities constitute the 'tactics' of quality-management activities of medical specialist care. The activities are indirectly related to the ongoing primary process and are focused on prospective standardisation or retrospective evaluation with the aim to optimise or improve care processes within the framework of the objectives set. Examples are the various committee activities in areas such as infection control an drug use.
- Level 3: co-ordination of activities on level 1 and 2 in relation to the hospital as a whole and the context outside the hospital. These activities are considered the 'strategy' for quality management of medical specialist care. They concern the reformulation of the global objectives of the care processes in the hospital and the overall system design of health-care delivery. Examples are discussions on the introduction of new specialties or technologies and labour division between specialties.

This three-level model is applied here to clinical care activities initiated by medical specialists. However, the model can also be applied for other care processes executed in the hospital as long as the primary process of care delivery to individual patients is taken as the starting point. The activities included in this model are similar with activities provided in other listings of quality-management activities related to medical specialist care such as in publications by Reerink (1980) and Wilson (1992).

5.4 QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE ON THE OPERATIONAL LEVEL OF CARE DELIVERY TO INDIVIDUAL PATIENTS (LEVEL 1)

This category contains all activities performed by specialists characterised by communication and information transfer with the aim to guarantee continuity of care and process control. It constitutes all formal and informal events during which the specialist compares his expectations on the patients condition and progress with reality and acts when discrepancies are observed. Examples are daily clinical rounds (systematic review by bed-side visits), visit on paper (regular review of the patient by means of the medical record) clinical meetings (meetings of medical specialists at the beginning and/or the end of the day to discuss all patients currently staying at the department) and multidisciplinary meetings about specific patient categories (for example oncology patients) or to discuss clinical interventions (e.g. radiology meetings). Other examples of quality management of medical specialist care on the operational level are record-keeping, the writing of discharge letters to general practitioners and asking for consultation notes from other specialists.

In the quality norms for medical staffs of the LSV (1992, 1995 p. 51) a distinction is made between intra- and interdisciplinary meetings that should be existing in the hospital. As examples of intra disciplinary meetings: meetings on problematic patients, complications and patient transfer are mentioned. Interdisciplinary meetings include intensive-care meetings, clinical pathology conferences and oncology meetings.

5.4.1 The nature of quality-management activities of medical specialist care on the operational level

During *clinical rounds* the physician compares his/her expectations about the patient's condition with the real situation. At these occasions, a lot of information is exchanged between patient, nursing staff and the treating physician. This information exchange constitutes an important component of the realisation of quality; it can be considered as a moment when 'quality is built into the product' and different perspectives on quality are made explicit and can be balanced. This is especially true for the balancing of the aspects medical effectiveness and patient satisfaction.

Communication during the daily round should guarantee an adjustment of the perception of the clinician, referring to a medical decision-making model and its practical application, and the perception of the patient referring to individual values, beliefs and expectations. The communication during daily rounds is not a mere exchange of facts but it constitutes a process of validity testing, confronting a medical model with its possibilities for application on an individual patient (WIDDERSHOVEN 1994).

The same importance holds true for correct *patient transfers (discharge letters) and record-keeping*. They constitute the corner stone of continuity of care and process control and therefore are essential for achieving efficiency.

Multidisciplinary meetings can be considered as an interaction of clinicians from different specialties and other professionals where their combined expertise enlarges the predictive value of test results and correct diagnoses and treatment of individual patients and thus enlarges medical effectiveness. A special type of multidisciplinary meetings are the oncology meetings: here even the input of an external consultant has been institutionalised (oncology specialist under the aegis of the regional cancer centre).

A similar function is fulfilled by *intercollegiate consultations* and discussions with residents (AGIOs) and interns as part of their training. These examples are not limitative. In the regular working patterns of every specialist the elements can be identified that constitute the daily activities through which quality management is realised. It is important to note that 'quality' in accordance with the definition provided in chapter 1 is medical effectiveness as well as efficiency as patient satisfaction. At present in most of the activities related to concurrent monitoring of the care process mentioned above, quality is an implicit notion that is only made explicit on a limited number of aspects. The terms 'quality' and 'quality management' are hardly mentioned as such in an explicit way on the operational level of medical specialist care.

Therefore medical specialists reading this text will wonder what the difference is between 'quality management' and their normal practice. As a result of the traditional focus on peer review and guidelines development as quality assurance activities in the national debates (see chapter 3 and 4), the terminology is associated with 'committee activities' on the level of medical staff and activities initiated by scientific societies. With the introduction of the more industry oriented quality management approaches, as explained extensively in chapter 1, the scope has been extended and the distinction between medical management and quality management of medical specialist care has become less clear. Quality management is a tautology, but not without reason (see 1.4). This more modern use of the quality terminology has not been internalised in medical practice on the operational level as yet. Neither has it been demystified, so it can cover various attempts to change control on medical practice.

It can be concluded that operational quality-management activities are characterised by communication patterns and formalised information transfer that results in concurrent monitoring, thus enabling the planning and control of the ongoing care delivery process. Quality is 'built into' this process and is above all an implicit notion that only becomes the focus of explicit attention related to specific aspects such as clinical effectiveness. Given the importance of the communication in the adjusting of the application of the medical decision-making model to individual needs, it is evident that good patient/doctor communication is a crucial step in the realisation of quality care.

At the same time it underlines the importance of good communication between all health-care providers. Thus further development of quality management assumes multidisciplinary activities, involving nurses and allied health professionals as well as medical specialists (see also chapter 8).

5.4.2 *The development of quality management of medical specialist care on the operational level*

Observation of the existing working methods and especially communication patterns of medical specialists can identify where possible blind spots in quality control exist and where more systematic attention as part of the process control of patient care can help to improve quality in the broader meaning of the term. This is not only true for the activities at clinical wards, but can also be identified in the functioning of policlinics (waiting times), emergency rooms (triage/consultation procedures) and operation theatres (checklist anaesthesiology, counting of cloths). One of the conclusions of the hospital audit study was that on this operational level, especially for the activities relating to the interaction of specialists with other professionals as nurses, most activities are organised in a functional way, although very informal. As medical specialists and nurses formally belong to different organisational entities within the hospital (the dual organisation) the infrastructure for quality-management activities is not formally organised in accordance with the service unit where the patient receives his care. The creation of linkages between the working patterns of the nursing staff at a certain ward and the specialists attending patients at that ward is highly informal and based on a negotiation model between two professional groups (NIEVAARD 1986). Where more rigid forms of process control have been introduced through formalised standardisation of procedures and evaluation, this could only be related to the complexity of the medical performance related to technology and size of the organisational unit (STEVENS 1987). This can be explained rather as bureaucratic adaptations within the realm of professional performance than as adaptations of professionals to a bureaucratic organisation. Simultaneously, the development of quality management in nursing is manifested rather as professionalisation of the nursing profession (i.e. nursing audit, nursing standards) than a strengthening of multidisciplinary care management. Thus quality management runs the danger of enforcing barriers between professions instead of being instrumental in linking them.

Formalisation of forms of operational quality management takes place in an organisational infrastructure where mutual responsibilities are not formalised, thus leaving the realisation to negotiation between individual professionals (doctors/nurses) or the mutual felt need for uncertainty reduction (complexity through size or technology). Initiatives to give the specialist a formal responsibility in the management of a clinical ward ('management participation') may help to provide a better organisational context

for the care delivery. However, the danger remains that through further bureaucratisation of the communication processes with the patient, based on clinical, ethical and legal considerations, an important part of the reality of the communication is neglected; the actual debate between the treating medical specialist and the individual patient as a prerequisite for quality.

5.5 QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE ON COMMITTEE LEVEL (LEVEL 2)

Type of committees and scope of activities

This level consists of a variety of activities that all have in common that with respect to a specific element of the care process standardisation takes place and/or monitoring is performed, respectively by setting norms and assembling data on medical practice. The activities are usually organised in the format of a committee. In general, committees exist on topics that are considered too complex to deal with sufficiently on the operational level. Over the years the number of committees in Dutch hospitals has increased. Part of these committee activities are initiated by the medical staff but an even larger number is initiated on the initiative of hospital management. An ordinary hospital has many formalised communication structures and the average number of committees related to quality is estimated to be between 25 and 30 based on inventories in several hospitals (WIJMEN F.C.B. CARPAY J.J. 1992, BRANDS 1995, TEN HAVE 1993, KEESSEN 1994, VAN DOM 1992, DE BOER 1995). These same inventories show that only part of the committees are supposed to go through the full quality circle of standardisation, assessment, implementing change and evaluation. When a committee has the task to cover the 'full circle', only a few manage to do so. The majority of the committees confine their activities to one or two of the phases of the PDCA circle. Quality aspects addressed through the committee activities are mostly related to medical effectiveness and efficiency of the care delivery. Patient satisfaction and satisfaction of personnel get less attention but are also the subject of committee activities (BRANDS 1995). The existence of some committees in Dutch hospitals is mandatory. On the waves of the planning discussions in the seventies, several specific norms and standards have been formulated for the licensing of hospitals. These norms were formalised in 1977 through the Act on Hospital Licensing (*Besluit eisen voor erkenning ziekenhuizen*). This legislation is a form of indirect regulation through which government tried to guarantee the quality of hospital care (ROSCAM ABBING 1987). In 1984 the licensing act was updated and some additional norms and standards were included, especially in relation to the existence of hospital committees. By law the following activities became mandatory: an accident committee (art. 2.4.2), a drugs committee (art. 2.4.3) and a committee on

medical experimentation (ethics committee) (art. 7.5.1). Furthermore, this law made it mandatory to have 'one or more structural activities for the systematic assurance of the quality of care' (art. 2.4.1). This last article is formulated in such general terms that it leaves sufficient room for self-regulation. It is often interpreted as making it mandatory to have a peer-review committee.

Specialists are represented in many of the mentioned committees. Most of the mandatory committees are considered by hospital management as 'hospital committees' as opposed to 'medical staff committees'. In many hospital annual reports this distinction is made, illustrating once more the dualistic nature of the hospital organisation. The LSV has made their own selection of committees they deem necessary. A listing of these selected committee activities is included in the criteria formulated by the LSV committee on quality that developed and executed a (pilot) visitation programme for medical staffs (LSV 1990, 1992). This selection consist of the accident committee, the drugs committee, the infection committee, the complaints committee (or procedures), the committee on quality (including peer review) and the medical ethics committee. Furthermore, the following committee activities are recommended by the LSV: a budgeting committee, a complication committee, an intensive care committee, a records committee, an autopsy committee, an operation-theatre committee, an oncology committee and a committee on the medical policy plan as part of the overall hospital strategy (LSV 1995 PP. 53/54).

Surveys on the existence of committees

Several attempts have been made over the years to make an inventory of existence and the functioning of committees in Dutch hospitals. The 1974 annual report of the LSV mentions inventory activities of its committee on hospital staffs. It is reported that the results on an inquiry with a response of 100% show that 50% of the hospitals has in 1974 an accident committee and a total of 48 hospitals (approximately 27% of the hospitals) has a peer-review committee. These results are interpreted by the LSV board as rather positive.

In 1975-1976 Docter-De Leeuw and Van der Waes performed a study under the aegis of the Hospital Association (NZR) on the care delivered in small and medium-sized hospitals. As part of their study, covering 118 hospitals, they made an inventory of existing committees and they report percentages of incident committees (37%), infection committees (71%), drugs committees (32%) and peer-review committees (25%) (DOCTER-DE LEEUW, VAN DER WAES 1975).

A study of participation and democratisation in hospitals carried out in 1978 (MEURS, 1982) included an inventory of committee activities in a sample of fourteen hospitals. This study mentions the existence of respectively incident committees (57%), infection committees (86%), drugs committees (21%) and peer-review committees (64%).

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In 1984 an evaluation of the licensing standards of hospitals is executed by the department of medical law of the University of Limburg (ROSCAM ABBING 1986). The investigators conclude that none of the responding hospitals (75 out of 163) meet all standards. Although this judgement sounds negative, it is mainly based on the lack of available formal by-laws and procedures in writing in the hospitals. The situation with regard to committee activities doesn't seem to be that gloomy. With respect to peer-review committees 80% of the hospitals respond in 1984 that they have a committee in place and the remaining 20% refer to existing autopsy meetings and oncology meetings. However, only 30% of the hospitals have a set of formal by-laws that regulate the functioning of peer review (HAMILTON-VAN HES, 1986).

As part of the COMAC/HSR/QA study in 1990 an inventory was made of existing committee activities related to quality management (KLAZINGA 1994). A total of 262 hospitals in 15 countries participated in this study, among them 15 Dutch hospitals. The following results where obtained for the reported existence of committees in the 15 Dutch hospitals and the overall group of 262 hospitals: incident committees (NL 100%, EURO 25%), infection committees (NL 100%, EURO 79%), drugs committees (NL 100%, EURO 73%), peer-review committees (NL 100%, EURO 20%), autopsy meetings (NL 77%, EURO 36%), record committees (NL 70%, EURO 44%), blood-transfusion committees (NL 70%, EURO 20%). Although these results are not representative for all European and/or Dutch hospitals and the validity of the data is subject to linguistic and cultural biases, they provide an impression on the relative interest in different topics as reflected in the existence of committee activities. The data suggest that infection committees and drugs committees are well established committee activities all over Europe and that committee activities related to autopsy meetings and medical records are common. Compared with the European data, Dutch hospitals seem to have relatively more accident committees and medical audit/peer-review committees: a finding consistent with data from the Dutch studies from an earlier date mentioned before. As has been explained for peer review (4.5.1-4.5.5) and will be explained for incident committees (5.5.2), specific national policies have probably played a major role in the relative popularity of these two types of committees in Dutch hospitals.

The following committees will now be discussed in more detail because they seem by nature and scope a good representation of quality-management activities of medical specialist care through committee activities: the autopsy committee, the incident committee, the infection committee, and the drugs committee. For each of these committees their history in the Dutch hospital context will be described briefly and compared with the situation in other (European) countries. The 'why, what and how' questions of chapter 2 (2.7) will be answered successively. The peer-review committee is excluded from a specific discussion in this chapter because its nature and development have already been discussed in 4.5.1-4.5.5 and will be the subject of further analysis in chapter 6. A general discussion on the functioning of committees as mechanisms for

quality management of medical specialist care follows at the end of this paragraph (5.5.5).

5.5.1 Autopsy meetings and autopsy committees

Autopsy meetings are one of the oldest forms of peer review in which evaluation of health care takes place, based on the results of an autopsy. Findings of the pathologist have over the years been a source for scientific development and medical education and can also be a source for quality management when they are compared with the findings of the clinician. These findings can be discussed on a case-by-case basis (traditional autopsy meetings; these could be categorised as level 1 activities), or, especially in larger hospitals, organised through a committee. This autopsy committee can make a selection of cases for further discussion and/or can provide an overview of the overall results over a certain period of time (KUIPERS 1975, VAN DER ZALM 1975).

History and function of autopsy meetings and autopsy committees

The word 'autopsy' is derived from Greek, meaning 'seeing oneself'. Hence it linguistically constitutes medical self-evaluation *avant la lettre*. Throughout the centuries, the history of medicine has been linked to the execution of autopsies (Hippocrates, Harvey, Vesalius, Osler) (MCPHEE ET AL. 1985, KING ET AL. 1973, SCHILLINGS ET AL. 1991, CAMERON, 1983). In the last decades, a decline in autopsy rates, including autopsies on patients who died in the hospital, can be seen. This has led many pathologists and clinicians to express their concern in medical journals and to make a plea for a renewed interest in post-mortem examinations (FRIEDERICI, 1988; ROBERTS, 1978, ROBINSON 1983, BOERS 1989). In The Netherlands Bosman (1990) has explored the underlying arguments and has stated that it is not so much the negative opinion of the public towards autopsies as the changing attitude of the physician that creates the 'self-fulfilling prophecy' of decline in the number of autopsies. Numerous international studies have, however, shown the usefulness of autopsy meetings as an instrument to evaluate the clinical judgement. In The Netherlands, studies showing the large discrepancies between clinical diagnoses and findings of the pathologist have been performed by Kuijjer e.a. (1963) (autopsy percentage 60%, errors identified in 20%), Van Rijssel (1985) (autopsy percentage 50%), Steffelaar (1979) (inaccuracy in 42% of autopsies), De Vries et al. (1986) (unexpected findings in 68%), Smedts (1989) (over-reporting of myocardial infarctions and under-reporting of bronchopneumonia in national statistics compared with autopsy data), and Barendrecht (1992) (autopsy percentage 51%, inadequate use of diagnostic methods 10%, incorrect therapy 16% with negative consequences in 11% of patients).

Data from literature show that although the possibilities for (radiological) diagnostics have improved, discrepancies between clinical diagnosis and pathological findings

shown at autopsy still occur in percentages of cases that are not substantial better than in the past. Reported discrepancy rates vary between 5% and 25% depending on methods of selection of cases and on methods of investigation (ANDERSON 1984). During the last decade, autopsy meetings are considered as part of quality assessment activities, and minimal obduction percentages (65%), regular review of cases with major discrepancies and systematic data collection were proposed (ANDERSON 1989, 1990, HARRISON 1989, UNDERWOOD 1989). Also in The Netherlands autopsy meetings are perceived as part of the necessary quality-management activities in hospitals and CBO has published a report on the organisation of autopsy meetings (KLAZINGA, 1985).

Findings on autopsy meetings and autopsy committees in the COMAC/HSR/QA study

As part of the COMAC/HSR/QA study several questions were posed to the participating hospitals with respect to autopsies. Of the 267 hospitals that participated in the assessment phase in 1990 36% reported that they had an infrastructure for the review of autopsies (either regular meetings or a committee). In the subgroup of 113 hospitals that participated in both the assessment (1990) and the evaluation phase (1993) a total of 48%/44% reported that they had an autopsy committee or regular autopsy meetings. The average number of autopsy meetings per year reported is 5.1, and the meetings are attended mainly by physicians (96%) and to a minor extent by nurses (43%) and representatives from hospital management (31%). When asked whether the hospitals know their annual autopsy rate, 71% answer affirmative in 1990. This percentage is still 75% in 1993 for a subgroup of hospitals that answered the question in 1990 and 1993. The rate reported by hospitals varies between 3 and 87.5%.

From the 15 Dutch hospitals that participated in the assessment phase of the project 11 report that they have an autopsy committee. The Dutch committees are composed of physicians; in one hospital the medical director is reported to be present at the autopsy meetings. From the 15 hospitals 12 have stated in 1990 that they know their annual autopsy rate and the average rate reported is 27%.

The Dutch situation in international perspective

The situation in The Netherlands on autopsies and the changing role of the pathologist seems similar to the situation in other European countries and the USA. In Sweden there is also a decline in the percentage of autopsies reported for a university hospital from 80% to 39% in the period 1977-1988, showing improvement as well as worsening of the accuracy of clinical diagnostics for different diseases (VERESS B, ALAFUZOFF I. 1993). The overall autopsy rate in Sweden in 1993 was approximately 30% and the change in attitude of clinicians towards autopsy seemed to be a more important explanatory factor than the endorsement of the Autopsy Act of 1976 or the reluctance of relatives to give consent to the autopsy of a relative (ERIKSSON L., SUNDSTRÖM

C., 1993). In Denmark a similar decline in autopsy rates can be observed from 45% in 1970 to 35% in 1980 and 24% respectively 16% in the first and second half of 1990. However, here the 1990 Autopsy Act that makes informed consent of relatives mandatory, is brought forward as a major external factor (PETRI CNA 1993). For the USA autopsy percentages are reported of about 12% in 1985 and below 10% in the nineties with only limited support for revitalisation of autopsies (HILL RB, 1993). The only countries where autopsy percentages still seem to be high as reported in the assessment phase of the concerted action programme on quality assurance in hospitals are Austria and the Northern parts of Italy (reported percentages of 100% from several hospitals). An explanatory factor might be the fact that an autopsy is here still a legal prerequisite, introduced by empress Maria Theresia around 1748 who was advised to do this by the Dutch clinician Van Swieten (F. SILVESTRI ET AL., 1988).

Changing reasons behind autopsies and autopsy meetings in The Netherlands

Reasons to conduct autopsies and hold autopsy meetings are still valid when referring to the domain of medical effectiveness. It seems, however, that these rational reasons are slowly eroded by opinions on the acceptability of the autopsy by both the public at large and part of the medical profession. Cultural values towards death and dying change and seem to have influenced both the willingness of the physician to ask for permission to perform an autopsy and the willingness of the relatives to grant permission. Together with notions on the changing position of the pathologist (more interest in histological work) (DE RUITER, 1988, GIARD 1995) and the discussion on the costs of autopsies (REERINK, 1988), this has created a climate where reinforcing autopsy meetings is difficult. With the introduction of AIDS the protagonists of autopsy meetings seemed to have found a new argument (VAN DEN TWEEL, 1990).

Objectives and methodology of autopsy meetings

With an autopsy meeting four different goals can be met:

- the evaluation of the clinical diagnosis;
- the evaluation of the correctness of the therapy and evaluation of the side effects of the therapy;
- evaluation of care given during the terminal phase of a patient;
- evaluation of the clinical policy in general, based on an overview of causes of death and found discrepancies between clinical findings and results of the autopsy.

The term 'evaluation' in these objectives covers scientific curiosity as well as quality assessment. To fulfil all four objectives two types of autopsy meetings can be discerned: meetings where individual cases are discussed and meetings where overall results are discussed. In most hospitals the first type of meetings can be found where, depending on the size of the hospital and the percentage of autopsies, all deceased

patients are discussed or a selection is made of a series of interesting cases (ALAFUZOFF I., VERESS B, 1993). The second type of meetings ask for a systematised data collection and can be held once or twice a year, depending on the size of the hospital and the number of autopsies (STEFFELAAR, 1979).

Traditionally, the pathologist of a hospital plays an important role in the conduct of autopsy meetings. For teaching hospitals there is a formal obligation, related to the teaching status, to hold autopsy meetings, but in general hospitals it is left to the initiative of the medical specialists. When the interest of specialists is lacking and the pathologist has not enough influence and/or interest to get autopsy meetings off the ground, there may be no formal autopsy meeting at all. With the introduction of a visitation programme for medical specialists in non-teaching hospitals (4.4) a new external stimulus to introduce autopsy meetings has been given, notably by the scientific society of surgeons.

For a proper execution of autopsy meetings the use of an 'autopsy form' is promoted. This form has to be filled out first by the clinician providing the necessary clinical information on the diagnosis and treatment given when the patient was still alive and the formal cause of death. With regard to the cause of death the clinician has to score one out of nine categories for causes of death. These scoring categories developed by pathologists (KUIPERS 1975) were adopted by the LSV and are also mentioned in the report in 1976 that introduces peer review in Dutch hospitals. The form and scoring categories have to be completed by the pathologist after the autopsy. Difference between the scoring in the categories of causes of death between clinician and pathologist can easily be identified and is a good starting point for discussions during autopsy meetings.

In hospitals where autopsy meetings are held regularly the procedures of the discussion have been standardised. Standardisation of the procedure helps to guarantee a fair and open discussion where the aim is to teach and not to reproach (CHARLTON 1994). Several hospitals report (and publish) about their overall results with respects to causes of death and autopsy results; these are mainly the university and teaching hospitals. Simultaneously, the role of the pathologist is changing: more can be done with less material and the focus has shifted from autopsies towards biopsies. The role of the pathologist towards the assuring of the quality of medical specialist care remains, however, an important one (GIARD 1995).

Concluding remarks on autopsy meetings and autopsy committees as a dying method for quality management of medical specialist care

The rationale of autopsy meetings as an instrument for management of the effectiveness of medical specialist care still stands but is eroding through a series of other arguments. Acceptability by clinicians as well as the public at large seems to play a dominant role in the decline of the number of obductions and legislation can

influence the situation either through promoting (Austria) or discouraging (Denmark) autopsies. The role of relatives in the decision to perform an autopsy increases and emotive arguments are balanced with medical 'scientific' arguments. Meetings on autopsy results are standardised through formal procedures and explicit structuring of clinical information and opinions of clinicians and pathologists is sought with the help of obduction forms. The execution of autopsy meetings in general hospitals is voluntary. However, external incentives through visitation programmes for teaching hospitals and recently for non-teaching hospitals are present. Although scientific curiosity and the need to learn are important factors for physicians to attend autopsy meetings, the meetings hardly fulfil all steps of the PDCA cycle. Sometimes the 'lessons' are obvious and change is implemented immediately (i.e. adaptation of a clinical procedure or technology), but usually the drawing of firm conclusions and implementation of change remain implicit. Pathologists play a major role in the execution of autopsy meetings. However, their working domain is gradually shifting from autopsies towards biopsies, so they do not merely provide feedback on the outcome of medical care but are actively involved in the decision-making related to the medical care process. This new image of the pathologist, concentrating more on living patients, seems to be appealing to many of them.

Hence, a cluster of technological, cultural, legal and intra-professional factors seem to direct the autopsy meeting to a less prominent place as a mechanism for quality management of medical specialist care.

5.5.2 Incident committees

Recent history of incident reporting in hospitals in The Netherlands

In the seventies the reporting of incidents in Dutch hospitals was formalised through the institutionalisation of FONA committees (Committee for Faults, Accidents and Near-accidents). The initiative for the harmonisation of incident reporting was taken in 1968 by the National Hospital Council (NZR). The main aim, expressed in a NZR policy paper issued in 1970, was to determine whether a formal responsibility existed for professionals and hospitals to report accidents and near accidents to 'third parties' such as the patients and the financiers. The Dutch Specialist Organisation (LSV) has reacted on this report stating that incident reporting should primarily be considered as a preventive function. In 1974 a working party of NZR and LSV issued a report that emphasised both goals: gathering information on incidents as a means of accountability to third parties and as a basis for evaluation and prevention. In this report the 'rules of conduct with respect to the reporting of incidents' were given. Since the seventies hospitals have started to set up incident-reporting committees: official hospital committees with participation from the medical and nursing staff. Since the

early eighties this even became a legal obligation for all hospitals (rules on the licensing of health-care facilities in the law on hospital facilities). An evaluation in 1984 on the functioning of these committees has shown many problems (ROSCAM ABBING, 1985). Incidents reported were mainly related to accidents (with a high frequency of reports on patients falls) and medication errors. Almost all reporting of incidents is done by the nursing staff and only to a minor extent by medical staff. A similar study in 1988 (DOORNBOSCH-HOEDEMAKER) confirmed the earlier findings.

As a result of the dissatisfaction with the existing situation the formal rules for the reporting of incidents were changed and on national level a new terminology was introduced: the term 'faults and near-accidents' was replaced by 'incidents' and the FONA committee was renamed *Meldingscommissie* (Incidents-reporting committee). Although policy-makers tried to stress with this renaming exercise once more the preventive function of the committee, many underlying problems remained unresolved. Both the FONA committee and the *Meldingscommissie* were not functioning the way the initiators had hoped.

Reasons for the dysfunctioning of incident committees

Casparie (1989) and Casparie and Buruma (1993) give four reasons for the malfunctioning of the incident-reporting committees:

- the psychological resistance against the reporting of incidents;
- the double function of the committees (accountability and prevention);
- the meaning of the 'fault' concept;
- distrust in the functioning of the incident-reporting committee (expertise, delay in drawing conclusions, hierarchical position of committee members in relation to the reporting professionals).

Touw (1990) makes a similar analysis and stresses the need for a more decentral approach of problem handling by the professionals themselves instead of a central hospital committee. He also stresses the need for confidentiality of the information.

During a national meeting on the functioning of incident-reporting committees in 1990 (University Hospital Leyden, initiated by Prof. drs. A.Th. Schweizer), and a second one in 1992, participants agreed (again) that the preventive function of the incident committee should be its most important aim and a common description of relevant criteria for reporting was proposed:

> *"Every incident in health-care delivery with a (potential) damaging effect for the patient, excluding calculated risks such as complications."*

Agreement was also reached on a minimum data set that should be present on the incident-reporting forms in all hospitals including a detailed account of the incident, consequences for the patient and the cause of the incident in the opinion of the person reporting.

Findings on incident committees in the COMAC/HSR/QA study

Of the 262 hospitals that participated in the assessment phase of the concerted action programme on quality assurance in hospitals in 1990 a total of 25% reported that they have an incident committee. This reported percentage was 100% for the 15 participating Dutch hospitals.

This high percentage is most likely due to the mandatory nature of incidents committees in The Netherlands. In other countries positive responses to this question varied, for example 26% in Belgium (N = 35), 30% in Denmark (N = 30) and 20% in Spain (N = 65). A Norwegian study reports that in Norway, where no legal obligation for incident reporting exists, 30% of the hospitals that responded to a survey (Nt = 70, Nr = 58) state that they have an accident committee (MELSON H., JONSBU J., MØRK T. PIENE H., 1991). Compared to other European countries the situation in Dutch hospitals with respect to the functioning of an incident committee as a mechanism for quality management seems rather favourable. It is unclear to what extent other countries are preparing legislation on this topic (in Belgium regulation passed Parliament in 1987). Based on the country reports of the COMAC/HSR/QA project one gets the impression that the functioning of incident committees is not only discussed in relation to quality management of medical specialist care but also in relation to risk management (related to legal liability of the hospital towards patients) and safety at the working place (related to occupational safety policies).

Dissolving of incident committees in risk-management and safety management

During the period 1990-1996, the position of the incident committees in Dutch hospitals has been eroded through the gaining popularity and institutionalisation of risk management, safety management and management of occupational circumstances. New legislation on occupational circumstances (ARBO), environmental issues and safety of instruments have forced hospital management to set up internal activities partly similar to quality-management activities of the incident committees. Policies of insurance companies and a changing liability situation have influenced the introduction of claims management and, from a broader perspective, risk-management. Through these new developments, management interest in incident reporting has shifted from an ad-hoc interest in accidents towards a system development approach, where safety and risk-management are perceived complementary elements to the overall quality system in the hospital (KLAZINGA AND KREMER, 1993).

Concluding remarks on incident committees as an instrument for quality management of medical specialist care

The introduction of incident-reporting committees in Dutch hospitals in the early seventies has its roots in national initiatives where both the aim of accountability

(stressed by hospital management) and prevention (stressed by medical specialists) played a dominant role. The process was enforced by making incident reporting an obligatory act in hospitals. In retrospect, the introduction of incident committees was rooted rather in the external wish for accountability (as enforced by several publications on the legal aspects of faults and incidents) than in the professional wish to use incidents as departure points for learning and improving. Medical specialists participated in the policy discussions on national level and incident committees on local level to maintain professional control over a sensitive area as medical mistakes. Over the years, however, agreement seems to have been reached between professionals and management that the incident committee should be considered as an element of the overall quality system of the hospital, and is thus primarily oriented towards prevention. Together with this standardisation of the objectives, standardisation of information gathering was sought (similar to the reporting procedures for autopsy meetings mentioned in the previous paragraph) thus improving the reporting procedures. Despite these attempts, the functioning of incident committees does not seem to cover the full PDCA cycle. It remains a problematic mechanism for influencing the behaviour of medical specialists.

Apart from standardisation of objectives and procedures, standardisation was applied on the inclusion criteria. Over the years the concept 'fault' was redefined as 'incident' and has successively been described in more explicit terms by making a distinction between 'incidents' and 'complications'. This 'new' terminology has opened the way for medical specialists to discuss their errors in the realm of complication meetings of their specialty group rather than in the hospital incident-reporting committee. Hence, discussion of incidents within the professional realm has been legitimised. At the same time managerial interest in incident reporting has broadened towards the domains of risk management and ARBO systems (systems to assure proper occupational circumstances).

Quality systems are built on trust and trustworthiness; the history of incident committees in The Netherlands shows how difficult it is to reach this balance on issues that are highly sensitive to the professional but can have a major impact on the patient. Moreover, the history of incident committees demonstrates how labels can change and the evaluation of similar phenomena can shift to seemingly other domains with a new central focus, partly based on new external influences. An ideal balance between individual accountability and prevention through system development has not yet been found.

5.5.3 *Hospital infection committees*

Recent history of infection control in Dutch hospitals and the professionalisation of the infection control nurse

The prevention of hospital infections has a history as long as that of the hospital itself. The roots of the present functioning of hospital infection committees in Dutch hospitals can be found, like peer review and incident-reporting committees, in the early seventies. In 1976 the Health Council of The Netherlands issued the report *Preventing Hospital Infections* (HEALTH COUNCIL, 1976, ENGLISH VERSION 1979). This report has provided detailed guidelines for the prevention of hospital infections, related to the various departments and type of activities in the hospital. A special paragraph was devoted to 'Hospital management and how it affects the problem of hospital infections'. Here, the following recommendations were made:

- An infection control team should be established in all hospitals.
- The infection control team should have an advisory function.
- When hospital management decides to carry out the measures proposed by the infection control team, management should implement them with the aid of the infection control nurse.
- The medical staff and management of the hospital should also submit their own proposals and suggestions for prevention and control on hospital infections to the infection control team.
- Regular contact between the chairmen of the infection control teams and the infection control nurses at the hospitals in the area is essential.

According to the 1976 report, the task of the infection control team was to record the infections that occur in the hospital, to study the epidemiology of these infections and to propose measures to prevent and combat them, thus covering the full PDCA cycle. With respect to the composition of the team it was stated that the bacteriologist/epidemiologist should always be a member and that the group should meet at least once a month. At every meeting the infection control nurse should report her/his activities during the preceding month. Detailed duties of the infection control team, according to the report, were:

- designing a system for the notification and recording of infections;
- producing a disinfection policy;
- advising on hygienic measures in the hospital;
- sterilisation procedures;
- isolation of patients;
- admission policy;
- admission of patients with infectious diseases;
- the use of antibiotics;

- protective immunisation of physicians and other hospital staff;
- advising management in case staff members suffer from an infectious disease;
- advising on the purchase of certain types of furniture and medical equipment, building alterations and new buildings and performing epidemiological investigations when necessary.

Although this list seems rather extensive it remains unclear to what extent the infection control team has merely an advisory role or should act by themselves.

In the following paragraphs of the 1976 report the tasks of an infection control nurse were described in more detail, trying to make the domain of this new medical profession more explicit in relation to other professionals in the hospital. The relation between hospital management and medical specialists with respect to responsibilities for infection control seems less clear, as is demonstrated by the following quote:

> *"The infection control team has an advisory role for the various professional groups and sections in a hospital. Each of its proposals should be discussed with the group involved before a definite recommendation is submitted to the hospital management. The management then decides whether or not the measure proposed should be implemented and, if so, who is responsible for the implementation."*
> (HEALTH COUNCIL 1976 PP. 32-34)

Ever since the issuing of this report in 1976 the position of the microbiologist and the infection control nurse towards each other and their formal role with respect to the infection prevention in Dutch hospitals, has been a topic of debate (DEGENER, 1989; SIEM, 1989; PAARDEKOOPER AND VEERMAN 1989, KOELEMAN ET AL. 1995, PAARDEKOOPER ET AL. 1996). In 1989 the association of infection-control nurses produced their own 'professional profile'. This 'job description' got even more formal status in the 1993 report of the Inspectorate of Health on the role of the infection-control nurse (SIEMONS, 1993). The institutionalisation of the infection control function in hospitals through infection committees (the English 'Infection Control Team' was renamed 'Infection Control Committee, in line with the Dutch committology jargon in hospitals), has forced microbiologists and infection-control nurses to co-operate, but their mutual position has remained a matter of debate.

The infection control committee

Unlike incident committees and drug committees, the existence of a hospital infection committee in a hospital did not become explicitly mandatory through the rules on licensing of health-care facilities in 1984. However, article 9 mentions that:

> *"The hospital should take care that an active policy is in place towards hospital hygiene and the prevention, monitoring and combatting of nosocomial infections."*

The need for hospital infection committees has never been questioned and among the existing quality assurance committees in European hospitals they seem to be the most popular. The answers on the assessment questionnaire of the concerted action programme on quality assurance in hospitals (COMAC/HSR/QA, 1990) showed that of 262 hospitals, 79% have an infection control committee. This percentage is reported to be 100% for the 15 participating Dutch hospitals and also 100% for the 42 Belgian hospitals, where an infection committee is also a legal obligation. In the Dutch hospitals physicians, nurses and in most cases hospital managers are member of the committee.

Guidelines for antibiotic use (standardisation)

As recommended in the report of the Health Council (1976), the formulation of guidelines for antibiotic use has become a popular activity of infection control committees. The increase in sepsis caused by an increase of patients with a dysfunctioning immune system (i.e. oncology treatments, AIDS) and the rising problems with bacterial resistance against antibiotics (i.e. MRSA) have over the past decade only enforced this interest. In 1989 an inventory was made of the existing guidelines on antibiotics use in Dutch hospitals (VAN EVERDINGEN, KLAZINGA, VAN DEN BROEK EN STEENHOEK, 1990). A total of 37 sets of guidelines applied in 71 of the 140 Dutch hospitals were sent on a voluntary basis to CBO for review. The following conclusions could be drawn from the evaluation:

- Advice provided in the sets of guidelines was formulated in a far less formal way than recommended in the 1976 Health Council report.
- A recent trend in antibiotics use (treatment of sepsis with second generation cephalosporines whilst not using cephalosporines from the first and third generation) was reflected in the set of guidelines.
- The idea to make a distinction between the type of antibiotics used for prophylaxis and for therapy was hardly applied in the sets of guidelines.
- Specialty, disease entity, organ or causal agent were used far more often as the entry points in the index of the guidelines than a clinical problem as such (for example sepsis with unknown causal agent).
- Evaluation of the guidelines through the linking of clinical data, data of the microbiological laboratory and data of the pharmacy was only possible in very few hospitals.

At the time of the survey most hospitals seemed to have guidelines on antibiotic use, although there was still a lot of variation among the nature of the guidelines. In several regions the guidelines were developed in co-operation with the regional microbiology laboratory so the same guidelines were applied in several hospitals at the same time. The interest in the use of antibiotics in hospitals seems to be growing,

partly because of the associated costs and also because of the problems with multiple resistance against new antibiotics (DE MARIE AND VERBRUGH, 1992 JANKNEGT ET AL. 1995, CASPARIE 1989). These problems do not seem to be restricted to The Netherlands and especially the resistance problem is reported to be high in countries in Southern Europe (DORNBUSCH K, 1990). In The Netherlands, the Health Council (1977) promoted an active policy towards the use of antibiotics and the RIVM (State Institute for Public Health and Environmental Control) has set up a surveillance on the development of resistance of bacteria against antibiotics (VAN KLINGEREN 1992).

The COMAC/HSR/QA project showed that of the 262 participating European hospital 65% has guidelines on antibiotics. This percentage was 100% for the Dutch hospitals and it was reported that different clinical specialties, micro biologists and often pharmacists, were involved in the formulation of the guidelines.

Apart from guidelines on antibiotic use, infection control committees have produced an extensive amount of guidelines, brochures and instruction documents on the prevention of hospital infections in general. Several national initiatives have been taken over the years to standardise terms and procedures of infection control such as the recommendations of the WIP (working group in infection prevention). A national guideline on prevention of hospital infections was provided through a national consensus conference in 1989 (see also chapter 7) (MOUTON 1990). This conference was organised on the initiative of both the scientific associations of microbiologists and infection control nurses.

Uniformation of infection surveillance (registration)

One of the elements that became evident in the maturation process of infection control in Dutch hospitals through institutionalisation (committees, personnel), and guideline development, was the need for the improvement of the registration of hospital infections. Although up to the nineties the need for a (uniform) registration system of hospital infections has been expressed, the actual situation was quite diverse. During the eighties only a minority of hospitals applied a specific methodology for infection surveillance and the level of standardisation was low (DANOP WORKSHOP CBO 1990). As a follow-up to the consensus conference in 1989 an initiative was taken to start with two national activities: a multidisciplinary working group with the task to write an advice on the necessary surveillance methodology for hospital infections (WIRZI 1995) and an action programme for hospitals that wanted to make a start with the introduction of a registration system, using software developed on the initiative of WHO/EURO (DANOP, WHO-CARE since 1991, SWIFT since 1994). The action programme, co-ordinated by CBO, met enthusiastic response among hospitals, especially among hospital infection control nurses. After a project with the participation of 30 centres on post-operative wound infection (1992/'93) a second programme was

launched in 1994, again on post-operative wound infections and infections at intensive-care units. These action programmes were primarily set up to facilitate the development of systematic computer-aided infection registration in hospitals. However, they also provided a basis for comparison between hospitals. International comparison became possible (MERTENS, VAN DEN BERG ET AL. 1994).

Apart from the introduction of more standardised and systematised infection surveillance systems in hospitals (i.e. MINTJES 1996), peer-review studies on topics related to infection control have been performed (e.g. STURM, 1985). Sometimes these studies can take place under the aegis of the infection committee but it can also be an initiative of the peer-review committee or the drugs committee (antibiotic use).

Concluding remarks on infection committees as a mechanism for quality management of medical specialist care

The existence of infection control committees is one of the consequences of the general concerns about hospital infections and, especially during the past 15 years, problems related to the costs (both in price and volume), side effects and multi-resistance of bacteria to antibiotics. External initiatives (Health Council, Consensus Conference, CBO Action Programmes) are contingent with the activities in the hospitals. The professional groups of microbiologists and infection-control nurses are the most dominant actors in the further development of the infection control function and their involvement bears all the characteristics of professionalisation (claiming a specific domain, trying to obtain national/legal recognition, quality promotion through guideline development and national associations that publish policy reports and 'professional profiles'). Standardisation of terms and procedures for infection surveillance has been realised up to a certain level. Informatisation and the use of hospital based data for inter-hospital comparisons have started. Elementary links have been established between local monitoring activities, aimed at the behaviour of clinicians and nurses, and national activities aimed at the monitoring of the epidemiology of infections and resistance patterns.

Infection committees seem to trigger more mature quality-management activities. Problems are identified, criteria are formulated, surveillance is more or less in place and feedback is provided to the clinicians as well as to the experts that formulate the criteria (e.g. local antibiotic policy based on hospital specific resistance patterns). Hence, the whole PDCA circle seems to be covered (see also MINTJES 1996). The development and functioning of infection committees also illustrates all the influencing factors identified in the previous chapters: external context (government regulation), professionalisation (of infection control nurses but also of microbiologists), management development (responsibility of hospital management, mediating in a multidisciplinary situation, integration into the whole organisation). The shaping of the quality management

function of infection control depends on forces inside as well as outside the hospital. With the further standardisation of terms, procedures and data collection the need for integration of the infection control activities within the work of the clinicians seems critical, to assure a feedback loop that does not only meet the objectives of the optimisation of the (local as well as national) monitoring procedures but results in actual change of behaviour in practice. The danger exists that further bureaucratisation of the infection control function takes it away from the realm of clinical medicine into a separate domain of microbiologists and infection-control nurses. This can only be avoided through active involvement of clinicians in infection control activities. Infection control committees can be an important instrument to assure the link with clinical practice.

5.5.4 Drugs committees

Recent history of the development and nature of drugs committees in Dutch hospitals

Like the infection committee, the reasons for the existence of a drugs committee are a mixture of professional, managerial and social concerns. The professional concerns are related to the proper use of pharmaceutical products for the right indications and to the prevention of side-effects. The managerial reasons are partly logistic (do patients get the right drug in the right dosage at the right moment) and partly economic (costs of drugs). Social reasons are also related to the costs of drugs (both type and volume), attempts of government to influence drug prescription, and a more critical attitude of the public towards the use of drugs (STG SCENARIO REPORT, 1993).

Several attempts have been made over the years by governments to influence drug prescribing by physicians and two regular sources of information are published that should provide the physicians with neutral information on pharmaceutical products (*Geneesmiddelenbulletin* and *Farmacotherapeutisch Kompas*).

An external appeal for the institutionalisation of drugs committees in hospitals was done in a report of the inspectorate of health in 1981 (*Geneesmiddelendistributie binnen inrichtingen voor gezondheidszorg*, 1981). This report stated the following:

> *"Board and management of the hospital have a major responsibility for a proper supply and distribution of pharmaceutical products in the hospital. It is of main importance to acknowledge that especially the organisation of drug distribution needs the co-operation of physicians, nurses and the pharmacist. It is therefore strongly recommended that in every institution, especially when a medical staff exists, a committee is installed, in which the pharmacist and a nurse participate, that advises the board and hospital management. It is proposed to call this committee a drugs committee'. Further*

formalisation of the drugs committee took place in 1984 when it became a legal obligation as it was mentioned explicitly in the licensing requirements for hospitals."

It is evident that the pharmacist plays a central role in the functioning of the drugs committee. Like the pathologist in autopsy meetings and the microbiologist and infection control nurse in infection committees, the pharmacist can use the drugs committee as a (formally and externally legitimised) infrastructure where his professional interests can be communicated and balanced with the clinicians.

The main function of the drugs committee has become the formulation of a formulary for the hospital. In this formulary drugs are listed that can be used by the physicians in the hospital. If physicians decide to prescribe drugs that are not mentioned in the formulary, this cannot be done without consulting the pharmacist and explanation of the reasons. For advice on the use of antibiotics there is an overlap with the activities of the infection committees. In most hospitals the pharmacist acts as the linking pin between the two committees.

A formulary is an important instrument to promote rational drug prescribing in a hospital. The formulary tries to improve both the effectiveness and the efficiency of drug prescribing. It is also evident that several vested interests are at stake when decisions are made on the content of a formulary. The idea of the use of a formulary and drugs committees in Dutch hospitals has, as many other committee activities, a predecessor in the P and T committees in the USA and Canada (pharmaceutics and therapeutics committee) (SEGAL AND PATHAK, 1988).

Findings on drugs committees in the COMAC/HSR/QA study

In the COMAC/HSR/QA study a total of 73% of the 262 participating European hospitals reported in 1990 that they had a drugs committee. All 15 participating Dutch hospitals reported that they had a drugs committee composed of physicians (15 times) and nurses (two times) and/or a representative from hospital management (three times). The use of a formulary has become common practice in Dutch hospitals. The situation in The Netherlands seems comparable to the one in the UK as reported in a study of Cotter, Barber and McKee (1994). Their survey among clinical pharmacy services (Nt=508, Nr=416) showed that 97% of the pharmacy services were involved in drug and therapeutic committees and 89% were involved in formulary management. The survey was based on a similar study in the USA (Nt=889, Nr=518) in which 90% of pharmacists reported that they participate in adverse drug reaction, drug use evaluation, drug therapy monitoring and medication error management programs and 51% that they have a well controlled formulary system in place (CRAWFORD SY, MYERS CE, 1992). Another American study among 150 community hospitals in 1992 (Nr=130) states that almost all hospitals had a formulary system and

a printed formulary (RASCATTI K.L., 1992). Apart from the formulation and adaptation of formularies, several local attempts have been made in Dutch hospitals to evaluate the use of a specific drug. One of the problems that occur during these audit studies is the difficulty to link the data of the pharmacy (volume-oriented data gathering: how many drugs are used) to the clinical data (function-oriented data gathering: for which indications are drugs prescribed). Auditing of drug use is an activity that can also take place under the aegis of the peer review committee or the infection committee (antibiotics). To have an impact on the behaviour of clinicians, drug committees have to function not only as a 'prescriber' but also as a 'quality circle' (HAMMERSHØY E., CHRISTENSEN U., CHRISTENSEN I., 1991). Personal experience is that this is at present only the case in a limited number of hospitals in The Netherlands.

Concluding remarks on drugs committees as an instrument for quality management of medical specialist care

The institutionalisation of the rationalisation of drug use in hospitals through drugs committees is related to the professionalisation of the role of the pharmacists in the hospital and supported and legitimised by society at large and by hospital management. Social concerns on side-effects of drugs as well as cost-containment have been incentives for the rationalisation of drug use. Emphasis of drug committees has been on the formulation and update of a hospital formulary, thus indirectly influencing the prescribing habits of clinicians. More direct forms of evaluation and feedback of medical specialist care related to drug use, seems to depend on the interprofessional relations between pharmacist and clinicians in a broader context than the drugs committee. Hospital informatisation, c.q. the linking of data of the pharmacy and patient data, play an important role for the realisation of more meaningful audits.

5.5.5 *The nature and development of Dutch hospital and medical staff committees related to quality management of medical specialist care*

The previous paragraphs have provided a description and analysis of some of the common committees related to quality management of medical specialist care in Dutch hospitals. The picture that emerges from these descriptions is the following:

- External incentives for the institutionalisation of specific activities in a committee format are provided by both government and the specialist association (LSV). Especially since the seventies the combination of government push (reports Health Council, Rules on hospital licensing) and specialists' association pull (promoting committees as part of the medical staff structure) has influenced the development of incidents committees, drugs committees, infection committees and peer-review committees. Apart from the autopsy committee, that has through the practice of autopsies a long history in medicine, the other committees seem to have emerged around themes where specialists and government alike were looking for more systematic control. The activities of government and the LSV (together with the NZR) seem therefore more synergistic than opposed. Although a balance has to be found between the state of self-regulation and accountability, government, profession and management seem to have coerced with their intentions since the seventies in the institutionalisation of hospital and medical staff committees.
- It is noteworthy that for three types of committees, drugs committee, autopsy committee and infection committee, a dominant role is played by professional groups that are only indirectly involved in the clinical process: the hospital pharmacists, the pathologists and the micro biologists, the latter in combination with infection-control nurses. Two complementary explanations can be offered here. First, the existence of a committee in their specific professional domain is a token of the professionalisation of their respective disciplines especially when this committee has a legal embedding. Secondly, their 'back-office' position in the hospital organisation makes the need for a formal structure that tries to influence the clinical practice on which they depend, the more necessary.
- Management activities in all committees are only partly covering the full PDCA circle. The majority of activities consists of the formulation of criteria and monitoring of practice c.q. analysis of problems. The position of the committees in the organisation (both the hospital organisation and the organisation of the medical staff) is such that their impact on clinicians depends on convincing rather than on coercion.
- In the fields of all committees, local as well as national activities take place to standardise terms and data collection (e.g. obduction forms, incident-reporting forms, infection surveillance registration systems). With these instrumentations

tension arises between local and national quality monitoring objectives (i.e. comparability of data between hospitals e.g. validity of performance indicators).

For committees to be effective towards the behaviour of medical specialists it seems important how the status and position of the committee is formalised and to what extent the committee work is perceived as an integral part of the management of care processes in the hospital. The (board of the) medical staff plays an important role in the functioning of committees as an instrument of quality management of medical specialist care. Co-ordination and support of committee activities and placing them in the context of the overall strategy of the medical staff towards quality management seems an important prerequisite for committees to be effective.

5.6 QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE: STRATEGY ON MEDICAL STAFF LEVEL (LEVEL 3)

Apart from quality activities directly related to the primary process (operational level) and activities performed in committees (tactical level) quality-management activities can be identified characterised by the fact that they relate to strategy. The medical staff is the forum where these strategical oriented activities take shape. Quality management strategy development is focused on activities inside the hospital as well as developments outside the hospital. The quality policy of the medical staff is on the one hand composed of the control on the functioning and improving of committee activities. On the other hand it tries to anticipate the quality-management initiatives of hospital management, scientific societies and the major specialist association (LSV). As part of a (pilot) programme for the visitation of medical staffs in hospitals, the LSV has in 1992 developed a series of quality norms that cover the main functions of strategical quality management (LSV, 1992). In summary these norms state the following:

- All specialists working in the hospital should be a member of the medical staff and the functioning of the staff should be made explicit in rules and regulations.
- The staff is responsible for keeping contact with the hospital board, hospital management and personnel of the hospital and can give advice and do propositions.
- The staff represents the collective responsibility for the quality of medical care and promotes the collective as well as the individual sense of responsibility for quality care.
- The staff promotes the collaboration of specialists with other persons involved in the organisation of the hospital.
- The staff promotes scientific development and promotes specialists to participate in training programmes in the hospital.

- The staff co-ordinates and reviews medical specialist care and co-operates in the recording of care processes.
- The staff promotes the integration of staff activities in the hospital organisation and aims at efficiency and good interpersonal relations.
- Within the medical staff there should be opportunities for mutual influencing of specialists on medical, functional, organisational as well as social issues.
- The medical staff has a staff board with at least three members that meets at least once a month and has monthly meetings with the hospital management.
- As a rule medical staff as a whole meets once a month.
- In large hospitals a 'nucleus staff' may be installed with only one representative from every specialty; this should facilitate more efficient staff meetings.
- Quarterly scientific meetings should be held and it is advisable to invite the local general practitioners to attend these meetings.
- For meetings of the medical staff and/or the nucleus staff a representative of the hospital management and a representative of the group of residents (AGIOs/AGNIOs) are also invited to attend.
- An annual report should be made that contains the elements of the quality policy of the medical staff.
- The following committees should be functioning in the hospital: accidents committee, drugs committee, infection committee, complaints handling committee/procedure, quality committee (including peer review) and medical ethics committee.
- The following committees are advisable: budget committee, complications committee, intensive care committee, medical records committee, autopsy committee, OR committee, oncology committee, committee for a medical policy plan.
- It is advisable to report progress of committee activities during the meetings of the medical staff.

These norms represent the ideal profile of the medical staff from the perspective of the LSV. Although results of a formal evaluation of all medical staffs in The Netherlands are not available, surveys of the LSV and experience shows that all staffs function more or less in accordance to the model described above. The explicit mentioning of quality policies in the 1992 document is new, but builds on the series of quality initiatives the LSV has taken since the medical staffs were installed in the fifties. Since several years, boards of medical staffs are showing more interest in the development of a coherent policy for quality management for the specialists in their hospital. Personal experience with the development of these policy plans in several hospitals shows that the following elements are at present on the agenda:

- functioning of staff and hospital committees with regard to quality of care;
- transformation of the peer-review committee into a quality committee;
- participation of specialists in hospital-wide quality assurance initiatives;

- role of the medical staff in the visitation programmes of scientific societies;
- involvement of specialists in quality-management activities of the medical staff (motivation, time and financial resources).

Although the number of hospitals where the board of the medical staff is taking these initiatives is still limited, it illustrates in operational terms how integration of the specialists in the hospital organisation is translated in concrete activities in the domain of quality of care.

For the initiation of these activities, experience shows that it is mandatory that some opinion leaders within the medical staff take the lead. Acceptance by peers in the role of initiator seems crucial for the success of the development of a quality policy. The medical staff is above all a collective of equals and convincing instead of coercion is necessary for the implementation of new strategies. Quality-management initiatives developed within the scope of the medical staff strengthen the position of the medical staff and are not necessarily in tune with TQM/CQI initiatives of hospital management that takes other organisational units (such as divisions) as the infrastructures in which quality management should be set up (see chapter 8). However, these built-in tensions within the hospital organisation should not only be perceived as obstacles for change but also as opportunities for introducing change. Opinion leaders within the medical staff often refer to external threats (management, government) when promoting the necessity of a strong quality policy for the medical staff. The existing tension is used to luxate the dynamics necessary for quality management: a combination of external pressure and internal group dynamics. The resulting activities within the medical staff seem to be a natural extension of the professionalisation of specialist care in the hospital, building on infrastructures and policies initiated by the specialist association. By adoption of new initiatives, such as visitation programmes by scientific societies and transformation of the peer-review committee in a quality committee, the old staff model is re-acknowledged.

Jargon of industrial quality management is slowly absorbed by the traditional structures and processes of specialists care delivery. The professionalisation process still seems to be the dominant force in the shaping of the quality policies of medical staffs, attempting to find an equilibrium between intra-professional forces on the one hand (LSV versus scientific societies: medical staff versus partnerships) and the forces created by strategies and plans of hospital management on the other. A strategy on quality management of the medical staff is therefore also a strategy to maintain collective professional autonomy within the hospital organisation whilst at the same time creating the necessary mechanisms for internal control and external accountability.

How these dynamics are reflected in peer-review studies and practice guidelines is explored in the next two chapters. How the dynamics relate to the more modern policy ideas on quality systems in hospitals will be discussed in chapter 8.

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Chapter 6
The selection of topics for quality management

An analysis of 101 priority meetings to select topics for peer review, held between 1977 and 1992 in 51 Dutch hospitals

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6.1 INTRODUCTION

Since the issuing of the report on peer review in general hospitals in 1976 and the foundation of CBO, the National Organisation for Quality Assurance in Hospitals, in 1979, a growing number of hospitals in The Netherlands has been engaged in peer review activities.

One of the first steps for a peer review committee is the selection of topics for audit before they can start to execute the PDCA cycle (see 4.5.2). Although there are various ways to select topics, CBO promotes the methodology of a priority meeting. In this chapter the method of priority meetings for the selection of topics for peer review will be described and discussed. Results of 101 priority meetings held between 1977 and 1992 are presented and analysed based on the reports of those meetings. The 'why', 'what' and 'how' questions (see chapter 2) are used as a framework for analysis, thus trying to explore the quality management nature of the topics that were brought forward by specialists as (potential) items for peer review. Apart from the nature of the mentioned topics, the frequency with which they were mentioned will also be analysed. In this way the 'epidemiology' of perceived quality problems related to specialised care in hospitals is explored and the findings will be complemented with experience gained with the

actual performance of peer-review studies on a series of clinical topics. The chapter starts with a description of the methodology of priority meetings (6.2) and the material obtained during 101 sessions (6.3). Results of three types of analysis will be presented successively: an analysis of the frequency distribution of selected topics (6.4), a content analysis on 20 selected topics (6.5) and an analysis based on the coding of topics by their managerial characteristics (6.6). The chapter concludes with a discussion, focusing on the interpretation of the presented empirical material from the perspective of theories on quality (6.7.1), professionalisation theory (6.7.2), management and organisation theory (6.7.3) and innovation theory (6.7.4). In a final paragraph the applicability of priority meetings for quality management of medical specialist care in Dutch hospitals will be discussed (6.7.5).

6.2 THE METHODOLOGY OF A PRIORITY MEETING

A priority meeting is a session of about two and a half hours during which a group of 8-10 medical specialists makes an inventory and prioritises potential topics for peer review. The session is usually presided by a staff member of CBO and consists of 3 phases. It is a nominal group technique as originally developed at the beginning of the seventies by Delbecq and Van der Ven (1971). The method has been adapted for the purpose of selecting topics for peer review in hospitals by Williamson (WILLIAMSON, 1978). It is a structured procedure, using the judgements of a representative group of local specialists for establishing priorities for quality assurance activities. Williamson tested the method both on its reliability (WILLIAMSON ET AL., 1978) and its validity (WILLIAMSON ET AL, 1979) in various medical institutions. He concluded that the reliability of the method was high in the institutions studied. He also concluded that, in spite of many constraints, there was substantial evidence of predictive validity of the priority team topic selection judgements as applied in the participating organisations.

Phase 1 – Group composition and introduction

For establishing quality management priorities, the composition and size of the priority team are important. Experience shows that a group of 8-11 specialists is ideal. If the group is smaller, the group is not really representative for the whole medical staff and its many different specialties. A group larger than 11 causes group dynamics that are more difficult to handle and will most likely result in a meeting that lasts longer than the predicted two and a half hours.

In its composition the group should represent the whole medical staff of the hospital and should, as a group, have a proper overview on specialist care in the institution. This usually implies that there should be a representative from the surgical specialties, a representative from the internal specialties (internal medicine, pulmonology, cardiol-

ogy, neurology, paediatrics), a representative from the supportive specialties (radiology, pathology), the 'smaller' specialties (dermatology, oro-laryngology, ophthalmology) and other supportive disciplines (laboratory and pharmacy). Representiveness is essential for achieving a topic selection that is acceptable for the whole medical staff.

Usually the members of the priority team are selected by the medical staff at the request of the peer-review committee. Members of the peer review committee are excluded from membership of the priority team. The peer-review committee plays a co-ordinating role for the various audit activities and tries to take a neutral stand. It does not select the audit topics but facilitates that topics are selected through a priority team, representing the whole medical staff. Thus the committee tries to enhance the commitment of medical staff to the topic selection and protect themselves against possible criticism when the audit studies are actually performed. A few members of the peer-review committee do, however, mostly attend the priority meetings as observers. This has certain advantages, as not all arguments and discussions can be reflected in the report that is written on the priority meeting.

Members of the priority team receive a letter from the chairman of the peer review committee about the purpose, time and place of the meeting and the request to think about possible topics before they go to the meeting. It is also suggested that they should consult their colleagues of the same specialty about possible audit topics. A booklet, written by CBO staff, on the methodology of the priority meeting, is distributed beforehand among the members of the team (CBO, 1979).

Phase 2 – Inventory of possible topics for peer review

At the beginning of the meeting, the team leader explains in short the purpose and method of the meeting. It is stressed that with full co-operation these meetings do not need to last longer than 2 1/2 hours. There is ample room for questions. Experience shows that quite often the purpose of peer review and the work of the peer-review committee have to be explained to several of the team members; these discussions are usually limited to factual information and no room is given for a repeating of fundamental discussions about the pros and cons of peer review, that usually have taken place previously in the medical staff. Having an external person (from CBO) conducting the meeting seems to help guide the discussions. Every team member receives a form (form A.) on which he/she is asked to write down potential topics for peer review. The form forces the team member to be explicit about the topics to be described. It asks the participant to state to which specific group of patients the topic is related, which different specialties or other disciplines are involved, which health-care problem it relates to and which change in actual health-care delivery is necessary to improve the outcome. Seven minutes are provided to write down as many topics as each member can think of. After seven minutes the team leader asks all members one

by one to name the two topics on their list they consider most important. These topics are noted on a blackboard and discussed between the group leader and the member that nominates the topic. This discussion is meant to clarify the topic and the arguments why it is brought forward. At the end of this round, that lasts about one and a half hour, a list of different nominations of topics for peer review is presented on the blackboard.

Sometimes during the discussion of a topic the group member and the discussion leader decide that a topic should not be added to the list because it is not suitable for the peer review procedure. This often relates to problems that, not withstanding their importance, cannot be resolved in the context of the peer review committee but need the attention of the board of the medical staff or hospital management. In such cases it is decided to mention the topic in the report, and bring it to the attention of the respective bodies, but not to include the topic in the priority list for peer review.

Phase 3 – Priority weighting and selection of topics

The weighting, and thus prioritising of topics, is done in two different rounds. The team leader distributes a second form (form B) on which the individual group members have to score each topic mentioned on the list. They are asked to use the following criteria for weighing:

- attainability of the proposed change
- possibilities to achieve improvement through peer review
- relevance of investing time and money in this specific topic

The maximum numbers of points to give to a topic is 5, the minimum 1. Each group member can give as many 5's and 1's as he or she wants.

After the first weighting round, the team leader collates the data and starts a discussion on those topics that got both high and low rates from individual group members. Through this discussion it becomes clear why group members rate a certain topic as important or less important. Misunderstandings like 'as a pharmacologist I rated low on preoperative assessment because it is not my business' are clarified and it is explained repeatedly that relevance of the topic for medical specialist care in the hospital as a whole should be considered. Group members are asked to weight each topic for the second time and reconsider their previous scores. After this has been done the group leader again collates the data and presents the final list with chosen priorities. The team members are thanked for their contribution and within two weeks after the meeting a detailed report, written by the team leader, is sent to the peer-review committee for further distribution. The priorities in this report constitute the agenda for the peer-review committee for the coming year(s) and the results are also reported at the next meeting of the medical staff.

6.3 MATERIAL USED FOR ANALYSIS

In the period 1977 until August 1992 CBO has conducted 101 priority meetings in accordance with the method described above. These priority meetings were held in a total of 51 hospitals. Among them were 34 general hospitals, 15 teaching hospitals and 2 academic hospitals (the total number of Dutch hospitals in 1992 was 139: 8 university hospitals, 55 teaching hospitals and 76 general hospitals). In 9 hospitals a priority meeting was held twice, in 6 hospitals three times, in 3 hospitals four times, in 2 hospitals five times, in one hospital six times and in one hospital seven times. Frequent priority meetings are usually a sign of progress of the peer-review activities and a necessity to identify new problem areas. In a limited number of hospitals it has become a custom to hold a priority meeting at the beginning of each year to set the agenda for peer review. Table 1 summarises the frequency of the number of priority meetings held over the years.

TABLE 1 *Distribution of priority meetings over the years*

year	*total number priority meetings*	*number of priority meetings held for the first time in a hospital*
1977	1	1
1978	2	2
1979	2	1
1980	9	7
1981	11	9
1982	13	5
1983	12	6
1984	7	3
1985	7	4
1986	11	2
1987	7	2
1988	7	2
1989	2	1
1990	3	3
1991	4	2
1992	3	1
total	101	51

Priority meetings are not the only method for selecting audit topics, many other, often less systematic methods, for topic selection are applied. Therefore the conclusion that hospitals where no priority meetings are held are not performing audit studies is not justified. Many peer-review committees change their ways of selecting topics over time. However, the material of the 51 hospitals described in this chapter reflects systematic attempts to select audit topics, and constitutes most likely a positive sample of Dutch peer review activities in hospitals.

As a method for topic selection the priority meeting is systematic and the results are documented in a report. This documentation, combined with the personal experience of conducting 17 priority meetings between 1985 and 1992, is the source for further analysis. The reports usually give a short description of all the topics mentioned during the meetings and summarise the arguments that were brought forward. Furthermore, the names of the participants and the results of the different weighting rounds are recorded. Interpretation of the arguments and grouping of the topics is objective where it relates to the counting of facts, but tends to become subjective when an interpretation of the arguments and descriptions is given. Acquaintance with many of the underlying problems and the way these problems have been handled in different hospitals over the past decade, has been helpful in raising awareness about personal bias and in the interpretation of the data.

6.4 ANALYSIS FOCUSING ON THE FREQUENCY WITH WHICH SPECIFIC TOPICS ARE MENTIONED AND PRIORITISED

During 101 priority meetings a total of 1084 topics were nominated for peer review. Similar topics were brought forward in different meetings in different hospitals. Based on the formulation of the topics and the additional information provided in the reports of the priority meetings, it was quite easy to categorise the majority of topics in more or less homogeneous groups. This categorisation is primarily based on the formulation of the topics in the reports and evolved naturally when studying the material. The categorised topics can be distributed in the following way:

Topics mentioned most frequently

Table 2 lists 23 topics that were brought forward more than ten times during 101 priority meetings. The frequency distribution shows that preoperative assessment (52), anticoagulant policy (45), antibiotic policy (39), record-keeping (39) and consultation of colleagues (36) constitute a top 5 of topics that are mentioned in 2 out of 5 meetings. In total the 23 topics in table 2 cover 550 (51%) of the total of 1084 topics nominated as a priority for medical audit.

TABLE 2

The 23 topics most frequently brought forward as a suitable topic for medical audit and the number of times they were mentioned in the 101 reports of priority meetings out of a total of 1084 topics.

1.	Preoperative Assessment	52
2.	Anticoagulant policy	45
3.	Antibiotics policy	39
4.	Record-keeping	39
5.	Intercollegiate consultation	36
6.	Blood-transfusion policy	29
7.	Useless double-testing	27
8.	Reanimation policy	26
9.	Informing patients	24
10.	Triage at the EHBO (emergency room)	22
11.	Bedsores policy	23
12.	General drugs policies	19
13.	Radiology	19
14.	Co-ordination on the ICU	18
15.	CITO testing (urgent)	17
16.	Bladder catheterisation	17
17.	Infusion policy	17
18.	Policy for patients with breast cancer	16
19.	Obduction/PA	14
20.	Infection control	14
21.	Policy for diabetes patients	14
22.	Parenteral feeding	12
23.	Pain management	11

In total these 23 subjects cover 550 (51%) of the total of 1084 topics mentioned.

Topics selected most frequently as priority 1, 2 or 3

Table 3 lists the 12 topics that were chosen most frequently as number 1, 2 or 3 during the 101 priority meetings. Compared with table 2 it can be noticed that preoperative assessment is not only mentioned most frequently (52 times) but also selected most frequently as a top priority (30 times). Record-keeping scores better as a topic priority (20) than anticoagulant use (16) despite the fact that it was nominated less frequently (39 versus 45 times). Topics that were nominated frequently but that do not appear to

be chosen as a high-priority are 'inappropriate laboratory testing' (nominated 27 times, high priority only 7 times), 'informing patients' (nominated 24 times, high priority 3 times), 'general pharmaceutical policy' (nominated 19 times, high priority 3 times), 'radiology' (nominated 19 times, high priority 2 times) and 'the Intensive Care Unit (ICU)' (nominated 18 times, high priority 5 times).

TABLE 3

Listing of the 12 topics selected most frequently as priority number 1, 2 or 3 during 104 priority meetings

1.	Preoperative assessment	30
2.	Record-keeping	20
3.	Anticoagulant use	16
4.	Antibiotics policy	15
5.	Blood-transfusion policy	15
6.	Reanimation policy	12
7.	Bladder catheterisation	10
8.	Triage at the EHBO	9
9.	Intercollegiate consultations	8
10.	Infusion policy	8
11.	CITO tests	7
12.	Bedsores policy	7

The third phase of the priority meetings stresses the need to select only those topics for peer review where the proposed change is attainable, improvement through peer review possible and investing time and resources in the topic relevant. The differences between tables 2 and 3 appear to reflect these judgements. Topics like 'inappropriate laboratory testing', 'informing patients' and 'consultation of colleagues' express a general concern but are perceived as more difficult to handle as a concrete topic for a peer-review study than for example preoperative assessment and use of antibiotics.

The frequency with which topics are nominated (table 4) and chosen as priority 1, 2 or 3 (table 5) during three different time periods: 1977-1982, 1983-1987 and 1988-1992

TABLE 4

Frequency of topics mentioned during 101 priority meetings over the periods 1977-1982, 1983-1987, 1988-1992

period	*1977-1982*	*1983-1987*	*1988-1992*
number prio meetings	*38*	*44*	*19*
preoperative assessment	18 (47%)	24 (55%)	10 (53%)
anticoagulant use	17 (45%)	17 (39%)	11 (58%)
antibiotics policy	12 (32%)	18 (40%)	9 (47%)
record-keeping	20 (53%)	11 (23%)	8 (42%)
intercol. cons.	13 (34%)	15 (34%)	8 (42%)
blood transfusion	10 (26%)	12 (27%)	7 (37%)
useless lab tests	12 (32%)	13 (30%)	2 (11%)
reanimation policy	11 (29%)	8 (18%)	7 (37%)
patient info/policy	9 (24%)	8 (18%)	7 (37%)
EHBO	6 (16%)	7 (16%)	9 (47%)
bedsores	8 (21%)	10 (23%)	5 (26%)
drugs policy	8 (21%)	9 (20%)	2 (11%)
radiology	10 (26%)	4 (9%)	5 (26%)
ICU	8 (21%)	6 (14%)	4 (21%)
CITO	4 (11%)	8 (18%)	5 (26%)
bladder catheterisation	6 (16%)	9 (20%)	2 (11%)
infusion policy	6 (16%)	10 (23%)	1 (5%)
breast cancer	5 (13%)	7 (16%)	4 (21%)
diabetes care	1 (3%)	8 (18%)	5 (26%)
obduction/PA	5 (13%)	6 (14%)	3 (16%)
infection control	7 (18%)	4 (9%)	3 (16%)
parenteral feeding	3 (8%)	8 (18%)	1 (5%)
pain management	3 (8%)	6 (14%)	2 (11%)

TABLE 5

Frequency with which topics were prioritised as 1, 2 or 3 during 101 priority meetings in the periods 1977-1982, 1983-1987 and 1988-1992

period	*1977*	*1983-1987*	*1988-1992*
number prio meetings	*38*	*44*	*19*
preoperative assessm.	12 (31%)	13 (30%)	5 (26%)
record-keeping	11 (29%)	4 (9%)	5 (26%)
anticoagulant use	6 (16%)	7 (16%)	3 (16%)
antibiotics policy	2 (5%)	12 (27%)	1 (5%)
blood transfusion	7 (18%)	5 (11%)	3 (16%)
reanimation	5 (13%)	2 (5%)	5 (26%)
bladder catheterisation	5 (13%)	5 (11%)	0
EHBO	3 (8%)	2 (5%)	4 (21%)
intercol. cons.	5 (13%)	1 (2%)	2 (11%)
infusion policy	4 (10%)	3 (7%)	1 (5%)
CITO (state)	1 (3%)	4 (9%)	2 (11%)
bedsores	3 (8%)	3 (6%)	1 (5%)

Tables 4 and 5 show that in general both the nomination and selection of high priorities over the three different time periods is stable for most of the topics. An exception seems to be record-keeping that was nominated and chosen as a top priority less often in the period 1983-1987 than in the two other time periods. A possible explanation might be that in this middle period a lot of hospitals started with projects to computerise hospital information, the initial expectation was that the medical record should also be automated but this ideal proved less realistic over the years. Another exception is antibiotics policy, that is nominated frequently over all three periods but seems to be chosen as priority 1, 2 or 3 mainly in the period 1983-1987. This might be related to the growing interest of drug committees and infection committees in this topic because of the increasing problems with multiple resistance in hospitals since the mid-eighties (see 5.5.3, 5.5.4). There is also a trend that inappropriate laboratory testing is mentioned less frequently over the years and in the period 1988-1992 topics as resuscitation policy and policies at the Emergency Department are nominated and selected as a high priority more frequently. The differences are, however, too small and the number of meetings too limited to justify any further conclusions.

Comparison of topics mentioned during a priority meeting that was held in a hospital for the first time and topics nominated and selected as priority 1, 2 or 3 during meetings in hospitals where priority meetings had been held previously

The results of this comparison are shown in table 6 and table 7.

TABLE 6

Frequency of topics mentioned during 101 priority meetings over the periods 1977-1992 divided into first-time meetings versus repeated meetings in a total of 51 hospitals (i.e. 51 first-time, 50 repeated priority meetings)

topics	*first-time* (N = 51)	*repeated* (N = 50)
preoperative assessment	29	23
anticoagulant use	25	20
antibiotics policy	15	24
record-keeping	20	19
intercol. cons.	20	16
blood transfusion	20	9
useless lab tests	10	17
reanimation policy	12	14
patient info/policy	10	14
EHBO	12	10
bedsores	10	13
drugs policy	9	10
radiology	14	5
ICU	13	5
CITO	9	8
bladder catheterisation	10	7
infusion policy	6	11
breast cancer	7	9
diabetes care	8	6
obduction/PA	6	8
infection control	8	6
parenteral feeding	8	4
pain management	4	7

TABLE 7

Frequency of the 12 topics selected most frequently as priority number 1, 2, or 3 during 101 priority meetings held between 1977-1992 divided by first-time and repeated priority meetings in 51 hospitals (i.e. 51 first-time, 50 repeated priority meetings)

topics	*first-time* (N = *51*)	*repeated* (N = *50*)
1. reoperative assessment	18	12
2. record-keeping	12	8
3. anticoagulant use	11	5
4. antibiotics policy	5	10
5. blood transfusion	9	6
6. reanimation policy	5	7
7. bladder catheterisation	7	3
8. EHBO	5	4
9. intercol. cons.	6	2
10. infusion policy	3	5
11. CITO	5	2
12. bedsores	2	5

The tables show that on average there is not a large difference between the selections made at first-time versus repeated priority meetings. Exceptions on this rule seem to be blood transfusion (20/9) and ICU (13/5). A possible explanation could be that once after these topics are selected for peer review the discussions become institutionalised in new committees such as the blood-transfusion committee and the Intensive Care committee.

6.5 ANALYSIS AND DISCUSSION OF THE NATURE OF 20 PEER REVIEW TOPICS BASED ON THE REPORTS OF 101 PRIORITY MEETINGS AND EXPERIENCE WITH RELATED ACTUALLY PERFORMED PEER REVIEW STUDIES

To get a better understanding of the nature of the topics brought forward during the priority meetings and their relevance to the concept of quality management, the most frequently nominated and selected topics (see table 2, page 203) will be discussed here in more detail. The discussion of these topics will be primarily based on information derived from the reports of the priority meetings and will be complemented with reported peer-review studies in literature and personal experience with the execution of peer-review studies on the respective topics. For several topics experience outside The Netherlands will be presented, notably the results of peer-review studies performed as part of the concerted action programme on quality assurance in hospitals (see note in paragraph 5.1, page 145) on preoperative assessment, record-keeping, the prevention of bedsores, and blood-transfusion policy. To understand the nature and development of quality management of specialist care, it is helpful to explore concrete problems associated with the execution of peer-review studies on a series of clinical topics selected through the method of priority meetings. The reflections in this paragraph are mainly based on the reports of the priority meetings; this implies that problems will be presented as they are perceived and labelled by the specialists that participated in the meetings. The topics will be analysed by posing systematically the WHY (motives), WHAT (knowledge component) and HOW (management component) questions (2.6). In accordance with the framework for analysis presented in chapter 2, the HOW dimension will be explored in more detail by posing questions on the 'who', 'when', 'where', '(formalised) information (transfer)' and '(formalised) feedback'.
The following topics will be discussed:

- preoperative assessment;
- anticoagulant policy;
- record-keeping;
- consultation of colleagues;
- blood transfusion policy;
- inappropriate laboratory testing;
- resuscitation policy;
- policies related to information for patients;
- policies at the Emergency Department;
- anti-bedsores policies;
- general pharmaceutics policy;
- problems at the radiology department;

- Intensive Care Unit (ICU);
- urgent laboratory testing (STAT);
- urinary-tract catheterisation (UTC);
- drip policy;
- patients with breast cancer;
- diabetes care;
- parenteral feeding;
- pain management.

The practice of peer review related to the topics antibiotics use, infection control and obductions has already been discussed in chapter 5 in the paragraphs on the functioning of drugs committees (5.5.4), infection committees (5.5.3) and autopsy meetings (5.5.1) and will not be repeated here. The analysis of the twelve topics that were most often selected as a priority (see table 3, page 204) is somewhat more extensive because a larger amount of empirical material was available.

6.5.1 Preoperative assessment[13]

Preoperative assessment appears to be by far the most popular topic to be nominated (52 times) and selected (30 times) for a peer-review study. The interest in the topic remains high over the years although the focus on the aspects of preoperative assessment that need further attention seems to be shifting from the medical scientific domain ('What tests should be performed?') to the managerial domain ('How can we organise preoperative assessment in a more efficient way').

'WHY' — New views on the value of 'screening tests' (X-ray, ECG, laboratory tests) and budgetary constraints have compelled many hospital staffs to review their preoperative assessment practice. During discussions in the priority teams and in peer-review committees various reasons were brought forward for preoperative assessment. Agreement about the aim of preoperative assessment seems, however, to be a prerequisite for reaching agreement about the minimal set of preoperative tests. The most frequently mentioned reason for preoperative assessment was the assessment of risk. The risks involved in an operation are considered as a combination of the surgical risks and the anaesthesiological risks. Traditionally these risks were assessed by the surgeon and the anaesthesiologist through history taking and physical examination of the surgical patient. However, these classical forms of risk-assessment have over the years been complemented and/or substituted by a wide array of radiological and laboratory tests. Apart from a risk-assessment function, other reasons were also put forward for per-

[13] *This paragraph is partly based on an article by Klazinga N.S., Helsloot R., (1989): Quality Assurance of preoperative assessment – a review of quality assurance activities related to preoperative assessment in nine hospitals in The Netherlands, Quality Assurance in Health Care, 1(1):45-53.*

forming preoperative tests. Especially in the late seventies and during the eighties some specialists considered preoperative assessment as a form of general screening and others considered it worthwhile to collect preoperative data to establish a baseline for 'monitoring' patients. Still others wanted to perform tests to assess risk for personnel (e.g. HIV testing) or for medico-legal reasons (defensive medicine). Research can be another reason for (extra) preoperative testing. At present in the majority of hospitals the risk-assessment function is considered as the only legitimate reason for preoperative testing. Although medical effectiveness is at the core of all discussions about preoperative assessment it is also evident that the external pressures of cost-containment and accountability have sensitised specialists to discuss the appropriateness of 'routine testing'.

'WHAT' — In all discussions on preoperative assessment the use of X-rays and ECGs play a dominant role. During the majority of priority meetings the necessity to make a local protocol on the necessary tests for preoperative assessment was stressed, and X-ray and ECG, together with laboratory tests, were the main discussion topics. Over the years a large amount of publications have appeared demonstrating the low predictive value of routine use of X-rays and ECGs for preoperative screening in various age groups (e.g. see literature in KLAZINGA 1989, BOOY 1995 AND MARELLO ET AL. 1996). Guidelines for preoperative assessment in The Netherlands were provided by a report of the Scientific Council of CBO (1983), and by the Academic Medical Centre in Amsterdam (1984). The ASA score (a categorisation by medical condition of patients developed by the American Society of Anaesthesiologists) is introduced in the discussion to distinguish the necessity of different tests for patients in the respective categories ASA I-V.

Another way to divide patients in categories that need different tests is the distinction between major and minor operations. Analysis of existing protocols in Dutch hospitals demonstrates that over the years the number of tests for ASA-I patients included in the protocol is decreasing and is relatively low compared with the situation in other European hospitals (KLAZINGA 1989, 1994). The tendency to reduce the number of preoperative tests has resulted in a revival of the debate on the necessity of proper history taking and physical examination of all patients preoperatively. This has resulted in a general re-evaluation of the logistics of preoperative assessment. In the reports of the priority meetings it can be recognised that since the second half of the eighties the problem is formulated more and more in managerial terms: 'Who should do the preoperative assessment and where and when?'

'HOW' — Traditionally a patient who needed elective surgery was only seen before admission by the surgeon. Preoperative assessment of anaesthesiologic risks was usually done by the anaesthesiologists the evening before the operation and a second assessment of the surgical risks was usually done at admission by interns. With the growing complexity of operations, the shift to day-surgery and the decrease of hospital stay these organisational arrangements caused more and more problems

- There was insufficient time for a proper assessment of anaesthesiological risks and additional test ordering.
- Anaesthesiologists were pressed to proceed with the planned operation because delay had major financial consequences; this was very patient-unfriendly and could cause annoyance among surgeons.
- There was insufficient use of available information on patients (results of history taking, physical examination and previous test results), and additional test results (X-ray, ECG, laboratory tests) were used by anaesthesiologists as a substitute for history taking and physical examination.

During the priority meetings these problems were expressed several times and it was suggested that the peer-review committee should not only develop a (new) protocol for preoperative assessment but should also study how the logistics could be improved.

'WHO' — The question who should perform preoperative assessment is at the centre of the logistical problems. Both surgeons and anaesthesiologists hold each other responsible for the performance of preoperative assessment. As preoperative assessment was included in the fee of the surgeon and an advice of the Health Council (1978) made the surgeon primarily responsible for the operation and the collection of the preoperative patient data, for a long time anaesthesiologists took the stand that they where not responsible for preoperative history taking and physical examination. However, during the past ten years it has been recognised that an assessment of anaesthesiological and surgical risks is a common responsibility and the involvement of the anaesthesiologist should be re-evaluated (NVA 1986, MOERMAN 1995, BOOY 1995). At present this issue is again under discussion in a committee of the Health Council that will most likely change its 1978 opinion.

'WHEN' — For a smooth procedure for preoperative assessment is seems necessary to link the several information-retrieval processes and decision-making processes in a logical way. This implies that all information obtained through history-taking, physical examination and test results should be used to establish the surgical and anaesthesiological risks and only when these risks are established the final decision for elective surgery and the planning of an operation date and admission of the patient should be made. This streamlining of the information and decision-making flow is a major organisational challenge as it interferes with the working patterns of the surgeons, the anaesthesiologists, the admission office of the hospital and the laboratory and radiology department. Although only few hospitals have mastered so far to re-engineer all logistical details involved, several attempts have been made. One of the main hurdles is to obtain information before admission about the condition of the patient, that can be used by the anaesthesiologist to assess the risks for anaesthesiology. Several hospitals have solved this problem by providing patients that are selected by surgeons for elective surgery with a questionnaire on the previous medical history. This questionnaire should be returned to the anaesthesiologist. The results can help the

anaesthesiologists to make a pre-selection of patients at risks that should be seen prior to admission or who require special attention once they are admitted. This strategy can be complemented with the results of 'routine' preoperative tests. In the outpatient department the surgeon is supposed to give an ASA score to every patient that is considered for elective surgery, and based on these scores tests are performed in accordance to a local protocol. These test results should be sent to the surgeon and the anaesthesiologist prior to admission.

'WHERE' — All logistical rearrangements are focused on integrating the anaesthesiologist in an earlier phase in the decision-making process. A way to achieve this is to provide consultation facilities for anaesthesiologists in the outpatient department. By putting the anaesthesiologists in an earlier phase of the process, additional test ordering is done by indication only, contrary to previous routine ordering by the surgeons. Several hospitals have been able to realise this solution. An inventory of preoperative assessment for day-surgery patients in 1994 showed that in 32 out of 129 hospitals consultations by anaesthesiologists where provided at the outpatient department (OVERKAMP, 1994). One hospital (that prioritised preoperative assessment as a priority for peer review already in 1978) has studied the changes and reports improved efficiency and patient satisfaction (RUTTEN ET AL. 1995A, 1995B, RUTTEN 1996). To reach this solution the commitment of hospital management and the local health-care insurer (reimbursement of the time spent by anaesthesiologists on preoperative assessment) seem to have been crucial.

'FEEDBACK' — Audit studies performed in The Netherlands (E.G. KLAZINGA ET AL. 1989, PHAFF ET AL. 1989, LAMERS ET AL. 1989) demonstrate that in reality too many as well as too few tests are performed in comparison to the local protocols on preoperative assessment. Audit studies have been used to demonstrate that, in accordance with literature, in the local hospital situation the predictive value of X-ray, ECG and laboratory tests is very low (more false positive than real positive results) and that positive test results hardly ever had any consequences for the operation. Results of audit studies have been used to decrease the scepticism of local specialists about the test reduction and new logistical procedures. Opinions expressed in literature seem to become more convincing when they can be backed by local data.

The interest in preoperative assessment in Dutch hospitals seems similar to developments in other European countries. The debate about the responsibilities of surgeons versus anaesthesiologists is also demonstrated by an evaluation study of preoperative assessment in French hospitals (ANDEM, 1992). As part of the concerted action programme on quality assurance in hospitals 56% of the 262 participating hospitals reported in 1990 that they had organised (part of) their preoperative procedures before the admission of the patient. A total of 34 hospitals chose in 1990 preoperative assessment as a topic for an audit study. In 1993 97% of these hospitals reported to

have guidelines on what tests should be performed preoperatively and 67% included guidelines on history taking and physical examination. The guidelines were formulated by anaesthesiologists (90%) and surgeons (65%). The most frequently reported strategies to achieve improvement were the (re)formulation of guidelines and the improvement of co-operation between surgeons and anaesthesiologists (KLAZINGA 1994). The realisation of change seems to be dependent on assignment of responsibilities among specialties, logistics and confidence in the predictive value of history taking and physical examination versus radiology and laboratory tests.

6.5.2 *Anticoagulant policy*

'WHY' — Anticoagulant policy has been brought forward 45 times and was elected as priority one, two or three, 16 times during the 101 priority meetings. The awareness about problems associated with anticoagulant use in hospitals seems to be profound. However, the figures also reflect the difficulties specialists expect in solving the problems. A dominant question behind the debate on the use of anticoagulants is the one on their medical effectiveness. Is seems advisable to give anticoagulants to patients to prevent post-operative venous thrombo-embolic complications (e.g. deep-venous thrombosis, pulmonary embolism) but questions exist on what type of anticoagulants should be administered in what dosage, when to start and stop and how to monitor the effectiveness. Although common opinion is that anticoagulants are useful for thrombosis prophylaxis in surgery patients, actual practice differs between hospitals and often within the hospital among specialists. Lack of standardisation increases the chances for incidents. Thrombosis prophylaxis is a multi-specialty problem (involvement of specialists who perform surgery as well as specialists in internal medicine who are considered the local experts on blood clotting). It is considered a problem that can be solved through protocol development and evaluation under the aegis of the peer-review committee. Although there are also some efficiency aspects involved (e.g. the process of ordering and administering prophylaxis and the daily monitoring of the effects through clotting tests is rather labour-intensive), these were hardly mentioned during the priority meetings. Medical effectiveness of anticoagulants use seems to be the main concern.

'WHAT' — The following discussion items where brought forward as elements that should be discussed and preferably regulated in a local protocol:

- the use of subcutaneous heparin: dosage, relation between dosage and weight of the patient, moment of administering, way of monitoring the effect through APTT testing and more recently the question whether low-molecular-weight heparin (LMW) and heparinoids should be used;
- use of subcutaneous heparin in combination with dihydroergotamine;

- oral anticoagulants use (coumarin derivates); choice of medication (fenprocoumon/Marcoumar versus acenocoumarol/Sintronmitis), dosage schedule, monitoring of effect through the Thrombo Test (results more and more expressed in INR, International Normalised Ratio), optimal Thrombo Test/INR values, possible indications for Warfarine;
- use of dextranes;
- contra-indications for anticoagulant use.

Although more and more knowledge has become available over the years on the effectiveness of different forms of thrombosis prophylaxis for (surgery) patients, the issue is still complex and controversial enough to merit the regular attention of specialists of various specialties. Especially the situation in which different specialists in a hospital prefer heterogeneous regimes of anticoagulant use may lead to confusion among the rest of the hospital staff (interns, nursing staff) and therefore the chances for errors and non-compliance seem to increase. Given the many remaining questions on the efficacy of the different regimes, peer-review studies on anticoagulant use tend to become research studies. With this topic it is difficult to draw the line between a study set up to evaluate whether practice is in accordance with pre-set criteria and a study that tries to evaluate the effectiveness of a specific anticoagulant policy.

'HOW' — The logistics surrounding the prophylactic anticoagulant protocols can be rather complex because of the need for regular testing (APTT and/or Thrombo Test) and fine-tuning of the dosage of the medication to the results of these tests. Many different persons are involved in the communication and decision-making processes related to the anticoagulant policy of one patient so a clear-cut protocol can be supportive to create a routine. Apart from streamlining the intra-hospital procedures between different medical specialists, wards and the laboratory, at several hospitals the communication with the local Thrombosis Service Unit (*Trombosedienst*) was brought forward as a point that needed attention. In The Netherlands the monitoring of outpatients treated with coumarin derivates is executed by local service units for thrombosis organised in a National Federation. These units serve as a centre of expertise with regard to the use of anticoagulants. As these centres see the patients that use anticoagulants when they leave the hospital, they can to a certain extent judge the appropriateness of the in-hospital regime.

Personal experience with several peer-review studies on this particular topic in a series of hospitals is that it is a difficult topic to monitor because most of the necessary data are not documented in a way that is accessible for review. Quite often a separate form needs to be filled in concurrently with practice to get a reliable impression of the real practice compared to anticoagulant protocols. The studies that were conducted showed that there was still a considerable amount of non-compliance to pre-established protocols, e.g. patients that should have had anticoagulants preoperatively did not

receive any (operations were considered not significant enough), or the dosage schemes were not adhered to. The need for further 'fine-tuning' of the procedures connected to prophylactic anticoagulant use will probably keep this topic high on the agenda of priority meetings and peer-review committees. The realisation of change seems largely dependent on research findings that will settle the debates on the effectiveness of the various anticoagulant regimes, together with the willingness of especially surgical specialties to act in accordance to knowledge that develops within the domain of internal medicine.

6.5.3 *Record-keeping*

Since the introduction of peer review in The Netherlands, record-keeping has been a constant item of attention. It seems self-evident that proper record-keeping is a prerequisite for retrospective peer review; the medical record is for the majority of peer-review studies the main source for data about the clinical process. Although several national attempts can be reported to improve (the standardisation) of record-keeping (LSV/SMR 1971, CBO 1983) the general situation is as described in the paragraph on the participating 15 Dutch hospitals in the assessment report of the COMAC/HSR/QA project:

> *"All participating hospitals have indicated that they have a Records Department that stores, administers and often analyzes patient records. A variety of rules and regulations is applied as to storage, retrieval, and confidentiality. There are as many clinical records as there are clinical departments: uniformity is a word that is not often heard in this respect. The most prevalent form of medical record is a clinical record which is the property of the hospital. Separate records exist for outpatient care and specialised departments (emergency, haemodialysis): the outpatient record is the property of the specialist. The 'one-patient-one-file' philosophy is far from uniform in Dutch hospitals. Consultations are reported on separate documents in the file, a transfer to another departments or specialist/consultant often leads to a new record. In some hospitals attempts are underway to unify the patient record and combine the records for all portions of patient care. The nursing record is invariably a separate document. Retrieval is most common through indexing according to birth data or unique patient number. The National clinical information system of the* SIG *(Foundation for Health-Care Information) makes use of discharge diagnosis."*
> (1992, E. REERINK:77)

'WHY' — The reasons brought forward during the 39 priority meetings where record-keeping was nominated as a topic for peer review are invariably related to the necessity to have proper communication through documentation of patient care to increase medical effectiveness as well as hospital efficiency and patient satisfaction.

Disappointing experiences of medical specialists, because of the lack of data in medical records, are usually an incentive to propose the topic. Legal arguments (legislation about patient information documentation, claims) were also several times brought forward to stress the importance of record-keeping as a topic for peer review.

'WHAT' — Record-keeping as a topic can cover a series of different elements of documentation and retrieval of patient information. The following elements of record-keeping were mentioned during the different priority meetings:

- the content of medical records for in-patients, focusing on issues as information on history taking, physical examination, reasons for admission, test results, diagnoses, reports of surgery;
- the availability of medical records;
- the readability of medical records;
- the use of special forms by consulting medical specialists;
- the use and quality of the progress notes (decursus);
- the quality of discharge letters;
- the timing of discharge letters and the use of preliminary discharge letters;
- the standardisation of record-keeping between departments;
- the merging of the in-patient and outpatient records.

The essence of all these approaches was to set criteria for proper record-keeping, on the content of the record as well as on the procedures of record-keeping. In the majority of hospitals separate committees exist that are working on this standardisation, usually composed of clinical specialists, a representative from management and the head of the record department. During the priority meetings it was often requested that the peer-review committee should perform an audit to evaluate whether record-keeping in practice was in accordance with the local hospital protocol.

'HOW' — Record-keeping is by its nature a managerial instrument, thus it is rather artificial to make a distinction between the 'what' and 'how' dimension of the topic. The question what should be recorded is intertwined with the moment and place of recording; the documented information becomes more useful through being timely and accessible. Audit studies on medical records can focus on each of the different aspects mentioned earlier, although in practice an evaluation of the quality of the actual content of the notes made in records is difficult to perform. The execution of an audit study of record-keeping usually asks for the existence of clear-cut criteria (preferably of a yes/no nature) and selection of the sample of records that will be used for review. Over the years a variety of audit studies on record-keeping has been performed in Dutch hospitals and in several hospitals a kind of tradition has evolved of yearly audits with reporting of the results in the medical staff (e.g. Heerlen, Roermond, Almelo). Experience shows that audit on record-keeping needs continuous reinforcement and improvements gained in one year can be lost in the following years when no special attention is paid to the topic. Discussions on and experimenting with automated records have to date not

resulted in a substantial improvement of the problems with record-keeping as they were identified during the priority meetings.

Put in a European perspective the Dutch situation does not seem to be very different from the situation in other countries. The 262 hospitals participating in the concerted action programme on quality assurance in hospitals reported in 1990 that 84% had a Records Department, 79% has a single record for every patient in the hospital, 55% have separate records at the emergency department and 49% have different records for different specialties. Guidelines on record-keeping existed in 1990 in 55% of the hospitals and 37% had performed a peer-review study of record-keeping during the previous four years. A subgroup of 86 European hospitals performed peer-review studies on record-keeping between 1990 and 1993. The favourite strategies to improve the quality of the record-keeping they report are periodical audit of sample records, the (re)formulation of guidelines and discussions on record-keeping during staff meetings (KLAZINGA 1994).

Change in record-keeping seems mainly to be dependent on the attitude and motivation of clinical specialists towards proper documentation. Continuous enforcement of the need of documentation is necessary to keep the topic alive. Logistics and computerisation seem less relevant when it comes to achieving improvements.

6.5.4 *Consultation of colleagues*

The topic 'consultation of colleagues' covers several sub-topics that all have to do with the way medical specialists communicate with each other. The reasons to bring forward this issue relates to various dimensions of quality ('why'):

- medical effectiveness; consultations performed too late to be of any use, badly communicated and or performed by interns instead of a specialist;
- patient satisfaction; patients have to stay longer than necessary in the hospital to wait for a consultation by another specialist;
- operational efficiency; hospital throughput is influenced by waiting times for consultations;
- economic efficiency; consultations have an indirect impact on the payment of the hospital and the production capacity of the specialist who requests a consultation from one of his colleagues. It has direct financial consequences for the person performing the consultation, who will receive a fee.

In addition to these different reasons there is sometimes an element of professional competition at stake; recognition of a specialty can also be shown by the fact that other specialists ask their opinion when treating patients with complaints or diseases that they consider their professional domain. This mixture of professional and economic reasons makes consultation of colleagues a difficult topic to handle. Perhaps

this explains that it is nominated more often as a problem than actually selected as a topic that could be solved through peer review.

A further qualitative analysis of the 36 times that the topic was raised shows the following:

'WHAT' — Although the majority of problems related to consultations by colleagues have to do with the logistics, in several reports of priority meetings it can be noticed that the indication for consultations is questioned. This seems especially relevant for relatively new specialties such as geriatrics and rehabilitation medicine. In some other reports it is questioned whether the practice of having a routine preoperative consultation for elderly persons by a specialist in internal medicine is appropriate. This practice is usually justified by the fact that it is done in hospitals without interns (AGIOs/AGNIOs) who perform these tasks in many other hospitals (see 5.2.5).

'HOW' — Apart from the justification of the indication for a consultation of a colleague, an exact phrasing of the question to the consultant was considered important. In 2 of the 36 cases intercollegiate consultation was mentioned as a topic for audit, the correct phrasing of consultation requests was considered the main problem.

'WHO' — Overlap between specialties becomes explicit in the practice of intercollegiate consultation. Although most reports do not mention any specific specialties, several times paediatric consultations for children that need an operation are mentioned, and the consultation decision-making process of interns (AGIOs/AGNIOs) at the emergency department are brought forward, especially in relation to patients that need the attention of more than one medical specialist. The 'who' question also covers the assignment of responsibilities. With respect to intercollegiate consultation there seem to be two areas where the assignment of responsibilities is not clear:

- Interns (AGIOs/AGNIOs) perform consultations under the responsibility of a specialist. Although in teaching hospitals this has become common practice, the introduction of AGNIOs in both teaching hospitals and non-teaching hospitals whose supervision is often unclear, has raised questions about the quality of the consultations.
- Responsibilities of a specialist who performs a consultation. Does the consulting specialist becomes a fellow-attending physician or does he/she take over the main responsibility for treatment (*'consulent, medebehandelaar, hoofdbehandelaar'*). This issue was mentioned as the main problem in 6 of 36 cases. Related to these 3 different types of responsibilities that can be associated with a consultation of a colleague is the commitment to the advice given during a consultation. Does a medical specialist have to follow the advice of consultants and what are the consequences for the inter professional relations if the advice is not followed.

'WHERE' — In most cases consultation takes place during the time a patient is admitted to the hospital. To prevent problems with waiting times for consultations, it was suggested several times to expand the possibilities for consultation at the outpa-

tient department before or after admission of the patient (similar to the solutions found for the anaesthesiologists and preoperative assessment as described in 6.5.1). This asks for administrative and organisational adjustments but is especially relevant for preoperative consultations and consultations (e.g. on co-morbidity) that would probably not influence the length of stay of a patient in the hospital.

'WHEN' — Waiting times for intercollegiate consultations are brought forward 13 times out of the 36 times the topic was mentioned. Long waiting-times influence the productivity of the physician who asks for a consultation and may have an (unnecessary) effect on the length of stay of patients. During the discussions the following reasons/solutions to the waiting problems were brought forward:

- general hospital rule that interprofessional consultations should be performed within 24 hours;
- special forms for urgent consultations by colleagues;
- more consultations at the outpatient department after discharge of the patient;
- additional tests as prescribed by the consultant can be done on an ambulatory basis and should not result in a prolonged stay of the patient in the hospital;
- it takes too much time before a consultation request is sent to the consultant;
- consultations are not logically integrated in the working pattern of interns;
- consultation requests are not communicated to the interns;
- specialists wait too long with asking a consultation (for example preoperatively).

During the priority meetings suggestions were done to analyse the extent of the problem (especially in relation to prolonged stay of patients in the hospital), analyse the logistics and perform detailed audit studies on some of the aspects.

'INFORMATION' — The necessity to improve information exchange related to intercollegiate consultation is mentioned in 15 of the 36 cases. The following areas for improvement are brought forward:

- clear phrasing, on paper, of the question asked to the consultant;
- more adequate clinical information for the consultant so he/she can make a better assessment;
- more adequate answers of the consultants on the consultation form;
- improved information to consultants/fellow attending-physicians by the main attending physician when the patient is released.

Several of these items are related to the record-keeping system.

'COMMUNICATION' — In addition to the written information it is mentioned several times that oral communication between specialists should be improved. Especially the co-ordination of treatment for patients that have more than one attending physician is asked for. In a few cases problems in relation to the accessibility of certain specialties (psychiatry was mentioned more than once) were brought forward.

'FEEDBACK' — Feedback is only a few times mentioned explicitly as the main problem but implicitly it is prevalent in the problems brought forward as information and communication problems.

Changes to solve to the problems related to consultation of colleagues are sought in two areas:

- Reaching of agreement on the indication for consultations and the different responsibilities that are related to it. This asks for formal agreement between specialties, often endorsed at the level of the medical staff. Thus a 'negotiation forum' is needed instead of an audit activity. One should keep in mind that such agreements are never of a neutral nature: considerations of clinical and economic autonomy are at stake. Hence, agreements are not only reached between individual specialists who have to establish a working relation with mutual dependencies, but the agreement should also be compatible with the general opinion on group level e.g. the respective scientific associations.
- Improving the logistics of intercollegiate consultation. Depending on the area of focus, different methods for problem analysis and logistical improvement can be applied. Experience shows, that logistical improvements are difficult to implement when more fundamental intra-professional problems are not solved beforehand. Sometimes studies on logistics may help to facilitate a more fundamental debate on consultation; an audit study cannot solve existing conflicts between specialties but may help to rationalise the debate.

6.5.5 *Blood-transfusion policy*[14]

'WHY' — Increase of efficiency of blood use and risk-reduction (limitation of indications and use of less risky blood products), were the main reasons expressed during 29 priority meetings in which specialists had nominated blood transfusion as a topic for peer review. Blood products in The Netherlands are prepared and distributed through the 22 regional blood banks and in the hospital the Haematology Laboratory takes charge of the in-hospital logistics. Since priority meetings were held in the seventies, the efficiency argument has been used to promote blood transfusion as a topic for peer review. The moral obligation to use the scarce blood products available in an appropriate way, combined with the fact that hospitals have to pay separately for the blood they order from the blood bank and thus can save costs through efficient blood use, has enhanced its popularity as an audit topic. Although

[14] *This paragraph is partly based on Van Everdingen J.J.E., Klazinga N.S., Casparie A.F. Blood-Transfusion Policy in Dutch Hospitals (1988), International Journal on Health Care Quality Assurance vol. 1 no. 1 pp. 16-19, and Klazinga N.S., Error Policies at the Bedside. Quality Management of Blood Transfusion in Dutch Hospitals, in: Smit Sibinga C.Th., Das P.C. and Heiniger H.J., Good Manufacturing Practice in Transfusion Medicine, Kluwer Academic Publishers, 1993, pp. 253-263.*

indications for blood transfusion were on the agenda from the beginning, this discussion got a new dimension since the mid-eighties when the consequences of contamination with the HIV virus became evident and in the nineties with the practice of autologue blood transfusions. Blood transfusion was also the topic of the first consensus conference held under the aegis of CBO's Scientific Council in 1982 (revised in 1989) (see chapter 7). There is evidence that the guidelines formulated during the consensus conference had an impact on blood transfusion policy in Dutch hospitals (VAN EVERDINGEN 1988).

'WHAT' — During several priority meetings the indication for blood transfusion and the type and amount of blood that should be given were the main concerns. The debate concentrated on the rationale of giving blood to patients with chronic anaemia and patients with anaemia as the consequence of loosing blood during an operation. In this respect the predictive value of specific low haemoglobin (Hb) and or haematocrit (Hct) levels is also debated together with the optimal hematocrit to be reached during and shortly after an operation. Intertwined with the questions about proper indications for blood runs the discussion on the use of more specific blood products such as red-cell concentrates in stead of whole blood and the indications for fresh frozen plasma (FFP) and albumin. Over the years the discussion on 'blood use' has differentiated in a debate on the proper indications and use of a series of specific blood products. In 1989 the blood banks reported that the use of whole blood in Dutch hospitals had declined to only 5% of the total use of blood.

The responsibility for the quality of the blood products is in the hands of the heads of the haematology laboratories and the blood banks and is not an issue discussed during priority meetings or in peer-review committees. Under the label of 'good laboratory practice' it meets, however, a lot of attention within the circles of laboratories and blood banks (SMIT SIBINGA ET AL., 1994, ZEEMAN, 1995). One aspect of the working method of the laboratory related to the activities of the clinical specialists is the use of the so-called 'Type-and-Screen strategy' for blood-group typing (A, B, O, AB) and identification of irregular antibodies in the blood of potential blood recipients (to prevent adverse transfusion reactions). The quality of this procedure (i.e. the scope and thoroughness of the screening) requests a certain amount of time and has to be weighed against the urgency with which blood is needed. Thus the interests of the specialist (getting blood as soon as possible after it is ordered; e.g. risks for the patient when he does not get blood products) needs to be balanced against proper preparation and cross-testing of blood to diminish the risks for transfusion reactions (risks for the patient when he gets blood products).

'HOW' — The practical organisation of blood transfusion have over the years been a major point of interest brought forward during priority meetings. Managerial procedures connected to blood ordering, blood preparation, blood storing, blood adminis-

tering and evaluation of blood use are considered of great importance. The following managerial elements can de recognised:

- the use of standard blood ordering lists; a listing of how many units of blood should be prepared routinely for different types of operations. Thus the ordering of blood is standardised and blood units are prepared depending on the elective operation schedule;
- the identification of blood samples;
- registration of (patients with) irregular antibodies against red blood cells;
- using the cross/transfusion ratio (units of blood prepared for transfusion compared to the number of units that were actually given over a certain period of time) as a measurement for the efficiency of blood transfusion practice;
- registration of blood-transfusion reactions;
- installation of a blood transfusion committee in the hospital.

In a paper based on an evaluation of blood transfusion policy in Dutch hospitals (VAN EVERDINGEN, KLAZINGA, CASPARIE, 1988) seventeen audit studies on blood transfusion in Dutch hospitals are summarised. These studies demonstrate for example that:

- In one study of 983 blood samples the birth date identification was missing in 280.
- In an other study of 78 samples of irregular antibodies this was not mentioned in the medical record in eight cases and mentioned to the GP in merely four cases.
- Reduction of the number of cross/match tests from 750 to 500 monthly as a consequence of the use of a blood-order list.
- C/T ratios over three years that stay on average 1.7.
- Reduction of the percentage of outdated blood from 5.2% in 1983 to 3.9% in 1985.

The performance of these studies illustrates the type of activities that seem to be undertaken in hospitals. A similar attempt, where the use of type-and-screen strategies combined with the use of a standard-blood ordering list was evaluated (VAN EVERDINGEN, KLAZINGA, DINKELAAR, VAN DER DOES 1987) showed at that time the growing popularity of these forms of logistical management but at the same time illustrated the differences in amounts of blood used for similar operations in different hospitals. It seems that since 1982 a growing number of hospitals have set up a blood transfusion committee. The assessment questionnaire of the concerted action programme on quality assurance in hospitals showed that in 1990 in the fourteen participating Dutch hospitals[15] has a blood transfusion committee, 14 had guidelines on blood transfusion, 11 used a blood ordering list and 9 knew their percentage of adverse transfusion reactions in the total number of transfusions given. For the total group of 262 European hospitals these numbers were 20%, 49%, 42% and 52%. The results of the evaluation questionnaire of the concerted action programme contain some data that might provide an indication that a growing interest in blood transfusion policy exits in

[15] *One of the fifteen participating hospitals did not fill in this section of the questionnaire.*

more countries. Comparison of the situation in 113 hospitals in 1990 and 1993 shows that the number of blood transfusion committees had risen from 24% to 34%, existence of guidelines on blood transfusion from 47% to 60%, standard blood ordering lists from 44% to 59% and registration of adverse reactions on blood transfusion from 45% to 49%. The conclusion seems justified that with the increasing external pressures of cost-containment and AIDS, the rationalisation of the use of blood products and the logistical arrangements in hospitals have increased. In Dutch hospitals the managerial profile of blood transfusion has evolved towards a series of blood products with specific indications, standardisation of blood ordering procedures for surgery, control of process (several type of checks in working processes and data registration such as sample identification) and control of outcome (cross/transfusion ratio, registration of irregular antibodies and registration of transfusion reactions). The growing complexity of transfusion practice has resulted in appeals in Dutch medical literature to start in The Netherlands (as already existing in several other European countries) with a specialisation for transfusion medicine (VAN DIJK ET AL. 1994). A proposal to start with a separate specialty has been rejected by the *Centraal College,* but at present the introduction of the transfusionist as a subspecialty of internal medicine is under discussion. Available peer-review studies show that the situation can still be improved. A next step, that is not reflected in the material of the priority meetings because it became a discussion item after 1992, is the obligation for clinicians to fill in an order form with an indication if they order blood products. This will become mandatory because of a new law on blood transfusion practice (accepted in Parliament in 1988) of which the articles on blood product prescribing have become operational in 1995. At present this new development is a topic of discussion in blood transfusion committees and peer-review committees in many Dutch hospitals.

Changes in blood-transfusion practice are enforced by external developments (HIV, cost-control), and are reflected in managerial (logistics) as well as professional (transfusionist) adaptations. An overall awareness of the risks involved has in a relatively short period of fifteen years resulted in a more differentiated and formalised practice of blood-transfusion by medical specialists with a more stringent distribution and monitoring system executed by the laboratory. In 1995 the different organisations involved in blood transfusion policy issued a report on norms, standards and responsibilities related to blood transfusion policy in hospitals (College on Blood transfusion of the Dutch Red Cross, 1995). In 1996 this formalisation process was further strengthened during the third consensus conference on blood transfusion in June (CBO, 1996), partly based on a new inquiry about blood transfusion practice in Dutch hospitals (BUITING AND DINKELAAR, 1996).

6.5.6 *Inappropriate laboratory testing*

This topic clusters the 27 times that during a priority meeting laboratory testing was referred to as 'useless', 'over-consumption' and 'doubling of tests'. In all cases it relates both to the ratio and the logistics of the interaction between medical specialists and the clinical laboratory. In this respect the topic bears similarities with two other topics: STAT testing (6.5.14) and blood-transfusion policy (6.5.5).

'WHY' — In all cases both the effectiveness and the efficiency of specialist care play an important role. The effectiveness is usually linked to clinical epidemiological notions (the predictive value of a test) and the efficiency is both linked to organisational efficiency and costs. Patient satisfaction as an element of quality seems to play a minor role in the discussions about this topic: only once the ethical side of useless double testing is expressed in a report.

'WHAT' — The 'what' question has the following dimensions:

- How valid are the laboratory results?
- What is the added value of the laboratory results the clinician gets in addition to the tests he asked for, as a result of the introduction of auto-analysers?
- What are the indications for routinely repeated testing?

In several cases some explicit indications and tests are mentioned that should be the focus of the peer review committee when studying useless laboratory testing:

- indication for leukocyte differentiation (mentioned 5 times; in 1986 the Scientific council of CBO published a report on this topic with general guidelines on the use of leukocytes differentiation tests);
- enzyme testing when there is a suspicion for myocardial infarction;
- routine urine testing at the outpatient department;
- erythrocyte sedimentation rate (ESR) testing in elderly people.

Although the 'what' question seems to play a major role in this topic, there were also several logistical issues brought forward that relate to the 'how' question. Seven times this was the major point of entry to tackle the topic by presenting it as a problem of 'double testing'.

'HOW' — The different elements of the 'how' question as reflected in the reports are the following:

'WHO' — In several cases authorisation of nursing staff to order laboratory tests was considered an important part of the problem.

'WHERE' — a major part of the logistical problems was located at the out-patient departments. Problems with transferring information in time and providing complete information on individual cases at the moment of consultation were considered causes of double testing. The problem was claimed to exist at the clinical departments also.

'WHEN' — Timely provision of laboratory results was mentioned in one report as a remedy against over-ordering of clinicians.

'INFORMATION' — a correct flow of information from the person who orders the test until the moment this person gets the results and uses them, seems part of the answer to the problems of useless and double-testing. The following remarks were made:

- better clinical information should be provided to the laboratory;
- laboratory results get lost easily;
- it is not clear how long certain laboratory results are valid;
- the results are difficult to find when you need them.

'FEEDBACK' — The above mentioned problems illustrate that feedback through laboratory testing is often far from optimal and has the tendency to get worse when specialists as a result of not being able to find laboratory results start ordering the tests again.

Basically the problem of useless laboratory testing comes down to two problems: the ratio of the testing and the logistics of testing and information transfer. The first point can only be tackled when focusing at specific tests. This asks for a clinical epidemiological approach that usually needs the input of both the clinician (who knows about the clinical situation of his patients) and the clinical chemist (who knows about the reliability of the testing procedure). Action may result in a protocol but also asks for an educational approach towards the medical staff, especially when the new protocol means shifting away from routine procedures.

The logistical problems may become less when testing is rationalised, however, depending on how things are organised in a specific hospital, there is often room for improvement. Usually the information flow plays a crucial role in efficient testing practices and this relates both to the working methods of the laboratory (in most hospitals to a large extent automated), and the information flow towards medical records at the different wards and the outpatient department. The existence of a uniform medical record in the clinic and in the outpatient department may help to facilitate improvements.

Although the efficiency argument plays an important role in avoiding useless laboratory testing, organisational efficiency does not necessarily result in cost savings. Doing fewer laboratory tests does not automatically save money. Integral costs of test are related to the real costs of the laboratory and within the internal budgeting system cost reduction for the laboratory is only attainable if the test reduction has such a major impact on the laboratory production that the laboratory can work with less personnel and material. Material costs are usually already financed (investments in expensive equipment) and additional material costs for tests (fluids etc.) are marginal. Personnel reductions are difficult, given the claim medical specialists put on the laboratory: to provide services 24 hours a day (see also 6.5.14). Limitation of the production of the laboratory may, however, result in less income for the hospital and result in a decrease of the internal budget for the laboratory. Thus improvements in laboratory testing will

result in limited effects on medical effectiveness, major effects on medical and organisational efficiency, marginal effects on real costs and in the worst case a decrease of the budget of the laboratory. Thus the net result may be a decline in laboratory services and increased delays in test results. What starts as an attempt to improve the quality may in the long run result in a decrease of quality. This analysis illustrates that a more synergistic intertwining of quality-management activities and financial management seems to be a prerequisite for lasting success (see also chapter 8).

6.5.7 *Resuscitation policy*

Resuscitation policy is nominated as a topic for peer review 26 times and selected as a top priority 12 times. The way problems related to resuscitation policy are phrased cover two complementary but distinct areas: the organisation of resuscitations (ten times the main focus in the problem formulation) and the decision-making process related to resuscitations (also ten times the main focus). The decision-making process refers to the use of Do-Not Resuscitate codes six times, and the care for terminally ill patients or passive euthanasia policy four times.

'WHY' — The discussion about the decision-making process underlying resuscitation attempts shows that different aspects of quality are involved. At the core of the debate about the use of Do-Not-Resuscitate (DNR) codes is the finding of a balance between medical effectiveness and patient satisfaction: to what extent does a resuscitation attempt contribute to the well-being of a patient both in terms of quality of life as in terms of added life-years. Apart from the decision-making process in an individual case, social and political notions are involved. Cost containment asks for justification of the use of resources; in two reports the justification of the enormous use of resources on terminally-ill patients was brought forward as one of the arguments to have a clear-cut policy towards resuscitation and DNR codes. Ethical notions are also involved; within Dutch society there has been an active debate about euthanasia since several decades. These issues are discussed openly and have been put on the agenda of politicians. In 1991 an extensive study among Dutch physicians was performed on request of the government and with the support of the Royal Dutch Medical Association (PIJNENBORG ET AL. 1994). The study showed the extent and nuances of the existing practice, and was used as the bases of further law-making. Although the resuscitation policy debate is different from the euthanasia debate, the existing Dutch (medical) culture can explain why the need to discuss these issues comes forward during priority meetings.

In 1990 a working group of the Scientific Council of CBO produced a report on resuscitation policies in Dutch hospitals. The report does not provide clear-cut answers on the indications for resuscitation but rather provides guidelines for the procedures that should exist in a hospital to discuss these issues in a correct way. The report also lists the

different medical and ethical notions that should be taken into account when trying to reach a judgement (CBO, 1990, VAN DELDEN 1993).

'WHAT' — The debates during the priority meetings showed that the reason to put this topic on the priority list was the need to have a more transparent communication and decision-making procedure in the hospital. Further coding of the prognoses of patients through classification was suggested. Lack of communication among specialists, and with interns and nursing staff was mentioned several times. The necessity to co-ordinate the support given to terminally ill patients (oncology patients were mentioned as a specific group) was stressed.

When the organisation of resuscitation was mentioned as a topic (and the decision-making process leading to it was left aside) the skills needed to perform resuscitation were brought forward three times as a major concern. Specific instructions and training courses for interns, allied health professionals and nursing staff were suggested.

'HOW' — Both the organisation of resuscitation and the organisation of the decision-making process leading to resuscitation can be the source of problems. The following aspects seem relevant:

'WHO' — In the CBO report the different responsibilities in relation to the decision not to resuscitate are explored. Although no clear-cut rules can be provided, wishes of the patient play a prominent role and the majority of group members consider the final responsibility of the decision one of the treating physician, taken after the necessary consultation.

The person(s) who should perform resuscitations is also a matter of debate. Although in most hospitals 'crash teams' exist whose members are in charge of the resuscitations (and thus are officially assigned with the responsibility), usually other hospital personnel starts the reanimation attempt (for instance when there is a cardiac arrest). This implies that a sufficient number of hospital personnel, especially working in areas where there are not constantly physicians around, should be trained in resuscitation.

'WHERE' — The alarm procedure (whom to notify and how) was mentioned two times as an item of concern. Availability of crash cars was mentioned once as a problem.

'WHEN' — For a correct use of DNR CODEs it is necessary to structure communication and state clearly in a written procedure when debates about DNR CODEs for individual patients take place, for how long the decisions are valid and how they are communicated further.

'INFORMATION' — Record-keeping is instrumental to improving reanimation practice. The following elements were mentioned:

- Resuscitation policy and procedures should be written down in a protocol that is available for interns and other hospital staff (mentioned two times).
- DNR CODEs should be easy to retrieve in the medical record in case of an emergency.
- Results of resuscitation should be documented (and used for evaluation).

- Functioning of material (crash car) should be documented.

'FEEDBACK' — For a correct communication about resuscitation policies continuous feedback about DNR-decisions seems evident and is part of the procedural arrangements. Feedback on the resuscitation policy in general can be provided through a peer-review study, analysing structure (material) process (organisation) and outcome (successful resuscitation attempts). These studies can show organisational deficiencies or may stress the need for better communication related to the decision-making processes surrounding reanimation. Dutch examples of such audit studies are reported by Van Vlies et al. (1987) and Casparie and Touw (1983).

Audit studies can thus be a vehicle for introducing change in resuscitation policy. They seem, however, more appropriate to address the management issues involved in resuscitation, than as a 'solution' for the underlying debate on related values, that asks for a more fundamental discussion among the professionals involved.

6.5.8 *Policies related to information for patients*

'Information for patients' clusters the 24 times that topics related to the physician/patient communication were nominated as a priority. In general, information for patients was considered an important topic but difficult to tackle as part of medical audit; as a result it was selected as a top priority only 3 times.

'WHY' — Reasons to inform the patient were related to both patient satisfaction and medical effectiveness. Social notions that informing patients becomes more important were also expressed during the priority meetings. In one meeting reference to legislation on patient rights was made. Economic reasons were brought forward twice as an argument; patient information was seen in relation to the marketing activities of the hospital.

'WHAT' — Improvement of the physician/patient communication was considered relevant in general, but some specific areas for patient information were mentioned:

- informing patients about procedures related to surgery;
- informing patients about post-operative care;
- informing oncology patients about medication with cytostatic drugs;
- informing patient about radiology procedures (3 times);
- informing patients about the existence of disease specific patient organisations;
- informing relatives of patients who are in the ICU;
- informing patients with myocardial infarction about diets.

Two times, the attitude of medical specialists towards patients was mentioned as a topic and three times 'bad news' conversations were considered as a topic for peer review.

'HOW' — Although the focus in this cluster is rather on the general notion to improve patient/physician communication and operationalisation proves to be difficult,

several concrete topics related to the performance of patient/physician communication were suggested:

- improving the privacy for patients, especially for clinical patients during their discussions with physicians;
- improvement of the interpreter's service for foreign patients;
- new patient brochures;
- use of patient questionnaires.

Although the interest in patient education as reflected in the choice in topics for peer review has remained relatively low over the three periods that were analysed, the general interest in this issue outside the infrastructure of the peer review committee is increasing. This can be concluded from the growing number of patient information offices in hospitals and the increasing amount of brochures and leaflets for patients. Recently this interest received an additional external incentive because a new law on the need to inform patients was introduced (WGBO, *Wet Geneeskundige Behandelovereenkomst*) in 1995. This law reflects the present attempts of government to strengthen the position of patients towards the health-care providers (see also chapter 3), and should be an incentive to improve the patient-doctor communication and thus the quality of care.

6.5.9 *Policies at the Emergency Department*

Emergency departments are one of the areas in the hospital where different specialties and supportive services interact intensively, with a high turnover for mostly 24 hours a day. Given its function it is not surprising that problems brought forward in relation to the Emergency Department are often of an organisational nature.

'WHY' — The Emergency Department was mentioned 22 times during the 101 priority meetings as the possible focus of a peer-review study. In several cases the overall function of the Emergency Department was questioned, especially in relation to the type of patients presented. For this topic medical effectiveness, individual patient satisfaction and social notions about the function of a hospital seem to interact. In the opinion of several specialists, patients appeared at the Emergency Departments that should have been seen and/or treated first by the general practitioner. Although the general rule is that patients go to their GP first, all hospitals are increasingly confronted with patients that arrive unannounced. To refuse a patient would be very client-unfriendly and could result in bad publicity. Several times audit studies were proposed to study the scope of this problem and discuss the results with GPs and hospital management.

The legal question of who should be responsible of patients who present themselves unannounced was also raised.

'WHAT' — Apart from logistics the following areas of care were named explicitly as focus of attention: fracture treatment, tetanus prophylaxis, radiology testing, acute abdomen and non-surgical emergencies.

Not included in the total of 22 are the eight times that the treatment of suicide attempts at the emergency ward was named as a separate topic. (see CBO report on the treatment of suicidal patients at the emergency department 1991).

'HOW' — Apart from discussions about the functional profile of the emergency room ('why') the majority of problems raised have to with the organisation of specialist care at the emergency department.

'WHO' — Assignment of responsibilities and decision-making on which patient should be seen by which specialist (triage) is considered an important issue. It was presented as the main problem during six meetings. The quality of the triage is directly related to the person in charge at the emergency department to do the first patient assessment. Over the past twenty years this function has become the domain of interns, both in training and not in training (AGIOs/AGNIOs, see 5.2.5). During the sixties interns (AGIOs) where mainly found in teaching hospitals and interns from different specialties were on duty during the evenings and nights at the emergency room in a rotating scheme. During the seventies it was recognised that it was in the interest of the hospital that a physician was available to perform duties at the emergency department 24 hours a day. A financial norm was introduced (*'wachtassistentennorm'*) that allowed hospital management to pay part of the salary of interns to perform the duties, thus facilitating their presence and solving a potential conflict for interns doing work for partnerships of medical specialists and for the hospital at the same time. When, as a result of the decline in the number of training positions and the growing volume of specialist care in non-teaching hospitals, without increase in specialist staff, the AGNIO was introduced, AGNIOs started to work at most emergency rooms, partly financed through the funds set aside by hospital management.

The net result was that interns with less links towards specific specialties started to conduct the triage at the emergency department in both teaching and non-teaching hospitals.

The quality of the triage has not only consequences in terms of medical effectiveness and efficiency (patients are seen by the wrong specialist) but has also economic consequences for the specialists who are asked in for consultation. The house staff study showed that the lack of a strong link of AGNIOs with one specialty, results in poorer intercollegiate feedback. It creates less identification with a specialty and less possibilities for AGNIOs to follow up on patients they see at the Emergency Department. This may result in a decline of the quality of the triage (BEDAUX AND KLAZINGA 1987).

Another aspect of the assignment of responsibilities to interns is the problem, raised during one of the meetings, to what extent interns are permitted to order additional radiological examinations.

'WHEN' — Waiting times were also considered one of the main organisational problems at the emergency department. The following type of waiting times were mentioned:

- waiting times for urgent laboratory tests;
- waiting time for consulting specialists (this point was raised 3 times in relation to the acute abdomen);
- waiting time for consultation by a radiologist as a second opinion to the specialist in charge.

'INFORMATION' — Contrary to reports in the international literature, the possible use of a trauma score was raised during none of the meetings. Such a 'score' to differentiate and monitor patients who present themselves at the Emergency Department seems at present not a common managerial instrument as in the case in several other countries.

'FEEDBACK' — The failure of several feedback-loops seems to play a role in organisational problems at the emergency department. The following steps in the communication chain were mentioned as potentially weak:

- specialist informing the emergency department that he just spoke with a GP and that a patient can be expected;
- communication between emergency department and operation rooms informing that an OR should be prepared;
- communication between emergency departments and wards where acute patients should be admitted.

Although in many hospitals guidelines exist for procedures at the Emergency Department, experience shows that different logistical problems appear over time. An effective decision-making process after admission of a patient at the Emergency Department seems of major importance. Rationalisation of decision-making processes and explicit responsibilities of the professional involved are crucial for quality improvement. Until now turf battles between specialties at the Emergency Department (e.g. general surgeons and orthopaedic surgeons) have blocked the development of 'emergency medicine' as a separate specialty in The Netherlands. Like with the 'intensivist' at the ICU (see 6.5.13) standardisation of responsibilities in this multiprofessional arena seems to be blocked by the vested interests of existing specialties (KLAZINGA, SCHEPERS 1996).

6.5.10 Anti-bedsores policy

The prevention and treatment of bedsores is often considered to be a nursing problem. Nevertheless it was nominated as a priority by medical specialists during 23 priority meetings although nurses took only very rarely part in the priority meetings.

A qualitative analysis of the problems associated with peer-review studies on bedsores, as reflected in the reports of the priority meetings, reveals the following:

'WHY' — General opinion is that bedsores can be prevented and treatment asks for a rational approach. Medical effectiveness is the main goal but prevention of bedsores is also strongly related to patient satisfaction and has a major impact on the length of stay of patients (and thus prevention has also organisational and economic consequences). The use of expensive technologies to prevent and treat (for example clinitron beds) is another economic reason to select this topic.

'WHAT' — Debates on the prevention and treatment of bedsores concentrate on the use of a risk-score list as an instrument of prevention management and the effectiveness of different treatment modalities. In 1985 and 1986 the Scientific Council of CBO has, in collaboration with the respective scientific associations and nursing organisations, held consensus conferences on the prevention and treatment of bedsores. These consensus texts are widely used in hospitals as a source for the formulation of local protocols (VAN EVERDINGEN, 1988).

'HOW' — The following logistical aspects are involved in the prevention and therapy of bedsores:

'WHO' — In many hospitals a bedsores team is active, mostly consisting of nurses and a dermatologist. This team promotes and evaluates preventive and therapeutical measures.

'INFORMATION' — Most hospitals start with gathering information on the incidence and prevalence of bedsores. Although comparison between hospitals based on such data is difficult because of the problems with standardisation, intra-hospital comparison over time may help to obtain a good insight into the scope of the problem in a hospital and the effects of the preventive and therapeutic measures. When this information is linked to the use of the risk score list, adaptation of general risk-score lists to specific use in a hospitals is possible.

'FEEDBACK' — Continuous feedback based on information on the incidence and prevalence of bedsores serves as a continuous incentive towards nursing staff to enforce preventive actions.

Prevention and treatment of bedsores seems to be chosen as a topic for medical peer review by many hospitals not only because of its medical relevance but also because the performing of a peer-review study is considered feasible in practice and promotes co-operation between medical and nursing staff. This 'co-operation' is considered necessary to assure that the prevention and treatment of bedsores remains under medical control whilst nurses try to incorporate, at least the prevention, in their professional domain.

The attention given to bedsores policies in Dutch hospitals seems comparable to the situation in other European countries. As part of the concerted action programme on

quality assurance in hospitals 1990-1993 a total of 89 of the initial 262 hospitals tried to execute a peer-review study of the prevention of pressure sores. In 1990 a total of 138 of 262 hospitals reported that they already had guidelines on the prevention of bedsores and 51 has previously performed an audit study of this topic. For the participating 15 Dutch hospitals these numbers were 11 and 4.

The dominant involvement of nurses was shown by the fact that in 85% of the European hospitals nurses were involved in the formulation of the guidelines while dermatologists were involved in 22% and specialists in internal medicine in 23% of cases. The 89 hospitals that conducted an audit study reported in 1993 that 81% used a risk-score list to assess the risk an individual patient has to acquire pressure sores. A total of 38 hospitals managed to perform two measurements in time and the fast majority was able to demonstrate an improvement in the incidence of bedsores (more detailed results of this study are provided in KLAZINGA N.S., GIEBING H., 1994 AND KLAZINGA N.S. 1994).

6.5.11 General pharmaceutics policy

Although most of the pharmaceutical attention of priority teams goes to the use of antibiotics (see also 5.5.3) and anticoagulants (6.5.2), general pharmaceutics policies were also suggested 19 times as a topic for medical audit. Analysis of the reports of priority meetings and relevant peer-review studies shows the following:

'WHY' — Problems related to pharmaceutics are a mixture of concerns on medical effectiveness and logistics. In the sideline economic notions play a role in debates about rational drug use.

'WHAT' — Many times the formulary is brought forward as the main instrument in the hospital to rationalise drug use. In hospitals drug committees are dealing with this phenomenon (see 5.5.4). The following specific problems related to the use of medication were mentioned during the meetings: the use of sleeping medication (3 times), the use of medication as treatment of bedsores, standardisation of laxantia use, systemic use of corticosteroids, medication for patients with limited kidney function (2 times) and what to do if patients are allergic for medication. In all these cases the indication for drug use was the main issue.

'HOW' — Several organisational problems were brought forward as the potential focus of an audit study:

'WHO' — Distribution and administering of drugs was considered a problem (4 times) because of the authorisation discussion about the limited responsibility of nurses to administer drugs intravenously.

One time specialists complained about the changes made in their medication orders by the pharmacologist. They stated that although these changes were based on the formulary, consultation is necessary. The reverse was true during another meeting where the pharmacologist suggested to study the use of the escape clause in the formu-

lary; in his opinion a growing number of specialists was using this possibility without proper argumentation.

'WHEN' — Several times the distribution procedures of drugs were the main focus of the discussion, trying to prevent that patients get the wrong drugs or drugs are administered at the wrong moment.

'INFORMATION' — Problems were presented about verbal (2 times) and written drugs ordering. It was suggested to make an inventory of faults made because of errors in ordering or unreadable orders. The retrieval of information about drug use of a patient when the patient is admitted to the hospital was nominated as a topic once. The systematic use of generic names (instead of commercial names used by industries), and the distribution of *locos* instead of *specialités* were also considered as a topic for peer review.

In general, both rationalisation of drug use (medical effectiveness) and the logistics of the ordering, distributing and administering of drugs are areas of interest when one studies general drug policy.

The formulary as an instrument to manage rational drug use can also be identified as a source of potential problems between pharmacist and specialists because behind the seemingly rational discussion about the selection of drugs lies the debate on the professional control over drug prescribing.

6.5.12 Problems associated with the radiology department

Like the pharmacy and the laboratory, the radiology department is a supportive service to the work of most clinical specialties. The problems encountered in the interface of medical specialist care and radiological services (mentioned 19 times) are similar in their managerial nature as the ones described in the paragraphs on double testing and general drug use.

'WHY' — The reasons to nominate a topic on radiology services as a priority for peer review are related to medical effectiveness (predictive value of radiological examinations), logistics and economics. The economic reasons have to do with cost containment and the feeling that efficient use of the radiology department would result in cost reductions. As explained for the laboratory, these possibilities for cost-reduction as a result of rational and efficient use of the radiology department are easily exaggerated. Efficient use of the department as seen from the perspective of a specialist, may have an impact when it influences the overall production of the radiology department in such a way that less personnel is needed. In practice, however, the necessity to have radiological facilities available 24 hours a day and prior investments in technology make that a decrease in production will only result in savings at a certain break even point (when one can do with less personnel). Most of the time production decrease will have no major cost effects and, contrary to the head of the laboratory who gets a salary, will

result in less income for the radiologist who is most of the time paid by health insurers on a fee for service base. Thus the organisational structure of the radiological department and its financing may work as an obstacle against rationalisation of the use of the department from the perspective of the hospital organisation.

Apart from effectiveness, efficiency and economic reasons, side-effects of radiology like radiation load were expressed two times as a reason to audit the use of the radiology department.

'WHAT' — Apart from a general notion to rationalise the use of radiology examinations, the indications of the following tests were debated more than once:

- routine X-thorax when a patient is admitted; apart from the rationale behind a routine X-thorax as part of preoperative assessment, (see 6.5.1) the rationale behind the X-thorax in other situations was questioned 8 times;
- indication for a CT scan was mentioned 8 times; both cerebral CTs and the use of a CT scan for the diagnoses of HNP (hernia nuclei pulposi);
- the use of a routine X-ray of the skull for emergency patients was nominated 4 times (not included in the total counting of this cluster). This issue was mentioned for the last time in 1986 and the practice of a routine X-skull has not been brought forward since;
- another test, mentioned twice, is the radiological examination of the colon. Proper preparation of the patient prevents that the pictures taken are difficult to interpret.

'HOW' — Logistical problems of the interaction of the radiology department with specialists as mentioned during the priority meetings were the following:

'WHO' — An interpretation of radiological examinations by radiologists is appreciated, but during night duties difficult to obtain. As a consequence sometimes judgements are made by the attending physicians that need to be reconsidered afterwards.

'WHEN' — Radiological examinations are scheduled for in-patients at the most busy moments for nursing staff, so problems with patient transportation arise.

'INFORMATION' — The following information-related problems were brought forward:

- request for radiological examinations are not clear (or readable) and clinical information on the patient is lacking (4 times);
- patients are not informed about radiological examinations properly;
- X-rays and results get lost c.q. are not accessible when needed (3 times);
- better information would prevent double testing (2 times).

'FEEDBACK' — Several of the problems mentioned are an illustration of the need for communication between clinicians and the radiologist. Improvement of the judgement of the radiologist relies on feedback on the clinical situation of the patient, and a correct use by the clinician of test results asks for the expertise of the radiologist.

Improvement of the content and timing of the information flow, either verbal or written, constitutes the major challenge for quality management in this area.

6.5.13 *Intensive care unit* (ICU)

From a managerial perspective the ICU of a hospital has many similarities with the emergency department. Patients need the attendance of different specialists and the level of activities is, compared with most clinical wards, technical and, as stated in the term ICU, intensive.

The functioning of the ICU unit was mentioned 18 times (in 13 hospitals) as a priority for peer review.

'WHY' — Improvement of the medical effectiveness of intensive care was the main reason to suggest the topic, especially improvement that could be achieved through better communication and co-ordination between the different specialties involved in ICU activities. There are also arguments of efficiency to suggest ICU as an audit topic: nation-wide there is a (perceived) shortage of ICU beds and therefore admission policies and an efficient use of the ICU were mentioned 6 times as the main concern. Problems related to the ICU capacity have been a public issue frequently over the past ten years, especially when patients were refused because lack of space. The ethical committee of the Royal Dutch Medical Association has published a paper in 1989 on the ethical aspects of patient selection for intensive care treatment (KNMG 1989).

The main focus during the priority meetings, however, was on organisational improvements.

'WHAT' — Although the term 'ICU' is well known, the types of specialist care that are covered by this term, though interrelated, vary from hospital to hospital. Intensive Care Medicine relates to the following different organisational entities: recovery room, high-care unit, medium-care unit, intensive care unit level 1 and level 2, coronary care unit, neonatal care unit and paediatric intensive care unit. In a report of a working group of the Scientific Council of CBO (CBO, 1993) the following classification of organisational units that provide intensive care medicine is suggested: Intensive Care level 1, Intensive Care level 2 and High Care. This classification follows the guidelines of the Society of Critical Care Medicine, and is to a large extent complementary to the classification of the Dutch Association for Intensive Care Medicine and a report a the Dutch National Health Council. All three proposed levels differ in complexity of care provision and technological facilities.

During the priority meetings the 'functional profile' of the ICU was posed as the main problem four times; especially the exact function of a medium-care unit was questioned. An inventory performed in one of the hospitals showed that the requests of specialists who wanted to realise a unit called 'medium care' were so different that it

was concluded to be impossible to realise a medium-care unit with a homogeneous 'functional profile'.

Apart from the function and the capacity of the ICU some more specific problems were raised in relation to the type of medical activities performed:

- drip policy (arterial and venous infusions) in the ICU (complications, two times);
- length of treatment in the ICU.

'HOW' — The problem mentioned most often (10 times) as the major cause of malfunctioning of the ICU was lack of co-ordination among medical specialists and between specialists and nursing staff.

'WHO' — Since the development of intensive care medicine in the 1950s different specialties have been involved: anaesthesiology, internal medicine, cardiology, neurology and pulmonology, among others. Only recently the phenomenon of an 'intensivist' has been introduced. This is not a separate specialty, but different specialties, like the anaesthesiologists, try to establish an additional qualification. This qualification can be acquired by specialists from different disciplines after an additional training (see also STOUTENBEEK 1996).

In the CBO report hospitals are advised to appoint one specialist as the head of the ICU. This recommendation seems to follow a practice that is at present introduced in an increasing number of hospitals that had to deal with co-ordination problems. Only an explicit assignment of ultimate responsibility for specialist care delivered at the ICU can assure effective co-ordination. Although the qualification intensivist is not required as yet to become head of an ICU, this will in future probably become a prerequisite.

'WHERE' — Apart from the question which patients should be admitted to what kind of ICU (level 1, 2, and high care) several hospitals are facing the problem that they start with a situation of several medium-care facilities (usually similar to the high-care profile in the CBO report) linked to different specialties. Combining these different units seems effective and efficient but can create tremendous resistance within the organisation. There is general consensus that the coronary care unit and intensive care for children should be organised separately.

'INFORMATION' — Proposals have been done to classify patients at the ICU (with the APACHE II score: Acute Physiology And Chronic Health Evaluation) on severity of the illness, and classification of nursing staff workload with the TISS (Therapeutic Intervention Scoring System). Both classification systems are used to monitor progress of the patients and constitute an information source for quality management.

These coding systems are, however, not systematically used as yet. At one priority meeting elementary record-keeping was mentioned as the major problem of co-ordination.

'FEEDBACK' — Assignment of explicit responsibilities for the co-ordination of specialist care at the ICU and regular structured communication (the CBO report suggest

daily multidisciplinary team meetings with keeping of minutes) are seen as the main roads to improve the quality of care within ICUs with an explicit profile.

Feedback to the family of patients was mentioned two times as an issue that needed more attention.

From the perspective of organisational development it seems that the ICU is developing itself in a series of more-defined organisational units with circumscript tasks, functions and responsibilities of personnel. Although both the organisational function and the specialisation are still developing, management of the ICU will be a separate task in future. It seems advisable to include management skills in the training programmes that are at present developed for intensivists.

6.5.14 Urgent laboratory testing (STAT, 'CITO')

Although the term 'CITO' (from Latin *cito,* 'fast') was initially used for pharmacological prescriptions, it has become synonymous in Dutch hospitals with urgent laboratory testing. The English equivalent is STAT (from Latin *statim,* 'immediately'). The topic was nominated 17 times during the 101 priority meetings. The topic was also studied by a working group of the Scientific Council of CBO that published a report on CITO-laboratory testing in 1985 (CBO, 1985).

'WHY' — Organisational efficiency seems the main reason to mention CITO testing as a topic for medical audit, although cost elements also play a role at the background. CITO testing is a good illustration of the interaction between the laboratory (as a supportive service) and specialist care i.e. the decision-making process of the clinician. As a result of time pressure, CITO testing is at the core of efficient interaction of information gathering and decision-making and making trade-offs between the predictive value of test results and timely information for effective decisions.
During six priority meetings the way specialists use the rush-ordering procedure was questioned. Provision of laboratory services on short notice is expensive (additional personnel is needed and planning is difficult), thus rationalisation of CITO use will contribute to efficiency and may perhaps result in faster testing results.

'WHAT' — a clear definition of CITO and listing of indications was asked for during several meetings. In the 1985 CBO report, CITO is described as 'immediate blood sampling and testing providing results as soon as possible but always within one hour'. CITO orders should only be written in acute situations when quick decision-making about diagnoses or treatment is asked for. Only for a limited number of laboratory tests, results on such a short notice can be obtained (examples are Hb, thrombocytes, leukocytes, blood gases, calcium, potassium, PTT or TT, glucose, amylase, urea and creatinin). The report makes a distinction between the urgency of the blood sampling and the urgency of the laboratory testing; in some cases only direct blood sampling is necessary

but test results can be provided at a later moment; for a CITO order both the sampling and the testing should be done as soon as possible.

During two of the priority meetings the formulation of a definition on CITO for the hospital was presented as the main concern. During eight meetings indications for CITO testing were considered the main problem; the impression was that too many tests were performed unnecessarily on a CITO basis, and a protocol was asked for. One priority team suggested to evaluate the protocol that already existed and wanted to examine the reasons why specialists did not keep to the protocol. During two meetings a concrete test was suggested as the subject of a peer review study: day-curves of glucose in the blood.

'HOW' — Different organisational problems were mentioned as part of the CITO practice.

'WHO' — In one hospital it was questioned whether giving nurses the authority to order CITO tests was correct.

'WHEN' — Another hospital wanted to adjust the blood sampling time schedule of the laboratory with the visiting hours of the specialist to the wards (the existing situation resulting in a lot of CITO testing because the daily sampling round was done before the specialists saw patients and started to order additional tests). Twice the time between CITO ordering and getting the results was considered too long for urgent decision-making needed at the emergency room (EHBO) and the ICU.

One team prioritised CITO practice during the weekend, another team selected CITO testing during normal working hours.

'INFORMATION' — Suggestions for new ordering forms were made with possibilities for differentiation between CITO and 'sub-CITO' (twice), together with improvement of the ordering procedure.

Effective and efficient management of CITO practices in hospitals asks for clear agreement on the meaning of CITO and the indications for which it should be used. If not, CITO practice has the tendency to become a circular process in which increased waiting times result in more liberal CITO ordering by clinicians which result in increased waiting times. CITO practice has major organisational and cost consequences for the laboratory. It does not seem fair to leave the management and budget responsibility solely on the shoulders of the head of the laboratory. Costs associated with CITO testing could also partly be deducted, in relation to the volume used, from the budget of different clinical units. Although this was never suggested during the priority meetings, some hospitals started to experiment with financing mechanisms that are complementary to the management of test-ordering. These experiments are part of broader initiatives to achieve a better integration of the working processes at the laboratory and the clinical wards. In several cases this integration is sought through structural changes in the hospital organisation in which parts of the laboratory are an integral part of newly formed clinical divisions (see also chapter 8).

6.5.15 *Urinary-tract catheterisation* (UTC)

Urinary-tract catheterisation is an invasive activity that needs monitoring, as is reflected in its selection as a topic for peer review during the priority meetings. About 80% of all urinary-tract infections during hospital stay are related to catheterisation (WARREN, 1983). This is not only caused by the insertion of the catheter. Catheters are often given to elderly people in the hospital for too long a period. A working group of CBO's Medical Scientific Council advised to limit the use and length of use of UT catheters in hospitals (CBO, 1988).

'WHY' — UT catheterisation was nominated 17 times as a priority. In all cases arguments of medical effectiveness were brought forward as the main reason to study this topic: right indications and limitation of complications. During several discussions there was also an argument involved on operational efficiency: the workload of nursing and medical staff was considered to go down if patients were given a catheter. Economic reasons were not expressed, although the use of (bladder) catheters was one of the main topics of the attempts of the National Hospital Institute to introduce utilisation review as a method in Dutch hospitals during the eighties (NZI, TAM REPORT 1984). By reducing the number of different catheters used by different specialties to a limited set, cost reductions could be achieved.

'WHAT' — The formulation of a protocol with the indications for UT catheterisation was considered the main objective during 6 meetings. Sometimes the use of specific parts of the UT catheterisation policy where questioned such as:

- the use of decreasing the pH of urine to prevent infection;
- the use of prophylactic antibiotics;
- the use of flushing of the bladder;
- the use of additional vitamin C;
- the use of a routine culture after removal of the catheter (2 times).

Apart from a protocol for indications and assignment of responsibilities for deciding about appropriate indications, a protocol with instructions on the procedure of UT catheterisation and follow-up was considered useful. Two hospitals already had such instructions and wanted to evaluate practice. Two other hospitals wanted to evaluate only the outcome by monitoring the percentage of cystitis after UT catheterisation.

'HOW' — In the discussions about this topic during the priority meetings two logistical problems were posed: who is allowed to insert a catheter and how should it be done. The necessity was stressed to have catheters inserted by either nurses or interns who are skilled in doing so.

Changes related to UT catheterisation seem mainly dependent on the willingness of medical and nursing staff to adhere to protocols that rationalise both the indication and the practice of UTC, sometimes in contrast to the efficiency of their working patterns.

6.5.16 *Intra-venous and intra-arterial infusion policies*

'WHY' — The managerial problems related to drip policy bear large similarities with the problems described in relation to UT catheterisation. Both are invasive acts with associated benefits and risks. Medical effectiveness was the main reason why drip policy was mentioned during 17 priority meetings. At 10 meetings the complications of different types of intra-venous and intra-arterial catheters were presented as the main problem. Like with UT catheterisation there seems to be a relation with organisational efficiency; by leaving a patient with a 'wake needle' after infusion has stopped, an entry to the venous system remains available (efficient for administering drugs because in this way no time is wasted with a new vena puncture) but the longer it exists the greater the changes on complications (like phlebitis).

'WHAT' — The following specific points related to drip policy were raised:

- formulation of a protocol on post-operative intra-venous infusion policy (two times);
- indications for intra-venous infusion at the ICU;
- length of stay of catheters;
- aseptic handling when inserting intra-venous and arterial catheters;
- complications of intra-venous catheters (8 times);
- complications of subclavian and jugularis catheters (2 times);
- infection control (culture) when a 'catheter *à demeure*' for 24 hours is used.

'HOW' — Like with UT catheterisation the skills of the person inserting the catheter were the main organisational concern. At one meeting the skills of new interns for inserting subclavian catheters were questioned and suggestions were made to improve training.

6.5.17 *Prevention, treatment and follow-up of patients with breast cancer*

Policies related to the prevention, treatment and follow-up of breast-cancer treatment were mentioned 16 times during the 101 priority meetings. As a specific disease breast cancer is therewith prioritised most often.

'WHY' — Improvement of medical effectiveness seems to be the main argument for nominating this topic. At one meeting rationalisation of the follow-up was asked for, especially reduction of unnecessary testing, as a contribution to cost containment. During another meeting the waiting time between testing and results was considered the main topic, thus putting patient satisfaction (getting a quick answer when the suspicion of breast cancer has arisen) as the central quality issue.

'WHAT' — The following aspects of the breast cancer policy were emphasised:

- correct diagnosis (3 times), in one case the role of cytological punctions before explorative operation was mentioned;

- correct follow-up (7 times); standardisation of follow-up procedures was asked for, but the discussions illustrated also that a lot of questions exist about an effective follow-up strategy.

How often should follow-up mammograms be made and who would be able to judge them correctly?

'HOW' — During three discussions the communication between the surgeon, the radiologist and the general practitioner was considered the main problem. General practitioners ask for mammograms judged by the radiologist, but questions arose about delay in transfer to the hospital when the mammogram was positive and about the right follow-up procedure when the mammogram was negative. Participants of the priority meetings asked for better procedural arrangements between the three parties.

In 1983 the respective scientific associations in collaboration with CBO held a consensus conference on mammography policy and in 1988 a meeting on the quality aspects of a national screening programme for breast cancer. This screening programme (witch promotes regionalised centres for standardised assessment of mammograms) is since then implemented.

Although national policies become more clear, local problems in hospitals still seem to be present and constitute a topic for peer review. When the local peer-review studies also include an evaluation of the results of therapy they tend to become small research projects.

6.5.18 Diabetes care

Mentioned 14 times, diabetes patients are the second group of patients prioritised rather high on the list of topics mentioned during the 101 priority meetings of medical specialists in 51 hospitals.

'WHY' — a correct treatment of diabetes seems to be the main concern for nominating the topic. Especially the introduction of new treatment modalities and co-ordination of the policies in the hospital seem important.

'WHAT' — Apart from an expressed need to standardise treatment and follow-up of diabetes patients in general, the following specific points were raised:

- angiography testing (2 times);
- treatment and prevention of ulcera;
- use of antibiotics in diabetic ulcera;
- policy for treating diabetes type II (2 times);
- registration of complications;
- standardising (and limiting) the use of different kinds of insulin (2 times);
- improvement of patient education;
- effectiveness of follow-up (3 times);

- predictive value of day curves of blood glucose compares with HbA1C testing (2 times).

'HOW' — Apart from the need for protocols on the treatment and follow-up of diabetes patients the following organisational points were mentioned:

- Who should take care of diabetes patients that undergo surgery, when should a specialist in internal medicine be consulted?
- Exploration of the possibilities to start a separate polyclinic for diabetes patients (3 times).

Similar to patient with breast cancer, national programs seem to emerge for diabetes patients. CBO held consensus conferences on the diabetic foot in 1985, diabetic retinopathy in 1992 and nutrition advice for diabetics in 1992. Further on the patient organisation of diabetes patients has taken a lot of initiatives to improve the education and treatment of diabetes patients. Setting up separate outpatient services for diabetes patients (like regionalised breast-cancer screening and mammogram facilities) and introducing specific diabetes nurses illustrate the further differentiation of care delivery when a sufficient volume of care exists to make a separate organisational structure worthwhile both from the perspective of medical effectiveness and organisational efficiency.

6.5.19 Parenteral feeding

'WHY' — Parenteral feeding is a variation on the managerial problems described with infusion therapy and bladder catheterisation. A major difference is that the involvement of the laboratory in parenteral feeding is more intensive, especially in relation to the laboratory tests that are performed to monitor the effect of the parenteral feeding. Medical effectiveness is the main concern (do the right patients get the right parenteral feeding during a period they really need it). Organisational (work load laboratory) and economic (costs of test ingredients) factors also seem to play a role in the nomination of this topic for medical audit. In several hospitals the growing number of patients that received parenteral feeding was seen as a trigger to nominate this topic as a priority for audit.

'WHAT' — The formulation of indications for parenteral feeding was considered the main topic during 4 meetings, together with the need for a protocol about the procedure. Other specific elements mentioned were:

- composition of the 'parenteral nutrition';
- necessary monitoring with regular laboratory tests;
- complications (similar to the ones described in the paragraph on infusion policy);
- differentiation between long time and short time parenteral feeding and parenteral feeding for children.

'HOW' — Co-ordination between nursing staff, clinical specialists and laboratory was asked for. In one hospital the way of administering parental feeding was considered a problem.

6.5.20 Pain management

Pain as a symptom does not belong to a specific specialty and thus can be point of interest of many different parties in the hospital. Pain management was nominated as a priority 11 times.

'WHY' — The main reason seemed to be medical effectiveness, both through treatment with drugs and anaesthesiological techniques. Organisational and economic notions were implicit; overuse of drugs for pain management and the positioning of the anaesthesiologist as an expert on pain management.

'WHAT' — Different problems related to pain management in the hospital were mentioned:

- treatment of pain in cancer patients in accordance with protocols;
- rationalisation of drug use for pain control at the wards;
- adequate routing for the administering of drugs for pain control (oral versus different types of injections);
- post-operative pain control policies (3 times);
- pain management in children;
- complications of epidural pain control in women in labour;
- use and complications of epidural catheters outside the OR;
- post-punction headache after spinal anaesthesia (in relation to epidural anaesthesia which is not given because it takes more time and thus meets objections from the side of surgeons).

'HOW' — The responsibilities for pain management are not always clear. In one hospital the specialist in oncological pain control was not consulted when problems occurred, in another hospital the anaesthesiologist was responsible for pain management until 24 hours after the operation and a vacuum occurred afterwards. In another hospital untimely consultation of the pain team in patient with chronic pain problems was mentioned although the functioning of the pain team was also a matter of debate.

Between 1991 and 1996 CBO has been involved in a project on quality assurance in anaesthesiological pain management, executed together with the section on pain management of the Dutch Association on Anaesthesiology. An inventory held in 1991 among all departments and partnerships of anaesthesiologists showed that (CBO, N.T. VAN DASSELAAR 1992):

- anaesthesiological pain-control activities were performed by 97% of the respondents (response to the questionnaire was 98% (144 of 147);

- 38 policlinics (outpatient services) for anaesthesiological pain management were reported to exist longer than four years and 27 existed longer than 10 years;
- 36% of the respondents participate in a local multidisciplinary pain team; however, more than half is dissatisfied with the functioning of the pain team;
- in the previous year anaesthesiologists performed approximately 63,000 interventions related to the management of patients with benign chronic pain;
- 65% of the respondents reported to provide ad hoc or systematic consultations on the use of analgesics in the home situation for oncology patients (mainly epidural catheters).

It seems that anaesthesiologists are rapidly expanding their activities in the field of pain management. Standardisation and proper evaluation of new techniques seems relevant (and is one of the main focuses of the mentioned CBO project). Plans exist to develop a special postgraduate training programme in pain management for anaesthesiologists that would result in formalised additional qualifications (similar to the developments in intensive-care medicine, see 6.5.13).

Although the role of the anaesthesiologist towards pain management is expanding, many problems remain in the pain-management area, specifically in relation to medication use. Additional policies to improve the quality of pain management seem to be necessary on national level (HAMSTRA L., KLAZINGA N.S., 1994). The material from the priority meetings shows that apart from proper evaluation of new techniques better co-operation between different specialties and nursing staff for different categories of patients and a more rational medication policy, are asked for.

6.6 ANALYSIS OF THE MANAGERIAL CHARACTERISTICS OF THE 1084 TOPICS THAT WERE MENTIONED DURING 101 PRIORITY MEETINGS

Apart from a content analysis of the reports of the 101 priority meetings, focusing on the distribution and nature of the topics that were prioritised, an additional analysis was performed on the managerial characteristics of the 1084 topics by coding them in such a way that the following questions could be answered:

- Is the topic related to the structure, process or outcome of specialist care?
- Are costs involved in the phrasing of the topic?
- What is the essence of the problem as formulated by the specialists themselves; is it mainly a knowledge problem or an organisational problem?
- Is the problem related to the development of a policy (i.e. protocol development), the execution of a policy (evaluation) or both?
- Who are involved in the topic/problem?

- Where in the hospital is the problem located (i.e. policlinic, ICU wards, laboratory etc.)?

Different items used for coding the 1084 topics will be described in the successive paragraphs where the questions are answered. The categories used for the coding were developed in accordance with the theories described in earlier chapter and is consistent with the framework for analysis described in chapter 2. The coding categories seem to capture managerial dimensions that appeared relevant after working with the material. This personal coding procedure is for several of the items subjective; consistency and validation of the coding process was enhanced by discussing the coded material with several other persons (i.e. colleagues at CBO) knowledgeable with priority meetings and the topics brought forward. The results of this third analysis should therefore be interpreted as complementary to the quantitative frequency analysis (6.4) and the qualitative descriptive analysis (6.5) presented in the previous paragraphs.

6.6.1 *Are the topics related to structure, process or outcome of medical specialist care?*

Since Donabedian structure, process and outcome are used as a framework for analysis for quality assurance. For the nominated topics it proved less useful as a framework for analysis, because, as could be expected, the majority of the problems as perceived by the specialists are related to the process of specialist care and only rarely structure and outcome problems are nominated as a topic for peer review. Out of 1084 only 5 (0.5%) were directly related to the structure (for example the evaluation of the need to start a medium care unit), and 39 (4%) to the outcome (for example complication evaluation, autopsy meetings and average length of stay in the hospital). The remaining 1040 are all related to the process of specialist care. Of course the concepts of structure, process and outcome can be successfully applied to the topics considering them as a process that is part of the overall process of specialist care. The concept is useful for analysing specific topics but too simple a structure to serve as a meaningful classification for all different problems of specialist care brought forward during priority meetings.

6.6.2 *To what extent are cost notions involved in the choice of topics?*

Quality of specialist care is characterised by medical effectiveness, patient satisfaction and efficiency. Efficiency can be looked upon as organisational efficiency and in relation to costs.

During the period that the 101 priority meetings were held, cost containment in hospitals has constantly been an important issue. Therefore it is interesting to see

whether cost arguments are used to nominate a topic for peer review. As a specific structure for utilisation review of medical specialist care is lacking in most hospitals it could be expected that part of the problems nominated for peer review find their ratio in the wish to rationalise the use of resources.

52 times out of 1084 (5%), the cost element was mentioned explicitly as the main reason to audit a specific topic. In 210 cases (19%) it was mentioned implicitly as an argument by using words as 'efficiency' and 'rational use of resources'. The implicit mentioning of cost arguments seems to have slightly increased since 1983 (the year budgeting of hospitals was introduced), the explicit mentioning of cost remains the same over the 15 year period.

6.6.3 *Are the nominated problems related to knowledge or organisation?*

Quality management of specialist care is related to both medical knowledge, medical organisation and their interaction. It is therefore interesting to see to what extent problems, nominated at a priority meeting are presented as a knowledge problem or as an organisational problem. A problem is considered a knowledge problem when it is phrased in terms like 'we need to make a new treatment protocol because a lot of new results have been published recently in literature'. It is considered an organisational problem when it is phrased like 'we need to reconsider our working methods because waiting times are too long'. For the analysis the following scoring categories to explore this dimensions were used:

- Kn: a topic where appropriate use of medical knowledge is posed as the central problem;
- CCs: a topic where proper communication between medical specialists is considered the main problem;
- CCo: a topic where proper communication between specialists and other personnel in the hospital is considered the main problem;
- In: a topic where the structuring of information (for example record-keeping) is presented as the main problem;
- ORs: a topic where organisational problems within one specialty or between specialties are the main focus;
- ORh: a topic where organisational problems on the hospital level are considered to be the main problem;
- Pat: a topic directly related to the doctor-patient interaction.

The number of topics where the phrasing of the problem mainly concentrates on the proper use of medical knowledge (Kn) is 48%. The total number of topics related to organisational problems (CCs, CCo, In, ORs, ORh) is 47%. The remaining 5% are problems directly related to the doctor-patient interaction.

Further analysis of the 47% of organisational problems shows that it is composed of communication problems between specialists (11%), communication problems with allied health professionals and nursing personnel (8%), information problems (7%), organisational problems on the specialist level (6%) and organisational problems on the hospital level (15%).

The analysis shows that knowledge problems seem to be equal important as organisational problems. This finding has important consequences for the instruments and strategies used for problem solving. When the problems are perceived by the medical specialists as a knowledge problem, educational strategies, in accordance with adult-learning theory, seem to be the most effective strategy for introducing change. Or, in line with management theory, a control system can only be developed properly when the criteria are (commonly) set. It demonstrates that quality management of medical specialists care asks for educational approaches as well as strategies based on organisational change.

6.6.4 *Are the nominated topics related to policy-making or to the execution of predetermined policies?*

Although the term 'audit' usually refers to assessing if practice is in accordance to preset criteria, in practice many peer review committees spend a lot of time trying to formulate policies on areas that are selected as a problem during priority meetings. The notion that policies have to be developed before actual audit can take place is also expressed many times during the priority meetings. For a lot of topics mentioned the main concern is that policies (guidelines, protocols, agreements) are developed and audit is only considered as an activity to be performed in future. To evaluate whether the topics nominated, referred to policy-making or to policy endorsement an attempt was made to code all 1084 topics as follows:

- P: In the phrasing of the problem only the need to develop a policy (agreement, guideline, protocol) is expressed;
- E: In the phrasing only the evaluation of an already existing policy is expressed;
- B: In the phrasing of a problem both the development and the evaluation of a policy are mentioned.

In the total of 1084 topics 387 times (36%) the problem was phrased as a policy development item only; 317 times (29%) the evaluation of an already existing policy was the central issue; 380 times (35%) both policy-making and policy evaluation where covered by the formulation used in the reports on the priority meetings.

This analysis shows that policy development is considered as important as the actual evaluation of practice. For problem solving, techniques to develop policies (make protocols, guidelines or criteria) are as important as techniques to evaluate care.

6.6.5 *Who are involved in the topics nominated during the priority meetings?*

Priority teams usually consist of different medical specialists representing the medical staff of the hospital. Only in two hospitals nurses were involved in the priority meetings. This team selection focuses the problem selection on topics that are relevant for specialist care. The fact that medical specialists from different specialties are represented, facilitates the nomination of topics in which more than one specialty is involved. Furthermore, several problems brought forward during the 101 meetings cannot be solved among specialists alone; they require the co-operation of nursing staff, hospital management and/or other parties involved in hospital care.

To analyse to what extent the topics nominated by specialists relate to non-specialists, all 1084 topics were coded using the following categories:

- problem related to one specialty;
- problem related to more specialties;
- problem related to both medical and nursing staff;
- problem related to specialists and other persons inside the hospital (for example hospital management or allied health professionals) or outside the hospital (for example general practitioners).

The analysis shows that only 10 topics (1%) were mono-specialty. 756 topics (70%) were multi-specialty, as could be expected given the goal of the priority meeting and the composition of the priority team. A total of 201 topics (19%) involved nurses and 118 topics (11%) involved other persons. Thus the solving of 30% of the problems nominated as priorities needs the active co-operation of other persons than are represented in the priority team and in the infrastructure for peer review. This also has consequences for the applicability of priority meetings (see 6.7.5) and the functioning of peer-review committees in general, especially in relation to CQI and TQM activities performed from a hospital-wide perspective (chapter 8).

6.6.6 *Where are problems located?*

Another way of analysing the topics nominated during the priority meetings is looking at the location where the problem exist. All topics where assigned codes corresponding with one ore more of the following locations in the hospital:

- policlinic: 195 times;
- emergency department (EHBO): 70 times;
- day care/day surgery: 9 times;
- wards and or no specific location: 810 times;
- pharmacy: 32 times;
- radiology department: 113 times;

- laboratory: 98 times;
- other specific examination departments: 21 times;
- operation room: 140 times;
- intensive care unit: 46 times;
- outside the hospital: 43 times;
- pathology department: 8 times.

The majority of topics is located in the wards, or not linked to any specific location in the hospital. The distribution over the other locations is consistent with the choice of topics such as triage at the emergency department, functioning of the ICU and problems in the interaction with the radiology department.

6.7 DISCUSSION

In this chapter empirical material on quality management of medical specialist care has been analysed and in different paragraphs comments have been made on the features of the nature and development of quality management as it is reflected in the material. In this closing paragraph reflections on the material will be presented from the different theoretical perspectives that were discussed in earlier chapters. At the end some reflections will be presented on the applicability of priority meetings within medical staffs as a method to select topics for peer review studies.

6.7.1 Reflections from the perspective of quality theory

In chapter 1 the following definition was chosen for quality: 'Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs'. The characteristics that seem to be most prominently represented in the empirical material presented in this chapter are medical effectiveness and organisational efficiency. In the terminology of the aspects of the quality of professional performance as formulated in the report of the National Public Health Council (NRV, 1986) the material seems to relate to the quality of the technical performance (effectiveness, expertise, indication, appropriateness, safety and meticulousness) and the quality of the organisation of care delivery (continuity, availability, efficiency, integrated care). The dimension 'quality of the attitude of the specialist' seems less dominant, although represented in some topics through concerns on willingness to provide information to patients and co-operation. Issues related to attitudes are brought forward in the discussions during priority meetings but in general the peer-review committee is not perceived as the forum that should tackle these issues, especially when personal attitude of specific specialists seems to be involved.

Most topics seem to be a mixture of 'knowledge problems' and 'organisational problems' and especially the transitions from medical knowledge towards personal performance and from personal performance towards group performance is the focus of attention.

The way 'medical effectiveness' is operationalised comes close to the classical definition on quality provided by Donabedian:

> *"Its expected ability to achieve the highest possible net benefit according to the valuations of individuals and society."*
> (DONABEDIAN, 1968)

This definition puts the balance between health benefits and harm, while avoiding unnecessary care, at the core of the concept. The trade-off between risks towards individual patients can be recognised explicitly in the discussions on topics like preoperative assessment, anticoagulant use and blood transfusion policy. The discussion on avoiding unnecessary care is evident in topics like useless double testing, preoperative assessment, STAT testing and, in ethical terms, in discussions on resuscitation policy. Illustrations of the need to establish a balance between risks on an individual and on a social level are provided by the discussions on anti biotic policy (concerns about the future effectiveness of antibiotics as a consequence of multiple resistance) and infection control (prevention of nosocomial infections). The quality of the organisation of professional performance is mainly reflected in discussions on mutual responsibilities and communication among specialists and between specialists and other health-care workers in the hospital organisation. Improvement of the mutual working patterns and streamlining of the primary process seems to be the core issues in: consultation of colleagues, record-keeping, triage at the emergency department, interaction with the radiology department, the pharmacy and the laboratory. Professional and organisational perspectives dominate the way quality is operationalised through the priority meetings and the peer review studies. However, a certain sensitivity for the patient perspective can be noticed, as for instance expressed in the discussions on preoperative assessment (do patients accept more outpatients visits, i.e. to the anaesthesiologist, when this decreases the risk of postponement of their operation once they are admitted), record-keeping (privacy), resuscitation policy (patient opinion), information for patients and policies for diabetes patients and patients with breast cancer. Sensitivity for the need for cost containment is clearly noticeable. However, the topics also demonstrate that improvement of operational efficiency does not necessary result in cost containment given the external financing mechanisms that are used for specialists and hospitals as well as the financing mechanisms inside the hospital (e.g. preoperative assessment, consultation of colleagues).

6.7.2 *Reflections from the perspective of professionalisation theory*

In chapter 3 and 4 the theory of professionalisation has been brought forward as an important explanatory framework for the nature and development of mechanisms for quality management of medical specialist care. It has been argued that the work of specialists in hospitals should be considered as the institutionalisation of medical expertise and quality management and notably peer review as instruments for self-regulation. This self-evaluation is, however, the result of an agreement between the 'profession' and the 'state', although both the concepts 'profession' and 'state' need to be differentiated into their various manifestations (e.g. medical association, scientific society, medical staff, partnerships, government, financiers, inspectorate of health, local authorities) to understand the underlying dynamics. To quote Johnson:

> *"Freidson seemed to be recognizing a postwar reality by accepting that the state increasingly held the professions in an intimate socio-economic embrace while, at the same time, providing the professions with a theoretical underpinning for their claim of independence: the autonomy of technical evaluation."*
> (JOHNSON 1995, P. 10)

It is thus not surprising that in the arena of self-regulation as represented by the priority meetings and peer review committees, manifestations of professionalisation can be recognised. At least three types of expressions of professionalisation processes can be identified.

The first type consists of the *development of new specialties.* In the material four new professions seem to emerge: the intensivist (discussions on intensive care units, 6.5.13), the specialist in emergency medicine (discussions on the functioning of emergency departments, 6.5.9), the anaesthesiologists with expertise in pain management (discussions on pain management, 6.5.20) and the transfusionist (discussions on blood transfusion, 6.5.5). Although the dynamics surrounding these four phenomena are different, they seem to have some elements in common. In all four cases the domain of attention is characterised by new technological developments and a growing complexity of the decision-making processes and associated management processes. In the intensive care unit new and complex technologies for life-support systems have been introduced and practice has shown that central responsibility for the decision-making at the units is needed. Similar developments can be recognised at the emergency departments, especially in the field of traumatology. Pain management has over the years become more important, also because of the epidemiological shift from acute diseases to chronic diseases whilst a series of new anaesthesiological techniques is introduced that promise relief from pain. With these new techniques such as epidural catheterisation and specific nerve blocks, the anaesthesiologist wants to 'upgrade' its position from a mere supportive specialty to surgery towards an independent clinical expert with its own

therapeutic arsenal and separate outpatient consultation offices. For blood transfusion the growing array of blood products, their respective indications, the complexity of associated blood-testing procedures and the growing national concern on the safety of the use of blood products, has fuelled the debate on the need for transfusionists. Another common characteristic of these four specialties-to-be is that they seem to follow the traditional path of professionalisation through scientific conferences, the formation of interest groups that grow into societies and discussions on the possibilities to set up separate training modules. Although these debates are primarily located at the national level, usually within the framework of already existing scientific societies, they are locally reflected in some of the debates surrounding priority meetings and peer review activities. For all four groups the main hurdle at present seems to be to obtain sufficient acceptance from colleagues who belong to the already recognised specialties. Especially when a new specialty overlaps with the domain of different existing specialties the maturation process evolves with a lot of interprofessional tensions e.g. intensivists versus pulmonologists and specialists in internal medicine, specialists in emergency medicine versus surgeons and orthopaedic surgeons and anaesthesiological pain experts versus neurologists, neurosurgeons and various other disciplines including clinical psychologists. All four groups seem to seek external support from patients, hospital management and government to underscore their claim.

A second manifestation of professionalisation can be recognised in the many topics that have the *assignment of professional responsibilities* as a central theme. This is evident for the topic 'consultation of colleagues' but also in topics such as preoperative assessment and antibiotics policy the (re)negotiation of professional domains of specialties is at stake. Especially when different specialties have to share the same information and risk assessments should be combined to reach an optimal process of decision-making towards the patients, the need for inter-specialty commitment and collaboration arises. The need for professional collaboration seems especially true for the interaction of clinical specialists and specialists in a more supportive role. Here the latter is for his working procedures dependent on the decision-making processes of the former. This has already been explained for the anaesthesiologists towards the surgeon, for example for their mutual and common responsibility for preoperative assessment and prophylactic antibiotic administering. It seems even more true for specialists and heads of support services whose institutionalised expertise is used on request of the clinical specialist e.g. the pathologist, the micro biologists, the radiologist, the pharmacist and the clinical chemist. It is not surprising that in the arenas of self-regulation, constituted by priority meetings and peer-review committees, the work of these 'dependent specialties' is reflected in the topic choice. Topics such as useless double testing, general pharmaceutical policy, antibiotics policy, blood-transfusion policy, problems with the radiology department, obduction, parenteral feeding and infection control have in common that they relate to organisational issues on the

interface between the clinical decision-making process that steers the primary process of patient care and the supportive services and departments. Personal observations that 'dependent specialists' are well represented in peer review committees and many other medical staff committees and are often the driving force behind the activities supports the hypotheses that these activities are inherent to the professionalisation of these 'dependent specialties'. For them to function in the hospital organisation a good working relation with the 'independent' clinical specialists is mandatory and in addition their participation in staff activities seems to confirm or even enlarge their status as medical specialist.

Assignment of responsibilities is not restricted to 'turf battles' and 'gentlemen's agreements' between specialties, the relation of specialists to other health professionals, notably nurses, is also reflected in the material discussed in this chapter. Topics as the prevention of bedsores and UTC are good examples of audit topics that enhance the formalisation of the responsibilities of specialists and nurses.

A third manifestation of professionalisation can be recognised in the discussions when the *limits of professional autonomy* are brought forward through referring to government regulation. Although, as explained in chapter 3, the influencing of clinical practice by government regulation is rather limited and 'deregulation and self-regulation' are central notions in health policy since 1987, several remarks were made during the priority meetings that show the existence of the boundaries between state and profession. One example is the present discussion on the Law on Blood transfusion Practice, making blood ordering by prescription mandatory. Another illustration is the debate on information for patients and record-keeping where reference is made to various laws that protect the position of the patient such as the WGBO. Many illustrations can be found of moments that legal arguments were brought forward by specialists, often in relation to liability issues, disciplinary law and associated practices of defensive medicine. This can especially be noticed in discussions on preoperative assessment, record-keeping and information of patients.

From the perspective of professionalisation theory the quality-management activities associated with priority meetings and peer review committees can also be characterised as interprofessional self-regulation between specialties through regulation and codification of labour division as well as the regulation and evaluation of mutual working processes – especially between 'dependent' and 'independent' specialties. Input for these processes comes from inside the profession (new knowledge, new technology and working methods) as well as from outside the profession.

6.7.3 *Reflections from the perspective of management and organisation theory*

In organisation literature a hospital is often characterised as a professional bureaucracy (E.G. MINTZBERG 1983). This implies that for its co-ordination the organisation relies on the standardisation of skills and its associated design parameter, i.e. training and indoctrination. Specialists run the operating core and have considerable control over their own work. Standards in a professional bureaucracy originate largely outside its own structure, in the self-governing associations its operators join with their colleagues from the same profession. Instead of hierarchical authority there is the power of expertise. To understand the functioning of a hospital in its operating core, i.e. the primary process of patients care, it can be considered as a repertoire of more or less standardised programs that call on the skills of the professional and are applied to predetermined situations (contingencies). The basic tasks of the professionals are to categorise the patients (diagnosis) and to execute the respective standard programme (treatment). Co-ordination and re-assessment of the respective contingencies is a tedious process of interprofessional planning and control. In one of the previous paragraphs the managerial characteristics of the empirical material of the priority meetings has already been analysed. The managerial profile that appears seems consistent with the descriptions in literature about the co-ordination and standardisation of working processes among professionals in professional bureaucracies. The following specific elements can be noticed:

- Many of the problems selected for peer review reflect the *existing fallacies of the classical hospital structure*; separate clinical wards and outpatients departments organised by specialty, separate support services, independent clinical specialists who through their decisions steer the primary process but seldom have overall managerial responsibilities for the care processes. Especially the lack of structural integration of clinical departments and support services and departments is reflected in the selected topics for peer review: standardisation of working processes between clinical departments and the pharmacy, various laboratories, radiology department and the pathology department.
- Many of the selected problems demonstrate the *informal process of assignment of responsibilities and labour division between specialists*. Lack of a hierarchical system through which tasks and responsibilities are assigned is replaced by an professional forum where interprofessional understanding is sought and reached. The creation of a new specialty may be the outcome of this process (i.e. intensivist, emergency medicine, transfusionist).
- *To standardise the various contingencies in which patients are grouped, similar rationalisation strategies seem to be used for different clinical situations.* Instruments used to categorise patients all seem to have the character of a risk score, e.g. the ASA score

for preoperative assessment, the risk score for the prevention of bedsores, the APACHE score at the ICU, the trauma score at the Emergency Department and the do-not-resuscitate score for resuscitation policy. The instruments are developed to differentiate patients by risk and successive planned actions are linked to the results of the scoring. Part of the discussions in hospitals concentrate on the validity of these instruments in the local hospital situation and the integration of the use of these instruments in the existing working patterns.

- Apart from standardisation of the input, many peer-review topics focus on the *standardisation of the process*. For this purpose various protocols are developed and some of them are of a restrictive nature (for example the formulary for drug use) although adherence to the majority is rather reached through peer pressure than formal coercion. In addition separate 'instruments' can be identified that are aimed at regulating the process, e.g. A standardised blood-order form for blood transfusion, standard forms for the ordering and logistics of preoperative assessment, special forms for anticoagulant use monitoring and forms for consultations by colleagues.
- *Control of the progress of the care process* and integration of the contribution from various specialties and support services lie at the core of topics like record-keeping, double testing, CITO policies and consultations by colleagues. Standardisation of the mutual communication, both oral and written, seems to be the preferable solution strategy.
- *Control of the (intermediate) outcome* is also operationalised in several topics such as drip policy (percentage of phlebitis), urinary-tract catheterisation (percentage urinary tract infections in patients that get a catheter), cross-transfusion ratio and adverse transfusion reactions in blood transfusion policy, percentage of successful resuscitations in resuscitation policy, incidence of bedsores in prevention of bedsores, results of autopsies in obductions and specific nosocomial infection percentages in infection control. These (intermediate) outcome measures are often considered as a means to control the care process. Although they have great merit, for almost all of the parameters standardisation of the measurement causes problems. Another drawback of their use is that the relation with specific components of the care process is often not clear so their informative value for corrective action is limited. During the past years interest in these (intermediate) outcome parameters seems to be growing but apart from the questions about there reliability and validity, experience with peer-review studies shows that their managerial capacities as steering information are limited and the use of the information should be embedded in the proper managerial context. If these parameters are to be used as management information, the information should primarily be in the hands of the operators of the care process on a decentral level and not part of an emerging

'technostructure' with functionaries that try in vain to control the work of specialists.

From an organisational and managerial perspective the empirical material underlines the functioning of a professional bureaucracy as initially described by Mintzberg. Priority meetings and peer review committees can be identified as forums where professionals co-ordinate and regulate parts of the working processes in the hospital that are characterised by mutual dependency of professionals. The regulatory activities can be described in terms of the planning and control of care processes through standardisation of contingencies, standardisation of care processes and standardisation of the control function of both process and outcome. Instruments used for these standardisation processes are the result of a merger of medical scientific and managerial rationalisations. Although quality management endeavours, as expressed in priority meetings and peer review studies, resemble the general characteristics of bureaucratisation, they seem well embedded in the domain of professional autonomy and self-regulation.

6.7.4 *Reflections from the perspective of innovation theory*

To quote Donabedian:

> *"It is quite legitimate to consider the monitoring of performance (peer review) to be a technology or a complex of technologies, some organisational and others more material in nature."*
> (DONABEDIAN 1991 P. 64).

Based on this assumption, the development of quality management of medical specialist care can be considered from the perspective of innovation theory as described in chapter 2. The dynamics of topic selection and the successive attempts to perform peer-review studies as manifested in Dutch hospitals during the past fifteen years seem to reflect the six characteristics of innovation recognised by Blauw c.s. (1988; see also chapter 2: 2.5.1).

- Inherent to the peer review methodology a (perceived) performance gap lies behind the choice of topics for peer review. This seems especially true for topics where unwanted outcomes exist (e.g. infections, complications, waist of resources) but also in topics like record-keeping, resuscitation policy and preoperative assessment where a discrepancy is perceived between an optimal and the present situation.
- Many quality-management activities are characterised by the fact that they aim to introduce new activities or working methods (e.g. new routines, change in distribution of responsibilities)
- The peer review activities can be characterised as problem-solving processes in which decision-making and use of information are strongly intertwined. The intertwining with creativity is less obvious from the aggregated priority meeting re-

ports but is surely present when looking in detail at local problem-solving strategies as part of the peer review process.

- The activities described are related to organisational change – i.e. the changing position of the medical specialists in the hospital organisation as a consequence of internal and external developments (see chapter 5).
- The quality-management activities build on the diffusion of ideas within the social system of the medical staff. Examples of the diffusion of such ideas are for example the opinions on the predictive value of preoperative tests, use of antibiotics and anti coagulants and the use of specific blood products.
- For the different topics separate phases can be identified that each have their specific problems as demonstrated by the diffusion of innovations on preoperative assessment. First acceptance is needed about the reasons for preoperative assessment, than follows a phase where the 'what' questions play a dominant role and successively specialists start to debate the 'how' question. Similar phases (acceptance, creation of a supportive infrastructure, agreement on criteria, instrumentalisation, implementation) were identified in the execution of audit studies as part of the concerted action programme on quality assurance in hospitals (KLAZINGA 1994).

Compared with the characteristics of innovations identified by Rogers (see 2.5.2) most topics selected during the priority meetings seem to be perceived by at least part of the stake holders as an improvement when implemented and are to a large extent compatible with values and experiences of specialists. Whether they are perceived as needed is another matter: problem selection is not the same as problem solving. Although many specialists will agree with attempts to rationalise the use of for example preoperative tests, antibiotics, anti coagulants and blood products they are less lenient when this implies that they have to change old working patterns and/or limit their professional freedom. Thus the advantages of the improvement will be weighted against the general consequences in terms of professional clinical freedom and financial interests. These interprofessional barriers are evident in topics as preoperative assessment (position of anaesthesiologists), ICU (which specialty will be in control), but holds also true for all topics where the 'independent' clinical specialist (i.e. surgeon, paediatrician) has to make working arrangements with the 'dependent' specialties' (i.e. radiologist, pathologist). Complexity of a topic may sometimes hinder the diffusion (e.g. anticoagulant use). Triability and observability seem to be favourable conditions for the diffusion of a topic; e.g. topics as bedsores policy and infection control can attribute part of their popularity to the fact that efforts to improve the situation are (to a certain extent) measurable and thus observable. Measures that demonstrate within a short time frame a reduction of complications (e.g. infusion policy) seem to be better adhered to than for example antibiotics policies that result in advantages only noticeable after a longer period of time (less drug resistance). For the

diffusion is seems mandatory that the innovation, as for example described in a new protocol, goes through the tedious channels of decision-making in the medical staff and communication among specialists. As this decision-making structure is inherent to the professional bureaucracy the implementation of change goes through the channels of convincing of peers, interprofessional negotiation, and social influencing. Given the nature of the medical staff as a social system, the role of change agents and opinion leaders is extremely important for the implementation of change. Personal experience with the execution and follow-up of peer-review studies shows that at least one specialist is needed who is enthusiastic enough to press the issue in combination with sufficient support of peers with an influential position in the medical staff. When either the change agent or the opinion leader is lacking, attempts to introduce changes in the working methods of specialists as part of peer review are bound to fail. Needless to say that the general strategy applied is one of convincing instead of coercion although for many a topic external pressure is used as an argument to mobilise enthusiasm. A simple formula for the diffusion of innovations in the setting of a medical staff by means of priority meetings and peer review cannot be given. It seems, however, dependent of the interaction of four dimensions: the nature of the topic selected, the peer review methodology applied, the internal conditions of the medical staff (homogeneity, staff culture, change agents and opinion leaders) and the context outside the medical staff both inside and outside the hospital. Interrelation of these four dimensions explains in many situation the effectiveness with which topics chosen for peer review result in actual improvements in the quality of care.

6.7.5 *Reflections on the applicability of the priority meeting method in medical staffs in Dutch hospitals to select topics for peer review*

Experience since 1977 with the method of priority meetings does not give rise to questions about its reliability and validity. The method in itself is an elegant way to make a group of professionals identify and prioritise topics they consider relevant for peer review. Applied on the level of the medical staff the method has, however, its limitations. As can be concluded from the selected topics, the composition of the members of the priority team (representatives from the medical staff) and the framing of the task (to identify topics relevant to be studied by the peer review committee of the medical staff) result in a series of themes that are mainly restricted to general inter-specialist hospital problems. The consistency of topic choice over the years demonstrates that the scope tends to stay limited to problems in a specific series of domains. It seems also evident that the conclusion drawn from the analysis on management characteristics, that solving of 30% of the problems nominated as priorities needs the active co-operation of other persons than are represented in the priority team and infrastructure of peer review, should give rise to reflection. Four tendencies should be noted.

Firstly, *the professional infrastructure of the medical staff, representing all specialists, is not congruent with the managerial structure of the different organisational units that are the focus of the identified topics.* From the perspective of (industrial) quality improvement theory the selection of topics for quality management should be set up within the organisational structure where responsibilities and managerial possibilities for solving the identified problems are located. In general, hospitals operational responsibilities are on the one hand located in departments and support services and on the other hand in the partnerships in which the specialties have organised themselves.

Secondly, *professional tendencies as the strengthening of the position of the partnerships compared to the medical staff* (scientific societies versus the specialist association) *combined with organisational tendencies of management participation of specialists on decentral operational level and the introduction of divisions with a stronger integration of primary clinical care functions and supportive functions, seem to undermine the relevance of priority meetings on medical staff level.* Many initiatives related to 'quality systems' and 'total quality management' take care processes with all actors involved at the operational level as the starting point for topic selection and improvement actions (see also chapter 8).

Thirdly, an additional undermining of the priority meeting can be found in the *transformation of the traditional peer review committee into a quality committee of the medical staff.* Although this transformation, a result of national professional policy forces (see chapter 4) can also turn to the better by broadening the scope from traditional audit approaches towards a wider array of quality development methods, there is also the

danger that energy that is now put in peer-review studies will dissolve into more abstract discussions about the integration of the quality policy of medical staff and hospital management.

Fourthly, as demonstrated in the empirical material several of the *identified topics for peer review have over the years found their specific institutionalisation* in separate committees such as the blood transfusion committee, the records committee, the intensive care committee, the drug committee, the bedsores committee, the infection control committee, the resuscitation committee, and the emergency department committee. It seems often more practical to designate the task for peer review on these specific topics to the respective committees. Obviously these topics do not represent one-time problems but are focusing on areas of clinical care that merit continuous attention.

Whether the four mentioned tendencies will in the long run fade out the existence of priority meetings remains to be seen. The method in itself is still elegant and applicable; however, it seems advisable to reconsider the composition of the priority teams and the organisational embedding to improve the effectiveness as a first step in PDCA cycles embedded in an organisation-wide quality system.

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Chapter 7
Practice guidelines, review criteria and quality management of specialist care
An analysis of the nature and development of 33 practice guidelines developed through consensus conferences between 1982 and 1992

"To the physician particularly a scientific discipline is an incalculable gift which leavens his whole life, giving exactness to habits of thought and tempering the mind with that judicious faculty of distrust which can alone, amid the uncertainties of practice, make him wise unto salvation. For perdition inevitably awaits the mind of the practitioner [...] *who has never grasped clearly the relations of science to his art, and who knows nothing, and perhaps cares less, for the limitations of either."*

Sir William Osler, 1884
as cited by Lomas in Andersen and Mooney, 1990:174

7.1 INTRODUCTION

Practice guidelines and review criteria are essential tools for quality management. As has been explained in the previous chapters, the essence of quality management of medical specialist care lies in the setting of goals, the planning of the decision-making process and the actions that result from it and the controlling of practice and its results through systematic evaluation. Guidelines are a concrete operationalisation of the 'planning of practice' and review criteria are yardsticks necessary for the 'controlling'. The contents of guidelines and review criteria should reach further than individual opinions of specialists. They should encompass scientific knowledge and expert opinion as well as managerial notions and broader social concerns.

After a general introduction on the different methods that exist for the development of practice guidelines and review criteria, this chapter will focus on the Consensus Development Programme, that has been executed by the Medical Scientific Council of CBO since 1982. The aim of this programme is to develop practice guidelines that can be used for the formulation of review criteria for peer review activities in Dutch hospitals. The programme was initiated to meet the demands of peer-review committees in hospitals for guidance on scientifically controversial topics.

The first part of this chapter will explore the underlying axioms and terminology (7.2) and the various motives for guideline development (7.3). Then the general methodology of Consensus Development Conferences (CDCs) will be described (7.4) and the specific characteristics of the programme organised by CBO will be highlighted (7.5). General reflections will be presented on the effectiveness of the present methodology (7.6). Based on the framework of analysis presented in chapter 2, the 'managerial profile' of a total of 33 sets of consensus guidelines, developed with support of CBO between 1982 and 1992, will be assessed (7.7, 7.8). It will be explored whether the content of the guidelines provides actual guidance to the management of the quality of care as delivered by medical specialists. A separate paragraph will discuss the link between practice guidelines and review criteria (7.9). In the last part of this chapter an analysis will be presented on the impact of the CBO/CDC Programme and its link with the formulation of review criteria in the context of the functioning of peer-review committees in Dutch hospitals. The impact will be assessed from the perspective of professionalisation theory (7.10) and innovation-diffusion theory (7.11). In the final paragraph conclusions will be drawn (7.12).

7.2 PRACTICE GUIDELINES AND REVIEW CRITERIA: AXIOMS AND TERMINOLOGY

A series of axioms relates practice guidelines to quality management:

- Ideally evaluation is inherent to management. Criteria are inherent to evaluation. Hence, criteria are inherent to management.
- Medical practice is based on medical knowledge. Ideally medical knowledge is based on science. Science is the production of statements on 'truth' based on a systematic process of research and inference following the Descartian tradition.
- The definition of quality as discussed in chapter 1 subsumes the formulation of criteria as an implicit notion.

As a consequence of these three statements quality management of specialist care implies the formulation of practice guidelines and review criteria that have their roots in scientific knowledge. Various dimensions of criteria and methods to derive them have been described over time. The well-known 'structure, process, outcome ap-

proach' of Donabedian (1980) is still one of the cornerstones of each attempt to provide a practical framework for criteria development and the RUMBA rule provides good guidance: Criteria should be *r*elevant, *u*nderstandable, *m*easurable, formulated in *b*ehavioural terms, and acceptable.

Many definitions on criteria are confusing, especially when the word 'criteria' is contrasted with terms such as 'standards' and 'protocols'. The terminology becomes even more confusing when one reads the literature in French (*Recommendations et références médicales*, ANDEM 1995) or in German (*Standarde, Leitlinien*, Deutsche Akademie für Wissenschaften, 1995). In all European cultures and languages the words 'guideline' and 'criterium' have an ambiguous meaning. On the one hand they are associated with bringing order in chaos (providing guidance) and on the other hand they are associated with the restriction of freedom. In health care, the rising popularity of practice guidelines among practitioners, managers, patients, insurers and politicians is accompanied by the same ambiguity. On the one hand the development of practice guidelines is seen as an attempt to reduce uncertainty in medical practice and provide means to assure the effectiveness, efficiency and patient orientation of care delivery, on the other hand it is perceived as an attempt to reduce professional and management autonomy and create mechanisms for accountability (KLAZINGA, 1995).

In this chapter the term 'criterion' should be read as 'review criterion', formulated at the local level of medical specialists working in a hospital, and used as a yardstick in evaluative activities as part of quality management. The term 'practice guideline' refers to the products of the consensus development conferences that have been organised by CBO since 1982.

With this use of the terms 'practice guidelines' and 'criteria' the definitions as given by the United States Institute of Medicine (IOM) in 1990 seem appropriate:

> "*Practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances.*"
> "*Medical review criteria are systematically developed statements that can be used to assess the appropriateness of specific health care decisions, services and outcomes.*"
> (FIELD AND LOHR, 1992:2)

According to an IOM report issued in 1992, practice guidelines focus, in first instance, on assisting patients and practitioners in making decisions, but this defining characteristic does not and should not preclude their use for other purposes including quality improvement and reimbursement policy making. Conversely, medical review criteria and related tools emphasise the evaluation of health-care decisions, actions and outcomes, but they should and do build on guidelines and may in some cases be virtually identical (FIELD AND LOHR 1992:2).

Thus practice guidelines need to be 'translated' into review criteria if they are to be used for evaluative purposes. The methodological problems associated with this 'translation process' are discussed recently in two reports issued by the USA Agency for Health-care policy and Research (AHCPR 1995A, 1995B) and in an article by Baker and Fraser (1995).

Naturally consensus guidelines are not the only source for the formulation of review criteria in hospitals, and numerous sets of criteria have been developed in other ways over the years by specialists as part of the CBO peer-review programme. The fact, however, that the CBO consensus programme was originally set up with the purpose to support the formulation and use of review criteria in hospitals, and the fact that the methodology is more or less standardised and the products are accessible, were decisive in taking these national consensus guidelines as the focus of analysis in this chapter, exploring their nature and development as well as their impact on the quality of medical specialist care.

7.3 REASONS FOR GUIDELINE DEVELOPMENT[16]

Practice guidelines have become very popular. Following the USA and Canada a growing number of European countries seems to have caught 'guideline mania'. The method of consensus conferences, initiated by the National Institutes of Health in the seventies, was initially the leading methodological example, and was followed by The Netherlands (CBO and NHG), the UK (King's Fund), Sweden (SDU) Denmark and France (ANDEM). Over the past seven years other methodological approaches towards systematic guideline development have appeared such as those of the American College of Physicians and the Agency for Health-care policy and Research. These initiatives have also caught European attention notably in the UK and France.

Attempts to describe desired medical practice in terms of firm statements are as old as medicine itself (i.e. Eber papyrus, rules of Hippocrates, aphorisms of Osler). The term 'practice guideline' is at present considered as a potentially useful instrument for curing many of today's problems in health care. There seems to have been a shift in systematic guideline development approaches from the realm of Technology Assessment (OTA, NIH) towards the acknowledgement that guideline development is an integral part of quality improvement activities of professional organisations (DECLARATION EUROPEAN FORUM MEDICAL ASSOCIATIONS AND WHO, 1993). With this shift, motives for guideline development became to overlap to a large extent with motives for quality management of medical specialist care in general.

[16] *This paragraph is based on a previously published review article: Klazinga N.S. (1994) Compliance with practice guidelines: clinical autonomy revisited. Health Policy vol. 28 pp. 51-66.*

Behind the different efforts to develop practice guidelines three clusters of motives can be identified that can be labelled as 'professionalisation', 'accountability towards society' and 'management development' (AUDET ET AL. 1990, BROOK 1989, GARNICK ET AL. 1991, FARMER 1993, CHASSIN 1990, CLINTON 1991, FLETCHER ET AL. 1990, LINTON ET AL. 1990, ORKIN 1989, WOOLF 1990, BRAMA 1990, BALL 1990).

Professionalisation

Professionalisation may be the most dominant motive for health-care professions to develop practice guidelines. As scientific knowledge is considered the basis of medical practice, practice guidelines rooted in medical science can be considered a logical consequence of professionalism. They help to maintain the characteristics that determine that practising medicine is a profession. Practice guidelines seem to fulfil for professionals, within the realm of their profession, complementary functions: they support the movement towards evidence-based medicine (COCHRANE 1972, EDDY 1982, 1990), they help to keep up with complex and fast scientific development and they provide an interface between science and practice i.e. between efficacy and effectiveness. In areas where scientific knowledge is insufficient to legitimise medical practice, guidelines also offer the opportunity to synthetize 'expert opinion' and describe the 'state of the art'; thus guidelines are not only a bridge between science and practice but also are supposed to provide an alternative route when science is lacking. Traditional articles in medical journals provide too little guidance for medical practice as they tend to focus mainly on the presentation of research results in terms of probabilities (GREER 1988, WILLIAMSON ET AL. 1989) and practice guidelines are supposed to be a remedy. Practice guidelines serve as an instrument made for and by professionals that helps to reduce the uncertainty of decision-making in medical practice. They constitute an evidence-based decision-support technique for a rationalised practice (BERG, 1995). The development of practice guidelines can thus be considered as an act of professionalisation that strengthens the scientific rationale of medical behaviour. As a consequence it also strengthens the professional autonomy and enforces the boundaries of the professional domain.

Accountability

The second cluster of motives can be grouped around the word 'accountability', introduced by Relman (1988) as the third revolution in medicine. Doubts on the effectiveness of medical care (MCKEOWN 1976), practice variations (WENNBERG 1980, ANDERSEN AND MOONEY 1990), discussions on appropriateness (BROOK AND LOHR 1985, SIU ET AL. 1986, LEAPE 1989) side effects of medicalisation (ZOLA 1972, ILLICH 1975), emancipation of the patient, and rising tension between what care consumers expect and what medicine can offer (MIRVIS 1993), has led to the recognition that trust in the medical profession cannot be

taken for granted. As with all other parts of society, the medical profession should be held accountable for their activities. Practice guidelines are considered as one of the mechanisms to enhance accountability; they make desired medical practice more explicit and thus transparent to other parties such as management, financiers, government and patients. This transparency is asked for and is considered the more important in health-care systems that try to incorporate market elements. Potentially practice guidelines provide consumers with an instrument for monitoring whether the trust they place in the medical profession is justified, but also an opportunity to discuss the 'fitness for use' of the medical service and to enter patients' values and norms in the medical decision-making process. In certain policy settings practice guidelines are even considered as an instrument to make 'choices in health care' (REERINK, KLAZINGA, 1991) or to plan future health-care needs (RIVM/VIV, 1996). Thus practice guidelines are concrete instruments for the profession to meet the expectations on accountability.

Management development

The third cluster of motives is focused around the phenomenon of management development in health care. Given the economic constraints of health-care systems, those responsible for a budget (managers, financiers, government), either local, regional or national, are looking for instruments that can help them to justify the use of personnel and means. As practice guidelines make medical practice hopefully transparent and should be based on scientific knowledge, they are perceived as a sensible instrument for enhancing efficiency. Although the explicit meaning of the word 'efficiency' usually remains vague, thus not taking into account the difference between economic and medical efficiency and the interlinks of goals, costs and financing mechanisms in the health-care system, the general feeling is that guidelines will help to control costs (KLAZINGA, CASPARIE, ROOZE, 1995). This efficiency argument should not be underestimated, it seems to be at the core of several national guideline development programmes in the USA and (on health authority level) in the UK.

Professionalisation, accountability and management development are all legitimate motives to formulate practice guidelines. Nevertheless they are different, and a guideline development programme does not automatically address all three goals simultaneously. It is necessary to be more explicit about the reasons why different actors in the health-care system want practice guidelines to be formulated, in order to assess their impact. The question 'do guidelines guide practice?' should always be followed by the question 'who wants to know and why?' (LOMAS ET AL. 1989, SMITH 1991).

Assumptions and distinctions

In 1992 a working group of the Institute of Medicine in the USA has reviewed the experience with practice guidelines in that country. They formulated a central hypothesis that appears to lie behind the present endeavour:

> *"Scientific evidence and clinical judgement can be systematically combined to produce clinically valid, operational recommendations for appropriate care that can and will be used to persuade clinicians, patients and others to change their practices in ways that lead to better health outcomes and lower health-care costs."*
> (FIELD AND LOHR 1992)

Behind this hypothesis the working group identified at least six assumptions:

- Firstly, it is assumed that their is sufficient scientific proof to justify a substantial part of medical behaviour.
- Secondly, the volume of systematic guideline programmes can be such that it really covers a substantial part of medical practice.
- Thirdly, a sufficient number of clinicians are enticed to read, understand, accept and use the guidelines.
- Fourthly, the resulting change in behaviour is substantial enough to realise change in health outcome.
- Fifthly, all guidelines together result in cost containment.
- Sixthly, there is enough flexibility in the development programmes to adjust them to new developments. (FIELD AND LOHR, 1992 P. 4)

The total of these assumptions is impressive and illustrates the difficulty in answering the simple question whether guidelines work. A similar vision about the complexity and perhaps unrealistic positivist expectations of guidelines is formulated by Brook:

> *"Medicine is largely practised from memory, in chaotic systems without built-in safeguards. Illegible notes – 'doctor's orders' – form the basis of communication between physicians and nurses and between physicians and pharmacists. Yet we are continuously amazed when the quality is mediocre and when the implementation of clinical guidelines does not substantially alter doctors' behaviour."*
> (BROOK, 1995)

At this moment the question whether guidelines are effective cannot be answered satisfactorily. What can be done, however, is to summarise the bits and pieces of evidence that emerge from the guideline development programmes executed during the last ten years. This evidence is at best supportive to several notions underlying the present methodology and implementation procedures but is usually only relevant for a specific guideline developed for a specific purpose in a specific context with a specific methodology and implementation strategy. Useful distinctions when

evaluating the present body of existing practice guidelines are (KLAZINGA, KAASENBROOD, 1992):

- whether the guideline is primarily aiming at educating practitioners or mainly focusing on process control (relative dominance of the concepts effectiveness or efficiency);
- whether the guideline is formulated on a national, regional or local level (distant versus proximal influences);
- whether the guideline will be used as part of internal quality assurance activities or of external quality control activities (instrument for self-support versus instrument for external evaluation);
- whether the guideline is focusing on action or selection (dominance of the question how a certain technique can be better applied versus the debate whether this technique should be applied at all, given other options and cost constraints).

This last distinction is especially worthwhile because it shifts the guideline debate from the realm of science and professional judgements to the realm of social values and thus should have consequences for the methodology and background of parties involved.

It also seems evident that the different goals underlying the rationalisation process called guideline development can conflict. If guidelines have to fulfil all the expectations included in the overall hypothesis of the IOM, it assumes agreement within a society on the ultimate goals of health care on an individual and a collective level and rational behaviour by all parties and individuals involved in health care towards the common objectives. The experience with debates on 'critical choices in health care', for example the Oregon debate in the USA and the discussions on the Dunning report in The Netherlands, show that this agreement is desirable but extremely difficult to reach. The rationalisation processes underlying guideline development, however, assume that this agreement can be reached. Therefore the process of guideline development can be used as an activity to establish common directions in medicine. This function is perhaps as important as the question whether through guidelines the desired direction is actually reached. The strategy component (where to go) may in the long run turn out to be at least equally important as the tactics component (how to get there). Thus guidelines are also an instrument for policy making, thriving on the notions of professionalisation, accountability and management development.

Gottlieb states that the reasons for developing guidelines not only originate from medical concerns such as practice variation, and clinical uncertainty, controversy and new technologies, but also from management concerns related to resource allocation and patient perspectives (GOTTLIEB 1990). These two dimensions 'what to do' and 'how to do it', can be recognised in almost every set of clinical guidelines (KLAZINGA, KAASENBROOD 1992). This distinction in a scientific and a managerial rationale also dictates one of the prerequisites for a proper practice guideline: the guideline should be formulated in

terms of behaviour. It should be possible to read a guideline as the translation of medical (scientific) knowledge into behavioural rules for medical practice.

The broadening of guideline development from the scientific and professional realm towards the domains of management and health policy has consequences. Apart from the medical profession, managers, financiers, government and patients show their interest in guideline development. Sometimes the goals of these 'external parties' becomes dominant and change the overall goal of practice guideline development (i.e. *références médicales* in France). The social context is then a main part of the discussion instead of just the external framework that is taken for granted. When this happens the guideline is not merely the translation of scientific knowledge in practice behaviour, but also the formalisation of certain social concerns. The goal-shifting process of practice guideline development can also be recognised in the CBO/CDC programme. This can be illustrated by a discussion in The Netherlands about their legal status ('juridicalisation') (ROSCAM ABBING, 1991, VAN WIJMEN 1992, KISTEMAKER 1995) similar to discussions in the USA (FIELD 1993, BRENNAN 1993, HIRSHFELD 1993). An other illustration forms their potential use for decisions about insurance coverage or for 'critical choices' in health care (REERINK, KLAZINGA 1992). Again similar to debates in the USA (TINGLEY 1993) and France (ANDEM, 1995). It also seems evident that this shift in focus has consequences for the potential of guidelines to be used as a basis for the formulation of review criteria. The more a guideline includes 'external goals' the more the review criteria derived from it will be perceived by practitioners as an exponent of external control. The extent to which this shift in focus has appeared in the CBO consensus development programme will be discussed later on in this chapter. The following paragraph will explore the different methodologies that are at present used for practice guideline development.

7.4 METHODOLOGIES FOR THE DEVELOPMENT OF PRACTICE GUIDELINES

Although guideline programs differ in scope and location, some similarities in the methodologies can be identified on the level of the input, process, and output of the different programmes (JACOBY 1985, WOOLF 1991A, B, C, MCGLYNN ET AL. 1990, THOMAS 1993).

The input of each guideline development process consists of a mixture of scientific evidence, professional opinions, practice experience, patient concerns, social concerns and notions on costs. In all methodologies the scientific evidence and professional opinion play the most important role and the extent to which arguments from the other domains become relevant in the guideline development programme differs between and within programmes. In all programmes rationalisation of arguments that will be taken into account is a dominant characteristic.

- Scientific evidence should be presented with the help of literature reviews, literature syntheses and results of meta-analyses (JENICEK 1989, SACKS ET AL. 1987).
- Professional opinions should be based on expertise recognised in the academic and professional world.
- Practice experience is brought into the discussion based on surveys and investigation rather than individual experience.
- Arguments expressing concerns of patients and/or society at large should carry a certain legitimacy, either expressed by the status of the person who vocalises the argument or the backing with ethical and/or legal theory.
- Cost concerns are preferably expressed in the form of the results of cost-benefit analysis and cost-effectiveness analysis, thus appearing in quantitative terms and matching the expectations of a scientific forum discussion.

The similarities between the model of consensus conferences and the judicial system are not accidental: guideline development like decision-making in court is based on the weighing of evidence and there are rules on what evidence is permitted (LOMAS, 1993).

Most processes of guideline development, and especially the programs based on consensus conferences and expert panels, have in common that they are centred around a group process where, through a rational debate common opinions are expressed in a written document (VEATCH ET AL. 1991, PERRY ET AL. 1992, JOHNSON ET AL. 1991). The programmes differ in the extent to which the groups are composed, the group processes are standardised, the debate is structured and the writing is standardised. More recently advocates of 'evidence-based medicine' promote guideline development programmes where group judgements are excluded from the development process (SACKETT AND ROSENBERG, 1995). They rely on texts on effective medicine derived from systematic analysis of the research evidence in literature, through international collaborative efforts ('Cochrane collaboration').

For understanding the format of the group process it is relevant to ask who is the owner of the programme. It seems evident, given the different reasons underlying guideline development programmes, that programmes initiated and paid for by government and/or health insurers (ANDEM, AHCPR) have a different image from the start than programmes that are founded in research institutes (King's Fund, SDU, DRI/DHI) or by the profession itself (ACP, CBO, NHG).

The initiator, the financier and the actual organiser are all actors with their own motives and these motives will be reflected in the nature and possibly the effect of the programmes.

Group processes are structured differently. Some programmes use only one group: the experts meet, discuss and write the guidelines. However, most programmes use the expert opinion solely as the input for a broader discussion among an interested, but more neutral, audience. The original consensus model of the NIH is using a jury model

where a carefully selected jury judges the evidence of the experts and writes the final guideline text. This model has been copied by the King's Fund in the UK and for many consensus conferences in France. The guideline programme of the Dutch general practitioners is based on a different approach: the draft guideline, as developed by the experts, is sent for a critical review to a large group of practising general practitioners. In the CBO model for consensus conferences the actual debate on the expert opinions takes place during a one-day conference without the use of a jury but with the whole audience participating in a discussion that will result in the final practice guideline.

In all programmes attempts are made to get formal commitment of different professional groups to the guideline development process (CASPARIE 1991). Experts are official representatives of their respective scientific societies and conferences are organised by, or in collaboration with organised groups of professionals. This official commitment, obtained at the very start of the programme, is thought to be a prerequisite for future acceptance of the guideline in the medical community.

Although the group discussions take place along the lines of rational scientific debates, less rational group dynamics can be identified as in any group process. The person of the chairman is reported to be very important (VAN EVERDINGEN 1988): the chairman should be knowledgeable on the topic but not belonging to a specific interest group and have the capacities to manage complex social group processes.

Ideally in the group discussions the different problems/questions are identified and analysed, an inventory of arguments pro and contra is made, value judgements on the different arguments are made explicit together with the group criteria for the weighting of value judgements and conclusions are drawn. This ideal is hard to be attained in practice; however, specific rationalisation and discussion techniques may be helpful in keeping the expert group on track. The consensus conference organised with the support of ANDEM and CBO usually have a fixed list of questions that have to be answered by the experts, as the backbone of the discussion and reporting. Sometimes nominal group techniques and techniques from the area of medical decision-making are used to make implicit opinions explicit in a more quantitative way, thus making the decision-making process in the expert group more transparent (KLAZINGA ET AL. 1987).

The output of the guideline development process is a written document. Ideally all statements in this document are formulated in behavioural terms and phrased in unambiguous language: conclusions can be linked to the argumentation and value judgements and an implementation strategy is added. In reality the quality of practice guidelines differs when measured against these criteria.

Some of the guidelines, and consensus programmes are labelled as Technology Assessment (TA) some other present themselves as activities in the field of Quality Assurance (QA). This label seems more a reflection of the semantic roots of the organising bodies than an expression of an essential difference. Technology Assessment and Quality Assurance are complementary fields and the formulation of guidelines on good

practice is and activity that takes place in the domain where the two fields overlap (KLAZINGA 1990). Simply stated, guidelines are the outcome of TA and the input of QA at the same time.

7.5 METHODOLOGY AND SCOPE OF THE CBO CONSENSUS PROGRAMME FOR THE DEVELOPMENT OF PRACTICE GUIDELINES[17]

The CBO Consensus Development Programme was initiated by the Medical Scientific Council of CBO in 1982. In this council all scientific societies in The Netherlands are represented and the original task of the council, as formulated in 1979 when CBO was founded, is to give advice towards the implementation of the peer-review programme as described in paragraph 4.5.

One of the problems encountered during the implementation of the peer-review programme concerned the formulation of review criteria by the hospital based peer-review committees. Although for many medical issues physicians were able to formulate explicit review criteria for good medical care based on research results and their own 'implicit' experience, several issues remained controversial and could not be solved at the local hospital level. This situation led the Scientific Council of CBO to start a consensus development programme on a national level. The programme is supplementary to the peer-review activities in hospitals; consensus guidelines can be translated into review criteria on the hospital level (KLAZINGA ET AL. 1987).

7.5.1 *Characteristics of the Consensus Development Programme carried out by* CBO

The methodology of the consensus development programme organised by CBO fits into the general model described in the previous paragraph, but it also has a few special characteristics distinguishing it from the methods used in other countries. For example the CBO consensus programme is primarily directed towards the medical profession, it aims at changing the behaviour of medical specialists. The purpose of the programme is:

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[17] *This paragraph is partly based on: Klazinga N.S., Casparie A.F. and Van Everdingen, J.J.E.,(1990), Profile of the Consensus Development programme in The Netherlands: National Organisation for Quality Assurance in Hospitals (CBO). In C. Goodman and S. Baratz (Eds.), Improving Consensus Development for Health Technology Assessment: an International Perspective, Council on Health Care Technology, National Academy Press, Washington, pp. 110-118.*

- to establish guidelines on controversial medical issues (meaning debate among experts about the 'state of the art');
- to ensure the quality of care by promoting behavioural change among medical practitioners.

(CASPARIE AND VAN EVERDINGEN, 1985).

The goal is to develop practice guidelines based on scientific knowledge but also in accordance with the opinion of the medical professional community. The programme is run for and by the profession itself (scientific associations), but finds recognition among financiers, government authorities, and patient organisations. Among other things this recognition is the interest of these parties to get involved in the guideline development process or the formal or informal attempts to influence the agenda of the programme. The clinicians are the intended primary users of the consensus statements; however, recommendations may also be of interest to hospital administrators and policy-makers (CASPARIE ET AL., 1987).

In contrast to programs in the USA (NIH), Great Britain (King's Fund) and Sweden (SDU), the roots of the CBO are anchored in quality assurance activities of the medical profession rather than in technology assessment initiated by the government and scientific societies are the main carriers of the programme (CASPARIE, 1991).

The programme assesses selected clinical problems. The choice of medical topics to be assessed depends on the problem in question: diagnoses, therapy, drugs, devices, medical or surgical procedures, support systems, organisational and administrative systems may be discussed separately or in combination.

The following table, table 1, lists the consensus conferences that resulted in practice guidelines over the years.

TABLE 1

Consensus programme for guideline development as organised by CBO *since 1982*

1982	1. a. b.	*Blood-transfusion policy in hospitals*
1983	2.	*Thoracic and lumbar vertebral injuries*
	3. a. b.	Screening carcinoma of the breast
1984	4. a. b.	*Severe brain damage*
	5.	Melanoma of the skin
	6. a. b.	*Platelet transfusion policy*
1985	7.	*Diagnosis of solitary thyroid nodules*
	8. a. b.	*Prevention of bedsores*
	9. a. b.	*Osteoporosis*
	10. a. b.	*Diabetic foot problems*
1986	11.	*Diagnosis of deep-venous thrombosis*
	12.	*Non-scrotal testis*
	13.	Treatment of bedsores
	14.	Drug addicts in prisons
1987	15.	*Prevention of herpes neonatorum*
	16. a. (b)	*Treatment of haemophilia*
	17.	*Follow-up colon polyps*
	18. a. b.	*Hypercholesterolemia*
	19	Diagnosis suspect lymph nodules in the neck
	20.	*Diagnosis atopic syndrome*
	21. a. (b)	*Total Hip Prosthesis*
	22.	*Follow-up colorectal cancer*
1988	23.	*Diagnosis of dementia*
	24.	*Sports and cardiac pathologies*
1989	25.	*Prevention of deep-venous thrombosis*
	26.	*Prevention Hospital Infections*
1990	27.	*Diagnostics for lung carcinoma*
	28.	*Diagnosis and treatment of hypertension*
	29.	Melanoma of the skin (second meeting)
	30.	*Nutrition and allergy*
	31.	*Acute otitis media*
1991	32.	*Cerebrovascular accident*
	33.	*Diabetic retinopathy*
1992	34.	Diagnosis of lung embolism
	35.	Children with COPD (asthma)
	36.	Sexually transmitted diseases
	37.	Nutrition advice for diabetics
1993	38.	Haemorrhoids
	39.	Soft-tissue tumours
	40.	Diagnosis of peripheral arterial diseases
1994	41.	Congestive heart failure
	42.	Depression in adults
	43.	Chronic bowel diseases in children
1995	44.	Prevention of recurrence of vascular incidents
	45.	Sacrolumbar radicular syndrome
1996	46.	Blood-transfusion policy (second meeting)

Guidelines in italics are included in the analysis described in 7.7 and 7.8.
Revised guidelines are labelled 'b' behind the original text;(b) indicates that the text is excluded from the analysis.

Related to the four characteristic distinctions, described in the previous paragraph (7.3), the scope of the CBO consensus programme can be characterised as:

- a mixture of educational and process control goals;
- execution a the national level with active involvement of scientific societies of different medical specialties;
- aimed for use within internal quality systems (practice guidelines should be used for the formulation of review criteria on the local hospital level);
- aimed at the description of appropriate care (application of knowledge) rather than as a mechanism for making critical choices in health care.

Suggestions for topics for consensus conferences are usually made by scientific societies or they stem from the experience with peer review in the hospitals. Topics are selected by the Medical Scientific Council based on the following criteria:

- controversial in the literature and among practitioners;
- relevant in terms of health benefit (either a high prevalence from an epidemiological point of view and/or severe outcome and/or large expected improvement in care);
- feasibility of consensus development (an assessment is made of the political and practical dimensions of the topic to prevent that different groups of specialists use the CDC process as a vehicle to expand their domain at the expense of other specialties);
- relevant for medical practice;
- sufficient scientific data available.

The selection process for consensus topics has become more formalised over the years. Since 1991 a standard form for application of topics has to be filled out before a topic is discussed in the council. This formalisation of the decision-making process for consensus topic selection was influenced by the experience with the programme over the years.

7.5.2 *Format and conduct of the process*

The consensus development process requires about two years. Once a topic has been chosen, a suitable chair is selected for the working group. Formation of the working group takes about three months. All members of the working group are experts and official representatives of their respective scientific societies. Representatives from the fields of nursing, physiotherapy, and general practice are invited to participate when considered relevant. During the last years there is a growing tendency to include representatives from hospital management and patient organisations. The working group has a period of approximately nine to twelve months to formulate tentative answers to questions posed at the beginning of the process. The group has on average 10-15 members and meets 6-10 times. During this period a syllabus with background

information on the topic is written by the members of the working group and a draft consensus statement is formulated.

The consensus conference takes place after completion of the draft statements by the working group. All practitioners and interested persons can attend the conference; attendance has ranged from 150 to 1000 individuals. The conference itself lasts one day (in one case this was two days). Two weeks in advance of the conference, participants receive the syllabus with background information and drafts of proposed consensus statements. All statements are defended by the working group as a whole. During the day the different statements are introduced with short presentations by working group members. Considerable time is allotted for discussion between members of the audience and members of the working group. In contrast to the consensus model used by the NIH, and copied in the UK and France, no specific jury is used. In the CBO model the audience is considered the jury and is expected to participate actively in the debate. At the end of the day, the Chair (the same person who chaired the working group) summarises the results and tries to formulate a final set of practice guidelines. The Chair asks the audience explicitly whether they agree with the consensus text and existing 'dissensus' will be noted. The Chair explains the further procedure (publication, dissemination) and the meeting is closed. Two months after the consensus conference, the working group meets for the last time to finalise the text of the consensus statement for publication.

7.5.3 Documentation and use of evidence in consensus development

The information used during the consensus development process comes from the experts in the working group. Sometimes, formal literature searches are performed on a small scale, but in most cases the experts bring in scientific literature as well as their own material. The working group may use reports on clinical trials, epidemiological studies, and literature reviews for particular topics and in some case use was made of methodologies such as meta-analysis, medical decision-making and cost-effectiveness analysis (KLAZINGA ET AL., 1987). The available evidence is weighed systematically on a few occasions according to a method proposed by Sackett (SACKETT, 1986). In most cases, however, evidence collected from scientific literature and expert opinion are merged during the discussion into final judgements. In the syllabus, written by the members of the working group, reference is made to the data used during the consensus development process. The most important literature is also mentioned in the text of the final consensus statement. Systematic use of meta-analysis, medical decision-making techniques and CEAs is a wish for the future but at present not a reality.

7.5.4 *Dissemination and impact of the consensus guidelines*

To reach physicians in The Netherlands, CBO consensus development conferences are widely announced via professional journals and direct mailing to the appropriate specialty groups. Announcements are posted in hospitals to attract attention. The final consensus statements are published in the *Nederlands Tijdschrift voor Geneeskunde* (the Dutch Medical Journal); copies are sent to those who have attended the conference as well as medical staff, hospital administrators, and chairpersons of peer review committees. Scientific societies that are organisers of the consensus development conference sometimes send the consensus results to their members. The text can be purchased from CBO, and CBO staff is also active in disseminating the consensus reports when visiting hospitals to assist peer review committees.

Although the consensus guidelines have no legislative bearing, they acquire status through the involvement of the different scientific associations and experts.

The CBO consensus development programme has been evaluated in terms of both process and outcome (VAN EVERDINGEN, 1988). Evaluations have addressed:

- the consensus meeting process and the activities in the working groups (VAN EVERDINGEN, KLAZINGA, SCHERER, CASPARIE 1990);
- awareness of the existence of consensus guidelines among medical practitioners (VAN EVERDINGEN, 1988);
- impact of consensus guidelines as reflected in the use by practitioners use of the text for formulation of protocols and review criteria in local hospital situations (VAN EVERDINGEN, 1988; VAN DER ZANT ET AL. 1995);
- effects of consensus guidelines on the behaviour of medical specialists (on both hospital and national level) (VAN EVERDINGEN, 1988);
- impact on health outcomes (VAN EVERDINGEN ET AL. 1993).

Results of these evaluation studies will be used in the discussions in the following paragraphs and will be compared with general findings in literature on the effectiveness of guideline development and implementation.

7.5.5 *Revision of guidelines*

All guidelines formulated through the CBO consensus development process are revised every five years. The original working group assesses whether changes are necessary and can either modify the text through written amendments, working groups meetings or a whole new consensus conference. The revised versions go through the same dissemination process as the original texts but are only published in the medical journal (NTVG) when major alterations have occurred.

7.6 GENERAL REFLECTIONS ON THE EFFECTIVENESS OF THE METHODOLOGY OF CONSENSUS CONFERENCES FOR GUIDELINE DEVELOPMENT AS APPLIED BY CBO

Given the multitude of objectives and expectations about guidelines, the complexity of the guideline development processes, the heterogeneity of the topics that are addressed by guidelines and the complexity of the social and managerial systems through which they are supposed to affect the behaviour of specialists and others thus resulting in improved quality of care covering its full kaleidoscope of aspects, it is not surprising that scientific answers on the effectiveness of guideline development are hard to give. One can even wonder whether there is sufficient common rationale behind the various attempts to formulate guidelines in time to justify research strategies that aim at providing answers that are not only valid but also generalizable. May this be, with the interest in practice guidelines, the number of publications about their development, implementation and effect are many (e.g. KOSEKOFF J. ET AL. 1987, FORD L.G. ET AL. 1987, BATTISTA R.N, FLETCHER S.W. 1988, LOMAS J. HAYNES R.B. 1988, MYERS S.A., GLEICHER N. 1988, WACHTEL T.J., O' SULLIVAN P. 1990, GOTTLIEB L.K. ET AL. 1990, LOMAS ET AL. 1991A, HAINES A. FEDER G. 1992, KLAZINGA N.S., KAASENBROOD A., 1992, DALHUYSEN ET AL. 1993, ETTEMA R. 1993, GORTON ET AL. 1995, DEIGHAN 1995, KAASENBROOD 1995). Among them are review articles, covering the use of practice guidelines in various health-care settings from Leape (1990), Lomas (1991b), Grol (1992), Grimshaw and Russel (1993) and Grimshaw et al. (1995). Especially the articles by Grimshaw and Grol provide an extensive overview of elements of the methodology of practice guideline development and the use of implementation strategies that are supported by scientific evidence.

At the same time in various articles and editorials the question is posed whether consensus conferences (in the eighties) and guideline development (in the nineties) are worth the effort (E.G. RENNIE 1981, OLIVER 1985, MAY 1985, ROBINSON 1991, MCGUIRE 1990, SUNDWALL 1991). An opinion that is strengthened by publications that show the failure of guideline implementation (E.G. COE ET AL. 1977 KOSECOFF ET AL. 1987, LOMAS ET AL. 1991 SHERMAN ET AL. 1992 CLINE ET AL. 1995, LEWIS ET AL. 1995). It seems clear that a generic model for guideline development and implementation on all clinical topics and for all different target groups is difficult to construct. The implementation of guidelines is in essence not different from other attempts to change physicians' practice behaviour. Thus literature from medical sociology, psychology, innovation theory, communication sciences and organisational change theory can all provide insights that help in understanding the underlying mechanisms that transform a practice guideline from a written document into an instrument for change in practice (E.G. EISENBERG 1979, ROGERS 1983, FREIMAN 1985, GREER 1988, GOLDMAN 1990, GELIJNS 1991, STOCKING 1992, WENSING ET AL. 1994).

The first step, however, is to produce such a written document, but is seems evident that the development and implementation of guidelines are intertwined in a more or

less consistent goal-methodology effect scheme (KAASENBROOD, KLAZINGA 1993). Although an overall evaluation of the CBO consensus conferences programme has not taken place, based on separate bricks and pieces of evaluation (E.G. VAN EVERDINGEN 1988, GROL ET AL. 1990), combined with literature on evaluations of similar programmes, the following reflections can be made on the effectiveness of its methodology. The reflections follow items identified by Lomas in 1991 in a review article on the methodology and impact of consensus conferences: 'Words without Action' (LOMAS ET AL. 1991).

7.6.1 *Scope and objectives of consensus conferences and guideline development*

In the paragraph on reasons for guideline development (7.3) a series of characteristics related to the objectives and scope of a guideline development programme have been brought forward that seem relevant for its evaluation. As has been described in the previous paragraph, the CBO consensus programme is mainly orientated to medical specialists, taking an educational rather than a process control approach. It is a national programme, aimed at use for local forms of quality management and focused on the proper application of techniques rather than their selection. These characteristics make the programme different from the consensus conferences in the UK (STOCKING 1985, KING'S FUND 1994), Sweden (CALLTORP 1988) and Denmark (DANNESKIØLD-SAMSØ, 1991) where the participation of politicians, administrators and economist is more dominant, shifting the focus from the mere clinical to the public health and health policy domain. The intensive involvement of scientific societies and focus on clinical practice makes the programme more comparable with initiatives in the USA (NIH, JACOBY 1985, PERRY AND WILKINSON 1992; AHCPR, CLINTON 1991, WOOLF 1991) and France (ANDEM 1992). However, also with these programmes some major differences exist; the scale (a national programme in The Netherlands addressing at most 14,000 medical specialists is not comparable with a national initiative in the USA) and the jury model (used by NIH and ANDEM). The limitation of scope and target group seems an advantage of the Dutch programme. The scope of the 'innovation' and the nature of the communication channels and social system make the diffusion of a Dutch consensus guideline better controllable than in programmes with a broader focus and target group (see also 7.11). This theoretical argument is also supported by empirical evidence in the evaluation reports of some of the other programmes (KING'S FUND 1994, JOHNSSON 1988, CALLTORP 1988, WORTMAN ET AL. 1988, KOSEKOFF ET AL. 1987, LOMAS 1991).

Two problems related to topic selection and background preparation identified by Lomas (1991) seem also relevant for the Dutch experience: the problem of timing and the problem of assessment of research results *and* existing practice. Although a formal evaluation has not taken place, in retrospect it seems that the timing of some topics was either too early or too late. The consensus on cholesterol in 1987 and osteoporosis in

1985 still lacked the findings of ongoing research and resulted in discussions afterwards and the consensus on diagnosis of the atopic syndrome (1987) mainly seemed to reinforce the already prevailing views among professionals. Over the years the need to establish a baseline for existing practice related to a specific topic has been recognised and several attempts have been done to obtain information about practice variation and its reasons at the start of the consensus procedure (e.g. study of hand washing GROL ET AL. 1990). Nevertheless the scientific focus is still dominant and too few attempts seem to have been made beforehand to explore the potential for the implementation of practice guidelines given the existing hurdles related to the prevailing opinions of physicians and the structuring of the health-care system. Without performing this practice assessment the consensus meetings remain a dialogue among researchers, not a guide to action (GREER, 1987).

7.6.2 *The intermediary function between science and practice*

Several articles have appeared about the dynamics of forum meetings of experts and the associated ethical consequences of labelling statements as scientific evidence (E.G. VEATCH AND MORENO 1991). They stress the tension between the dynamics of the group process and the systematic use of scientific evidence. Antman et al. (1992) conclude that for treatments for myocardial infarction, by comparing the results of meta-analysis and the recommendations of clinical experts, the finding and analysing of all therapeutical trials in a given field has become such a difficult and specialised task that the clinical experts, called on to summarise the evidence in a timely fashion, need access to better databases and new statistical techniques to assist them. Diffusion of research results in practice are in their opinion, through the traditional means of textbooks and review articles by experts, far too slow. These conclusions are enforced by publications that stress the importance of systematic screening and weighing of evidence for consensus conferences (SACKETT 1986, WOOLF 1991, LOMAS 1991). Consequently publications have appeared that stress the need for a standard format for the writing of practice guidelines that includes the listing of the scientific evidence used, the expert's names and the context for application; these requirements have become mandatory for publication of consensus texts in journals as the JAMA (OLSON 1995) and the Lancet (PERRY AND PILLAR 1989) and the Canadian Medical Association's Journal (SQUIRES 1991). It is also proposed to reach agreement on the categorisation of the weight of evidence in consensus texts. Various suggestions have been made that all take the Randomised Control Trial as the most trustworthy research design and successively try to grade the supporting evidence and thus the recommendations based on them (E.G. SACKETT 1986, JACOBY 1988, EDDY 1989).

For the CBO programme the review of literature has not been formally systematised, neither is there a formalised system of grading of recommendations to be used in the

consensus text. Instead the preparation of an background document (syllabus) by the experts in the working group is considered to represent the scientific background of the statements (and lists the literature used). In the text qualifiers are used to distinguish the strength of the evidence for recommendations. However, the use of these linguistic qualifiers is not standardised. During several conferences (e.g. treatment of bedsores) the experts have themselves developed an ad-hoc grading system. Compared with other programmes and the (mostly American) literature on guideline development (FIELD AND LOHR 1992, WOOLF 1991) the CBO programme seems to lack scrutiny in the synthetizing and weighting of evidence. Although recently the need for more formalisation of the procedure has been stressed formally (LOMBARTS ET AL. (RED.), LSV/CBO, 1996), at present the guideline development process relies to a large extent on the social processes between the (carefully selected) experts.

7.6.3 Input and output of the group process

How to generate a common focus in a group, what criteria to use to resolve controversy and how to define consensus seem to be crucial elements in the group judgement processes to formulate guidelines (LOMAS 1991). Evaluation studies stress the limitation of questions posed to a group (KAHAN ET AL. 1988), the importance of a neutral role of the chairman (JENETT 1985), the importance of opinion leaders for the acceptance of the guideline (LOMAS 1988, GRIMSHAW 1995, KAASENBROOD 1995) and formalisation of the decision-making structures (MC GLYNN ET AL. 1990).

The format chosen by CBO, i.e. a working group of experts that prepares the draft text during a year, seems better suited for scientific group dynamics than one time meetings (MCGLYNN ET AL. 1990). However, experience shows that these long time group processes also run the danger of getting tedious and focusing of the discussions on a limited number of hobbyhorses among specific group members. Evaluations among working group members afterwards show in general that they are satisfied (VAN EVERDINGEN: unpublished material) and drop-out of group members during the process is rare. Although the format of the discussions is structured by the questions that need to be answered, and guidance to the process is given by CBO staff, personal experience is that the 'scientific debates' are to a large extent dominated by the social interactions between group members and can only be properly understood when taking the personal interests of the group members into account. This social interaction can be a merit in itself, stimulating commitment and mutual understanding, independent from the actual outcome of the group work. As with all social processes, leadership is of the utmost importance and an over structuring of the discussions seems to run counter with the motivation of group members to participate in a 'professional debate'. Given the importance of opinion leaders in providing credibility to the process and its outcome, the social prerequisites to create action must be balanced against scientific scrutiny.

This balance finds its ultimate expression in the 'consensus' text. Several publications have appeared on the use of language in guidelines and their consequences for implementation (E.G. KAHAN ET AL. 1988 HASTINGS 1993). In the Dutch consensus texts transparency is sought through presenting the texts in a series of concrete statements that were agreed upon during the consensus conference. As a standardised grading of evidence and recommendations is lacking and the texts must reflect the stochastic nature of medicine as well as its interpretation by a large group of conference participants, the language in the final texts is usually full with qualifiers and reservations. Thus sensitivity for language has become a prerequisite for writing practice guidelines. Sometimes correct phrasing seems to be the limiting factor in a group discussion when the feeling exists that everybody is in agreement.

The guideline process of the AHCPR has four different products per topic: the actual clinical practice guidelines (statements, recommendations, algorithms and summary of evidence), a quick reference guide for clinicians, a consumer version and a guideline technical report (WOOLF 1991). Apart from the official guideline (statements and recommendations) the CBO consensus process produces a syllabus with the (scientific) background material written by the experts. Furthermore, the guideline is published in the format of a running text rather than a series of statements in the *Nederlands Tijdschrift voor Geneeskunde*. A consumer version is not published, however, the Dutch Consumers Union (*Consumentenbond*) has recently published a book for health consumers where recommendations are based on the published guidelines of CBO and NHG (VAN EVERDINGEN 1995). A quick reference guide for clinicians is as yet not produced for CBO guidelines. Hence, on the whole the nature of the CBO products and the ones of the AHCPR seem similar in nature and purpose, although like with scientific evidence, the American approach is more formalised.

The following paragraph will present the results of a more thorough text analysis of 33 consensus guidelines focusing on the managerial profile of the texts. The chapter will conclude with reflections on the effectiveness of the consensus programme in providing practice guidelines that actually can be used for quality management of medical specialist care in hospitals by discussing the programme and its impact from the perspective of professionalisation, management and innovation theory.

7.7 MANAGERIAL PROFILES OF 33 PRACTICE GUIDELINES DEVELOPED THROUGH THE CONSENSUS DEVELOPMENT PROGRAMME ORGANISED BY CBO BETWEEN 1982 AND 1992: MATERIAL AND METHOD OF ANALYSIS

To assess the potential of the practice guidelines developed through consensus conferences organised by CBO to be used as an instrument for quality management of medical specialist care, an effort has been made to describe profiles of these guidelines from a management perspective. The framework for analysis as described in chapter 2 has been used for text analysis of a total of 33 practice guidelines developed between 1982 and 1992.

Material selection

These 33 sets of guidelines constitute the result of 26 consensus conferences and a total of 7 sets of revised texts, formulated five years after the release of the original text. Only those sets have been analysed in which the consensus text was composed of statements. On a limited number of occasions (seven times between 1982 and 1992) the results of the consensus conference were presented in the format of an essay text. For reasons of comparability and consistency in the analysis, these texts were excluded from the attempt to describe the management profile. Texts excluded from the analysis refer to the consensus conferences 3, 5, 7, 13, 14, 19 and 22 in table 1 (see page 280). The remaining 33 texts were formulated in the format of a series of statements.

Selection of categories for coding

All statements were coded in accordance with a list of categories. These categories were derived from the general framework for analysis provided in chapter 2 and are an operationalisation of the 'why', 'what' and 'how' approach.

To explore the extent to which answers on the 'why' question are included in the practice guidelines, thus exploring which dimensions of quality are dominant, statements were scored in the categories *effectiveness, satisfaction, efficiency, costs and ethics*, when one of these dimensions was mentioned explicitly as a reason for the development of the guideline.

To analyse the extent to which the 'what' question is addressed in the practice guidelines, thus getting an impression about the 'scientific' and knowledge-oriented character of the guidelines, statements on (new) *knowledge and definitions* were scored as separate categories. To explore further the nature of the guidelines with respect to the extent to which they were actually instructive towards medical practice, statements were scored in the categories 'what not to do (advice)', 'what certainly not to do (absolute)', 'what to do

(advice)' and 'what certainly to do (absolute)'. The scoring of these last four categories was based on the extent in which Qualifiers and Reservations were used in the text. Qualifiers are the ways of communicating how confident the authors are in their claim and involve words such as 'probably', 'sometimes', 'never', and 'always'. Reservations are the circumstances under which the author would decide not to defend a claim and involve words such as 'unless' and 'until' (JOHNSON AND JOHNSON 1991:276). Furthermore, a category for statements on dissensus and a category for statements on the need for further research were added.

To explore the extent in which managerial 'how' questions are addressed in the practice guidelines, the scoring categories 'who', 'where' and 'when' were included together with the scoring category 'information' (statements referring to the need to document specific information i.e. registry of artificial hips to assess complications), 'local guidelines' (statements referring to the necessity to formulate local review criteria, i.e. development of local blood-ordering lists), 'consultation' (statements on the need for consultation/second opinion), and 'feedback/audit' (statements on the necessity to create systematic feedback mechanisms on medical practice).

The text analysis is performed on the original Dutch texts. This is relevant for the interpretation of the results as qualifiers and reservations used in the texts (semantic richness) and the inclusion of different notions in one sentence (possibilities of syntax) are different in the English and Dutch language. Some linguistic bias may have been introduced in presenting the results in English. The exercise confirmed the author in his impression that it is extremely hard to translate practice guidelines from one language to the other when they are the result of intensive discussions resulting in semantic compromise, as is the case with consensus conferences.

Coding procedure

All practice guidelines were reviewed by two reviewers (Klazinga, Van Everdingen), both actively involved and knowledgeable about the different consensus conferences. In line with the methodological considerations expressed in chapter 2 a review of this nature seemed to be more valid when made by reviewers intimate with the underlying discussions and phrasing problems of the texts, than a review by a neutral outsider.

The different scoring categories were developed after ample discussions based on personal experience. Scoring of pilot texts was done separately and differences were discussed to create a common frame of reference. From the onset of the process differences were minor, as a lot of the classification appeared to be rather obvious. Especially interpretation of the qualifiers needed standardisation, as this is more related to subjective values and linguistic sensitivity than the more objective scoring of content matters in highly distinctive categories. After this initial standardisation phase, all texts were reviewed by the two reviewers and consensus was reached over all scores. The bias,

which is inherent to this scoring method, is considered to be counterbalanced by the added meaning to the scoring when it is performed by persons intimate with the group processes that led to the formulation of texts of the practice guidelines. The purpose of this analysis is not to provide statistical truths about inter-consensus text comparisons but to synthetize the empirical material in such a way that it provides insight into its meaning from the perspective of quality management of medical specialist care. In this respect the methodological concerns for this analysis are similar to the ones expressed in relation to the analysis of priority meetings as discussed in chapter 6.

All statements were scored in one of the 'why', 'what' and 'how' categories. The total number of scored statements per practice guideline is not always identical with the official number of statements of the texts. In several cases official numbered statements actually contained more than one statement as consistent with the scoring categories. In those cases, phrases were considered as separate statements although they may be headed under the same number in the official text.

All statements have been categorised. Categories are mutually exclusive so a statement can only fall in one of the categories. Illustrations of the scoring methodology will be provided in the following paragraphs

7.8 MANAGERIAL PROFILES OF 33 PRACTICE GUIDELINES AS DEVELOPED THROUGH THE CBO CONSENSUS DEVELOPMENT PROGRAMME BETWEEN 1982 AND 1992: RESULTS AND DISCUSSION

Appendix 1 (see page 318) provides the results of the scoring for the different consensus guidelines. The numbering 1-33 corresponds with the different consensus conferences listed in table 1 (see page 280). The 'b numbering' relates to revised versions of guidelines.

A total of 924 statements was scored, covering 33 practice guidelines. The average number of statements per consensus text is 28, with a variance between 12 (text on follow-up colon polyps 1987) and 54 (revised text on osteoporosis 1990). This last extreme number of statements can be explained by the fact that the consensus conference on osteoporosis is the only one that lasted 2 days (1985) and produced initially 44 statements that were extended by the members of the working group in the revised version in 1990 based on new findings in the literature. Other consensus conferences that produced a more than average amount of statements were the ones on transfusion of thrombocytes (1984, 40 statements), blood transfusion in hospitals (1982, 39 statements) and traumatic lesions of the back (1983, 39 statements).

7.8.1 *Expressions of underlying reasons for guideline development*

The extent to which 'why' notions are included in the consensus texts is limited. This could be expected, because formulating practice guidelines presupposes focusing the discussion on the 'what' and 'how' and not on the 'why'. The overall goals of the programme are known as described in the paragraph about goal, method and scope (7.5) and the selection procedure for topics serves as a filter where the 'why' reasons are weighted. The guideline development process starts with a series of explicit 'what' and 'how' questions posed to the members of the expert group. The inclusion of statements on effectiveness, satisfaction, efficiency, costs or ethics in the consensus texts can therefore be interpreted as an attempt of the practitioners that formulated the statements, to express their concern and/or their need to explain to others outside the medical community some important notions. A total of 39 statements could be scored in one of the 'why' categories (this is 4% of all statements). They are found in 15 texts of which 4 are revisions. The consensus conferences that seem to contain most of these statements are the one on the prevention of bedsores (trying to stress the importance of this neglected problem and its consequences in terms of costs and patient satisfaction), the one on treatment of haemophilia (stressing the cost consequences for society) and the one on total hip replacement (stressing the cost effectiveness of surgery in comparison with existing waiting lists). Although these statements for external (political) purposes seem to be a minority, they show that even when a consensus programme is set up and executed for and with clinicians, broader notions than just the science and practice of medicine, such as cost consequences and ethics, enter the debate and are reflected in the final statements. This was also shown in the analysis presented earlier of the opinions of scientific associations on quality (4.4.2-4.4.5). Social concern is more often expressed in terms of costs (11 times) or the importance of the effectiveness of a certain diagnostic procedure or therapy (18 times) than in statements on patient satisfaction (3 times) or ethical concerns (3 times).

7.8.2 *Statements that reflect medical knowledge*

The extent to which 'what' notions are included in the statements inform us about the need, felt by the experts and conference participants, to express certain truths in non-behavioural statements. The first category of 'what' statements are the statements on definitions. The starting point of debates on medicine among physicians is the creation of a common language on the nature of diseases. Sometimes defining terms is necessary for new phenomena but it can also be that new diagnostic possibilities are an incentive to redefine already existing medical terms. It goes without saying that standardisation of terms and definition is mandatory for future attempts to document findings and acquire new knowledge for both scientific and management purposes.

In total 45 statements out of 954 (5%) are about definitions. These statements are found in 17 original practice guidelines and in 6 revised versions. Most practice guidelines contain only one statement with a definition, usually at the beginning of the text. However, there are a few exceptions among consensus conferences where the debate seems to have been focused more specifically on the definition of terms, resulting in more statements on definitions: traumatic lesions of the back (1983/3), osteoporosis (1985/1990 3), diagnoses of atopic syndrome (1987/5), diagnosis of dementia (1988/6), sports and cardiac pathologies (1988/3), nutrition and allergy (1990/3).

Especially in the cases of the atopic syndrome and diagnosis of dementia, discussions about definition of the disease concept were at the core of the consensus process. The input from many different disciplines such as biochemical, physiological, pathological, and psychiatric and psychological disciplines may have contributed to this fact.

A total of 177 statements (19%) has been scored by the reviewers in the category 'knowledge statements'. These statements are characterised by the fact that they are not formulated in behavioural terms ('do this or do that'), but just formulate a (scientific) fact, usually in the format 'there is a relation between A and B'. Although these statements serve an educational goal, they are not practice guidelines in the strict sense of the definition, as they do not guide practice in terms of explicitly stated recommendations. However, they may be necessary to pave the way for guidelines via understanding to acceptance. As these statements form 19% of all statements, they show that the pure knowledge component of practice guidelines is still considerable. There is, however, a wide variation of the percentage of knowledge statements in the different sets of practice guidelines. The lowest are the texts on blood transfusion (1982, 8% and none in the revised version), diagnosis of deep-venous thrombosis (1986, 6%) and diagnostics for lung carcinoma (1990, 6%).

Texts with the highest percentage of knowledge statements are: osteoporosis (1985 and 1990 both 50%), diagnosis atopic syndrome (1987, 30%), and nutrition and allergy (1990, 50%). At these conferences the main focus appears to have been on the scientific debate to understand the phenomenon itself, and the shift to more practice-oriented statements could not be made in the context of the CDC process.

Appendix 1 (see page 318) lists the different consensus texts by the percentages of the whole text that could be categorised as either definition or knowledge statements (the numbers between brackets provide the absolute number of statements). The consequences of the size of the 'what' component of practice guidelines for the implementation strategy will be discussed later in this chapter.

Apart from statements where consensus was reached on either scientific facts (knowledge statements) or preferred practice (statements holding an advice formulated in behavioural terms), explicit statements can sometimes be found about consensus on dissensus. In total 28 statements (3%) are of this nature. Texts that contain more than

one dissensus statement are the one on osteoporosis (1985: 2 and in 1990: 4 of a total of respectively 44 and 54 statements), diagnosis of deep-venous thrombosis (1986: 4/17), acute otitis media (1990: 3/18) and diabetic retinopathy (1991: 2/22).

Another phenomenon that occurred during consensus meetings when too little scientific evidence was available, is the formulation of statements on necessary additional research. Although such a statement can hardly be considered valuable as a practice guideline, it is, similar to the 'why' notions discussed above, an instrument to express towards the outside world a commonly felt need. In total only three of those statements were made in the consensus texts on osteoporosis (revised version 1990:2), and follow-up colon polyps (1987:1). This phenomenon, to add statements on future research, is not typical for the CBO guidelines but can also be found in other guidelines, especially when they are formulated under the aegis of a research organisation such as for example the NIH.

7.8.3 Statements on medical practice

A practice guideline can, through its content, guide in the direction on 'what' to do (planning dimension, decision support), and 'how' to do it (controlling dimension, process support). In accordance with the framework of analysis as discussed in chapter 2, the scoring categories chosen try to focus on 'what' from a medical scientific perspective, and on 'how' from a managerial perspective. Many statements contain both managerial and scientific notions and therefore it is artificial to discern them in absolute terms. What we tried to do, however, was to identify statements that were purely related to knowledge (as discussed above) and statements that held an explicit managerial component (e.g. 'who, where, when').

Another important dimension of a practice guidelines is the extent to which by the nature of its formulation it really guides. Even when statements are phrased in behavioural terms (i.e. 'when this, do that') the choice of language can reflect the importance or firmness of the recommendation. Therefore the reviewers of the consensus statements tried to categorise the different statements that contained advice on medical practice formulated in behavioural terms by the nature of the advice given. All statements that were phrased in behavioural terms were considered and scored in one of four categories: advice what to do, advice what certainly to do, advice what not to do, advice what certainly not to do. Scoring of the different statements in either a category 'what to do' or 'what not to do' is easy. The scoring between 'advice' and 'strong advice' is, however, a matter of interpretation of the different use of qualifiers in the Dutch language such as 'could', 'should', 'might', 'must', 'in general', 'always' etc. The fact that both reviewers had intimate knowledge on the discussions that led to the formulation of the texts helped in the scoring process.

Assessment of the 'nature' of statements as part of the 33 sets of practice guidelines showed that 442 statements were phrased in terms of behavioural actions. This constitutes 48% of all statements made. Of these 442 statements 58 tell us what not to do, 54 tell us what certainly not to do, 168 tell us what to do and 162 tell us what certainly to do.

Consensus texts that contain relatively few statements phrased in behavioural terms are the ones on osteoporosis, non-scrotal testis, sports and cardiac pathologies, and diabetic retinopathy; these are partly the same texts that were identified earlier as being focused on knowledge statements.

Most texts seem to have around half of their statements phrased in behavioural terms. Looking at the nature of the recommendations the observation holds that in most text the number of positive advice versus negative advice is 3:1.

Practice guidelines with the highest percentage of absolute negative advice are melanoma of the skin (1990 revised version, 5 of 18 statements), and diagnostics of carcinoma of the lung (1990, 3 of 18 statements). Practice guidelines with the highest percentage of negative advice (both phrased in absolute and neutral terms) are, apart from the two mentioned in the previous sentence, prevention of deep-venous thrombosis (1989, 4/22), diagnosis atopic syndrome (1987, 4/20) and cholesterol (1987/1990 respectively 3/20 and 4/23) and thrombocyte transfusion policy (1984/1989 respectively 7/40 and 7/44).

Guidelines that contained the highest percentage of statements formulated in absolute terms on 'what to do' are the revised text on severe brain damage (1989, 7/23), cholesterol (original version 1987, 6 /20; this is mitigated in the revised version in 1992 towards 5/23, thus demonstrating that more scientific knowledge does not necessarily result in more explicit advice) and prevention of hospital infections (1989, 7/21). The decision to formulate a statement in absolute terms (negative or positive) seems independent of the overall character of the guidelines. Practice guidelines with an overall strongly formulated character in comparison to the others, cannot be identified. The consequences the nature of the statements has for the implementation strategy of the practice guidelines is discussed further on in this chapter.

7.8.4 Statements related to medical management

To find out to what extent practice guidelines actually contain explicit advice that can be used for management purposes, statements were identified that could be scored in the categories 'who' (responsibilities), 'where' (location) and 'when' (planning in time). To explore whether notions on quality management, and the possibility to translate the guideline in local review criteria, were already prevalent in the sets of guidelines, the scoring categories 'information', 'local guidelines', 'consultation' and

'feedback audit' were used. These scoring categories reflect the 'how' dimension as described in the framework for analysis in chapter 2.
With respect to the scoring in the 'who' category, it should be noted that it is a general policy of consensus conferences not to discuss in detail which specialty should do what. Knowing that this type of discussion would rather create a negotiation than a consensus atmosphere, both in topic selection and chairing of meetings, it is a policy to describe necessary skills to perform a certain activity but to refrain from firm statements on specific responsibilities being assigned to one specific specialty or professional group. Although this general policy is accepted by most participants, this cannot prevent the fact that now and then consensus conferences become the focus of interprofession debates where different specialties try to claim certain domains. Examples are the consensus conference on traumatic lesions of the back (neurosurgeons versus neurologists) and diabetic retinopathy (ophthalmologists versus general practitioners). In total 46 statements could be identified that address the 'who' question (5%). More than 3 of those statements can be found in the practice guidelines on prevention and treatment of bedsores (revised version 1990 – 5 of 36 statements describing the role of nurses), total hip replacement (1987, 4 of 35 statements describing the role of the orthopaedic surgeon and the GP) and sports and cardiac pathologies (1988, 4 of 25 describing the role of sports medicine, as an emerging profession trying to claim a new domain).

Statements on where (location) a specific medical activity should take place were in total 20 (2%). Only in the practice guideline on the treatment of haemophilia this seemed to have played a major role (1987, 5 of 36 statements).

The 'when' question (timing) was addressed explicitly in 29 statements (3%). The texts in which the 'when' question seemed to play a relatively important role are the ones on blood-transfusion policy (1982, 5 of 39 statements), traumatic lesions of the back (1983, 4 of 39), and diabetic retinopathy (1991, 4 of 22). In the first two the emphasis is on logistics, for diabetic retinopathy the relation between the development of retinopathy and diabetes in time, is the focus of the when component.

In the category 'information' the reviewers have scored those statements that formulate the necessity of standardisation and documentation of specific data related to medical practice for the purpose of evaluation. The total of statements that refers explicitly to 'informatics' is 32 (3%).

More than average attention for the information need can be found in the practice guidelines on blood-transfusion policy (1982, 3 of 39 statements; for example, documentation and calculation of cross/transfusion ratios), prevention of bedsores (1985, 2 of 33; using a risk score to assess risk for bedsores), total hip replacement (1987, 2 of 35; stressing the need for a national database on the long-term effects of different types of prostheses), sports and cardiac failure (1988, 3 of 25) and non-scrotal testis (1986, 2 of

15 stressing the need to document the descent of testis in male youths to make a correct assessment for the need for surgery later on).
The necessity to formulate local review criteria to evaluate one's own activities was expressed in a total of 15 statements covering 8 different texts. More than average attention to the need to develop local review criteria is given in the practice guidelines on blood transfusion (1982, 3/39) and prevention of hospital infections (1989, 3/21).

Statements on the need for consultation, thus expressing explicitly the boundaries of individual professional behaviour, were formulated 20 times (2%). Texts that give relatively more attention to this aspect are the ones on blood-transfusion policy (1982, 4/39, and 1989, 3/30), prevention of herpes neonatorum (1987, 1/15), and stroke (1991, 3/32 statements).

Statements on the need of systematic evaluation (peer review/feedback/audit) were formulated 15 times in 8 different practice guidelines. This is a rather low percentage given the original roots of the consensus development programme in peer-review activities. Additional stress on the need for evaluation is given in the practice guidelines on blood-transfusion policy (1982, 2/39 and 1989, 3/30) and transfusion policy of thrombocytes (1984, 2/40), total-hip replacement (1987, 2/35) and prevention of hospital infections (1989, 2/21). As is described in chapter 4 and 5, both blood transfusion and hospital infections are areas where process control through systematic quality management has already matured and it is therefore not surprising that this is reflected in the guidelines on these topics.

The overall results as described in paragraphs 7.8.2-4 are summarised in the following table, table 2.

TABLE 2

Text analysis of CBO *consensus guidelines with coding of 924 statements in 33[18] guidelines formulated between 1982 and 1993 in 'why', 'what' and 'how' categories*

why	
effectiveness/satisfaction efficiency/costs/ethics	4%
what	
definitions	5%
knowledge statements	19%
advice on practice in behavioural terms	48%
advice what *not* to do	6%
strong advice what *not* to do	6%
advice what to do	18%
strong advice what to do	18%
dissent	3%
how	
who/where/when	11%
informatics	4%
local guidelines	2%
consultation	2%
feedback/audit	2%

7.8.5 *Construction of a content/nature matrix of the practice guidelines*

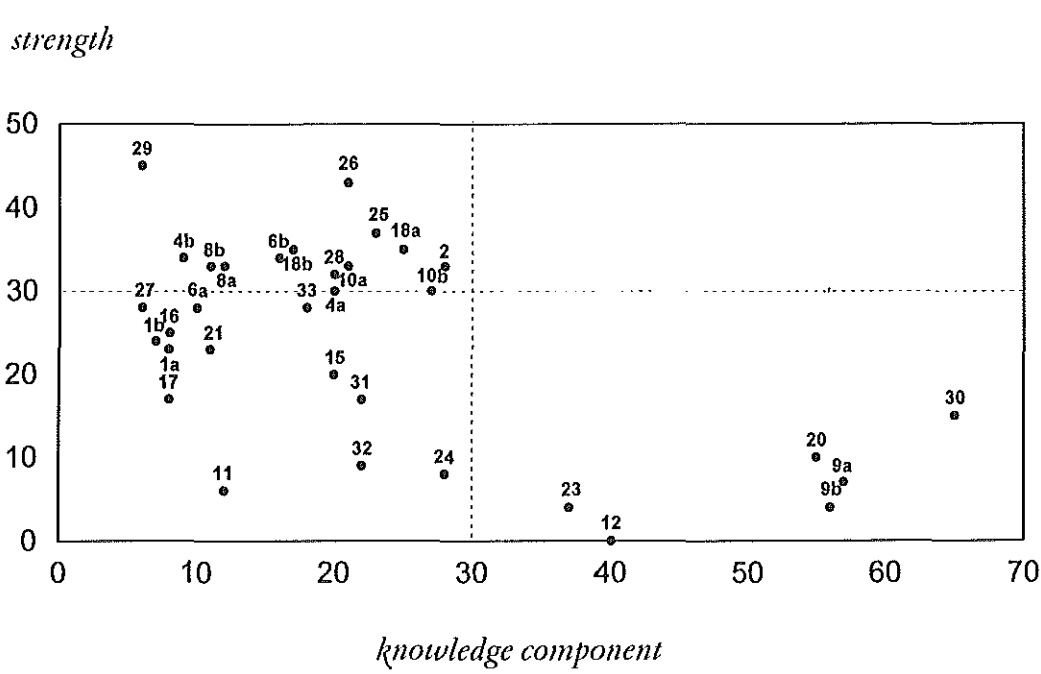
The overall results show that guidelines differ both in their content (knowledge versus practice oriented statements) as in their nature (more or less firm in guiding practice). These two dimensions are relevant for the foreseen impact of the guideline, either by appealing to professional learning versus change in practice or by the persuasiveness of the text.

Based on two dimensions that were explored, i.e. 'content' (with medical knowledge orientation versus practice orientation) and 'nature' (advice formulated in more or less absolute wordings), the sets of practice guidelines can be placed in a content/nature matrix as drawn in figure 1. Every practice guideline was placed in the matrix depending on the percentage of statements of the guideline on definitions or knowledge (horizontal axis) and the percentage of statements of the guideline formulated in absolute terms, both positive and negative (vertical axis).

[18] *Out of the 33 guidelines 6 guidelines are revised versions.*

FIGURE 1

Content/nature matrix of 33 practice guidelines



For the placement in the four cells of the matrix the following criteria have been used:

- *Content*: included in the knowledge cell when more than 30% of the statements in a guideline are categorised as definition or knowledge statements. All other included in the practice cell.
- *Nature*: included in the 'strong guidance' cell when more than 30% of the statements of a guideline that are formulated in behavioural terms are also formulated in absolute terms. All other are placed in the 'weak guidance' cell.

Based on this matrix three groups of guidelines can be distinguished:

- A group representing guidelines with a large amount of knowledge statements (>30%) and behavioural statements formulated in relatively weak terms (<30%

absolute terms). Guidelines in this group are osteoporosis, non-scrotal testis, diagnosis of the atopic syndrome, diagnosis of dementia, nutrition and allergy.

- A group representing guidelines with a small amount of knowledge statements and more practice-oriented statements but formulated in relatively weak terms; use of thrombocytes (a), blood transfusion, brain damage (a), diabetic foot (b), diabetic retinopathy, diagnosis of deep-venous thrombosis, sport and cardiac failure, stroke, follow-up colon polyps, otitis media, prevention herpes neonatorum, diagnosis lung carcinoma, treatment haemophilia and total hip replacement.
- A third group representing guidelines with relatively few knowledge statements and more practice oriented statements formulated to a large extent in absolute terms (>30%); prevention of bedsores, brain damage (b), use of thrombocytes (b), diabetic foot (a), traumatic lesion of the back, hypertension, cholesterol, prevention of deep-venous thrombosis, prevention of hospital infections and melanoma of the skin.

Although this grouping is somewhat artificial (especially the distinction between group 2 and 3), it helps to identify the differences between the practice guidelines. Especially the texts represented in group 1 seem to be of a different nature and although on neither of these five consensus texts an evaluation has taken place, personal experience shows that these texts are hardly used in hospitals for peer review activities. In retrospect they seem rather to reflect academic discussions than to provide guidance on practice. It should be observed that three topics deal with relatively vague disease concepts (syndromes), two are related to the field of immunology and two to the field of endocrinology. It is also interesting to observe that texts that are revised can 'improve' their relative position in the matrix (i.e. brain damage) or vice versa seem to 'get worse'.

7.9 FROM PRACTICE GUIDELINES TO REVIEW CRITERIA

As stated in the introduction of this chapter, to link (national) practice guidelines with (local) quality management the guidelines need to be reformulated as review criteria. As the initial reason to start with the CBO consensus programme was to meet the growing demand from peer review committees in hospitals for help with criteria setting on controversial clinical topics, it seems opportune to explore the relation between the two. In accordance with the definitions provided in 7.2, the purposes of guidelines and review criteria are different. Practice guidelines assist in clinical decision-making and review criteria are used in the assessment of care (FIELD AND LOHR, 1992). As Baker and Fraser have pointed out (1995) these crucial distinctions are not always clearly made, leading to confusion about the development and application of practice guidelines and review criteria in clinical practice. Especially in the seventies

and eighties, literature has appeared on the methods of developing criteria (E.G. DONABEDIAN 1980, 1986, GREENFIELD 1975) but at present, focus seems to be on the development of practice guidelines. Although, as reported earlier, eight CBO guidelines contained in total 15 statements on (their use for) peer review, it remains to be seen whether the programme as a whole has met the expectations formulated in 1982. The following aspects will be explored: comparison of guideline topics and topics for peer review, the methodology of the development of review criteria out of practice guidelines, the use of guidelines by peer review committees, the practice nature of the guidelines compared to the practice purposes of peer review.

Selection of topics

When the topics of the 33 consensus guidelines that were analysed are compared with the 23 topics selected during priority meetings and described in detail in chapter 6, there is a direct overlap for 5 out of 23 topics: anticoagulant policy (prevention of Deep-Venous Thrombosis, DVT), blood-transfusion policy, prevention and therapy of bedsores, infection control and policy for diabetes patients (guidelines on diabetic foot and retinopathy). Some topics have an indirect overlap (e.g. antibiotics therapy was mentioned as a subtopic in guidelines for total hip replacement) and for some topics expert reports have been produced by CBO but not with the help of the consensus methodology (resuscitation policy, ICU, CITO testing, urinary-tract catheterisation, parenteral feeding). On the other hand, there seem to be consensus guidelines on topics that are discussed within peer review committees but have not ended high on the priority lists e.g. diagnosis DVT, follow-up colon polyps, diagnosis lung carcinoma and lymph nodule of the neck. The overall official overlap appears to be limited. Consensus topics are chosen on a wider series of arguments than their use for peer review activities in hospitals. The call for guidance in decision-making, dominated by the voice of the scientific societies, seems only to a limited extent congruent with the call for assistance in reviewing practice by local peer review committees.

Methodological concerns

In 1995 the United States Agency for Health-care policy and Research issued a two-volume report on the use of clinical practice guidelines to evaluate quality of care (AHCPR 1995a, b). This report makes a distinction between medical review criteria, performance measures and standards of quality. The following definitions are provided:

- Medical review criteria are systematically developed statements that can be used to assess specific health-care decisions, services and outcomes (focus on evaluation of care processes).

- Performance measures are methods or instruments to estimate or monitor the extent to which the actions of a health-care practitioner or provider conform to the clinical practice guideline (focus on evaluation of the performance of individuals).
- Standards of quality are authoritative statements of (1) minimum level of acceptable performance or results, (2) excellent levels of performance or results, or (3) the range of acceptable performance of results.

Although in the traditional peer review approach as promoted by CBO since 1979, a distinction has been made between criteria and standards, similar to the definitions provided by the AHCPR, a distinction between review criteria and performance measures has never been made explicitly. The peer-review activities as described in chapter 6 are only indirectly focused on the individual performance of medical specialists; criteria relate to specific selected topics and are more similar to the review criteria as described by the AHCPR than to performance measures.

Apart from distinguishing the criterion, performance measure and standard, the ACHPR proposes a 18-step checklist for developing guideline-derived evaluation instruments. These 18 steps model the purpose, scope and implementation of the review process taking validity, generalizability and acceptance into account. The AHCPR seems very much focused on the rigour of instrument development and the problems related to placing value judgements on performance as reflected in documents such as medical records. Contrary to the interest in the validity of the data sources Baker and Fraser (1995) put in their proposed framework for linking guidelines and criteria the focus on the scientific basis of the criteria themselves. The methodological issues involved here are far from simple and studies performed on the adherence to guideline in The Netherlands (E.G. VAN EVERDINGEN 1988, KAASENBROOD 1995 AND DALHUYSEN ET AL. 1993, ZWAARD ET AL. 1995) demonstrate the difficulty of transforming decision support statements based on scientific evidence in evaluation instruments applicable on data sources that reflect real practice. Especially the merging of two involved valuation processes causes difficulties. On the one hand the evidence weighting in guideline development, resulting in advice phrased in words. On the other hand the standard setting for measurements, thus adding value judgements to the results. These two steps are often clouded or implicit. Studies so far have examined the use of practice guidelines from the traditional evaluative approach, trying to measure their impact by registering physician behaviour and health outcome. Very little effort has been made to study the actual use of practice guidelines from a more managerial perspective, trying to establish their use for planning and controlling of care processes by putting the evaluation in the context of process and outcome monitoring.

The use of practice guidelines by peer review committees in hospitals

No formal evaluation on the use of practice guidelines by peer review committees has been performed as yet. However, personal experience with both guideline development and peer review committees in Dutch hospitals provides the following picture. The use of practice guidelines differs from hospital to hospital and seems also dependent on the level of functioning of the peer-review committee. In chapter 2, five stages were proposed for the level of functioning of the peer-review committee (2.5.5) and the use of guidelines seems dependent on these stages. The five different steps identified in the process of implementing peer review in a hospital by the lines of the national programme for specialist peer review as promoted by CBO since 1979, are orientation, introduction, experimentation, embedding and broadening. Depending on the phase a peer-review committee is going through in a hospital, a practice guideline, developed nationally and sent to the committee, is more or less successful as an innovation. A general observation is that those peer-review committees that are still in their orientation phase try to focus very much on the existing practice guidelines without really discussing them. The CDC programme is mentioned in staff discussions as an important element of professional QA and something that should be read and used in the local hospital. The existence of the CBO and the CBO-CDC programme is brought forward as an argument to start with local peer-review activities and is also mentioned as a source of reference rather than actually used. Committees in the introduction phase tend to make an inventory of existing guidelines and use them as a source for selecting topics that could be discussed and studied in their own hospital. In this phase educational texts seem to meet the same interest as more practice oriented texts.

During the experimentation phase only those guidelines seem to be useful that really provide clear-cut answers. Especially for the legitimisation of draft-review criteria in medical staff discussions, it is essential that members of peer-review committees can refer to the consensus texts. In this phase the texts are again used as an important source of reference. When statements do not provide clear-cut answers and cannot be translated in review criteria without further discussion, specialists tend to react disappointed and expect CBO to provide answers. When not handled carefully, the CBO role can shift from supporter towards expert. This can create unrealistic expectations by medical staff and one way to avoid this is to bring the specialists concerned in contact with the real experts (with the additional bonus that the expert gets feedback on the guidelines he proposed). This is, however, more the exception than the rule. In general, the educational potential of the consensus text and accompanying syllabus can be better exploited. A danger of this approach, especially in this phase of the development of a peer-review committee, is that discussions seem to keep on focusing on the scientific debate underlying the review criteria. The consensus debate that took place nationally is more or less

repeated on the local level with the danger that remaining blank spots in the argumentation are taken up as a reason not to proceed with the formulation of review criteria, let alone the execution of a real audit study. In this stage the danger exists that the peer-review committees remain debating clubs and the medical staff will postpone real activities until the final truth comes from the national sources.

The danger of 'scientifying' the review criteria debate in a hospital seems to be smaller when the process of peer review is already embedded. In those hospitals, the agenda of the peer-review committee is not determined by outside activities as consensus conferences, but consists of an ongoing line of activities related to different problems selected locally. In this situation consensus guidelines can be an additional source of information. Especially when they are systematically put on the agenda of the peer-review committee and distributed to all physicians to whom it might concern. The practice guidelines thus meet their purpose as being an additional supportive tool to peer review activities. The hospitals where such a structural approach towards consensus texts exist are usually also the ones that give feedback to the organisers and often have one or more members of the medical staff that served once in a national working group. The few committees in Dutch hospitals that seem to have entered the broadening phase, meaning that the process of peer review has gradually expanded to other hospital domains than medical specialist care, use consensus texts as the previous group. Here the criticism is heard that the texts are too clinically oriented and a need is felt for practice guidelines that cover more organisational issues, such as the organisation of preoperative assessment and managing of waiting times at out-patient departments.

The practice nature of practice guidelines and review criteria

Although in the majority of hospitals guidelines are not translated in review criteria, but are an educational source as well as an external incentive to reflect on practice, the hospitals that try to use them for the formulation of review criteria are faced with methodological problems and a series of managerial problems. As discussed in chapter 4 and 5, the peer review committee is a committee of the medical staff and its focus is consequently on multi-specialist clinical problems within the domain of the collective group of specialists, taking existing perceived problems as the starting point of activities. There is often a tension between the problem orientation taken by the peer review committee and the process orientation taken in many a guideline. The limitation of the peer review committee is that it is usually not involved in the redesigning of care processes. It tends to analyse problems that exist in existing processes, especially related to questionable medical decision-making ('what' problems) and problematic interactions at the knots of separate specialist working processes ('how' problems). Its aim is to evaluate practice on specific chosen topics without having the proper managerial influence to implement necessary improvements. Some

guidelines are congruent with this approach (addressing a specific clinical decision-making problem or logistic issues that fall within the scope of the peer review committee) but the majority addresses decision-making processes and care processes that are of a wider nature than the scope of the peer review committee. The majority of consensus guidelines is addressing questions that explore the successive actions for diagnosis, treatment and evaluation. The persons responsible for these processes are usually confined to one or only a few specialties in the hospital. For many a guideline the peer review committee will consider the implementation the responsibility of the relevant partnerships. In summary, even if the peer review committee has reached a high level of maturation, their present managerial embedding (medical staff committee with limited executive power) and problem-based methodology limits their possibilities to use the existing practice guidelines for review activities. Apart from more methodological scrutiny in transforming practice guidelines into review criteria (see AHCPR 1995a, b) a more appropriate managerial recipient in the hospital organisation seems necessary to use practice guidelines more productively for quality management of medical specialist care. At the same time it is noteworthy that the content of the practice guidelines as formulated through the CBO consensus programme, does only to a small extent cover the existing problems as identified by clinicians through priority meetings as described in chapter 6. Either the guidelines developed on national level are taking the peer review committee seriously as the recipient and vehicle of the implementation, or practice guidelines should be targeted more specifically to the relevant actors in the hospitals that have the managerial possibilities to implement the guideline. Perhaps this would ask for two different approaches. One type of practice guidelines based on the needs and possibilities of peer-review committees, with sufficient anticipation on the methodological problems of transforming guidelines into review criteria. And another sort of guidelines, more in line with the present programme, that are targeted towards a broader audience, but with a specific implementation strategy attached to every guideline, based on the management characteristics of the context of implementation. A better fit between the present national programme for guideline development and the existing mechanisms for quality management of medical specialist care (such as peer review activities) is necessary to enhance the impact on change in behaviour.

7.10 REFLECTIONS ON THE USE OF CBO PRACTICE GUIDELINES FOR QUALITY MANAGEMENT FROM THE PERSPECTIVE OF PROFESSIONALISATION THEORY

So far several remarks have been made about the nature and development of practice guidelines that can easily be understood from the perspective of professionalisation

theory. In this paragraph some general points are highlighted to illustrate that guideline development, as peer review, is in essence an attempt of the medical profession to safeguard its own knowledge and practice domain through achieving intraprofessional scrutiny in practice as well as extraprofessional adjustment to needs and demands of patients, managers, financiers and politicians. Especially the use of national consensus guidelines as a mechanism for intraprofessional fine-tuning and standardisation of individual practice seems interesting.

Although the assignment of specific professional responsibilities is as a rule not included in consensus texts, 5% of the statements deal with this issue. As was reported in the text analysis (7.8) in several consensus conferences the establishing of professional domains was clearly manifested in the discussion. In some conferences there was a conflict between specialties e.g. neurosurgeons versus neurologists (traumatic lesion of the back). In other conferences it was a conflict between specialists and general practitioners (e.g. GPs versus ophthalmologists in diabetic retinopathy and versus orthopaedic surgeons in Total Hip Replacement). Several conferences had to deal with the conflict of professional interests of specialists and allied health professions, e.g. role of physiotherapists in THP, role of dieticians in hypercholesterolemia, role of hospital hygienists in hospital infection control). And also several conferences were characterised by the physician-nurse dichotomy, e.g. conferences on prevention and therapy of bedsores. Consensus conferences seem to be perceived by medical specialties as an instrument to settle intraprofessional debates in a rational and scientific way. New and emerging specialties (such as sports medicine) see it as an instrument to enhance their specialist status. At the same time the conferences, as a social forum, attract participation from professions that are directly related to the specialists such as general practitioners, allied health professions and nurses. These interprofessional dynamics manifest themselves during the whole process of consensus development from the installation of the working group of experts (letters of groups that want to be represented) till the consensus meeting itself and the formulation of the final text (oral and written amendments made on behalf of a professional group). Thus the forum function of consensus meetings is not only a scientific forum (where specialists find themselves comfortable) but also an interprofessional forum where agreements seem to be negotiated on interprofessional boundaries as well as interprofessional co-operation. The fact that the consensus process is used for this purpose demonstrates that parties seem to seek a forum for their interaction. Only very seldom a professional group refuses to participate in the discussions. It should also be noted that since 1987 the general practitioners have started their own programme for guideline development under the aegis of the Dutch College of General Practitioners (NHG) and since 1991 the Nursing Scientific Council of CBO has been organising consensus conferences for nurses. Although the methodology of guideline development differs among the different programmes, the profiling as an act of professional development is evident.

Apart from being a mechanism for intraprofessional and interprofessional debates, the model of guideline development through consensus conferences seems to have met the approval of managers, patients, financiers and politicians. As explained in the paragraph on reasons for guideline development (7.3), each of these groups perceives advantages in the rationalistic process of guideline development and wants to use them for their own purposes. Managers see the rationalisation of care processes through guidelines as an instrument for strengthening control on professional induced processes. The rationalisation strategies of process management and guideline development seem to appeal to the same positivistic notions. Input of patient organisations and financiers in the CBO consensus development process is still limited but has been realised in several concrete cases (e.g. diabetes, haemophilia). Politicians express the same favourable opinion on guideline development given the need for both goal setting and efficiency improvement in health care (e.g. Reaction of government on the proposals of the Biesheuvel Committee and the Platform on Curative Care, 1995). From a professionalisation perspective, guidelines in the nineties are one of the main instruments of the medical profession to moderate both its interprofessional debates as well as its debates on accountability with other health-care actors. Whether guidelines actually guide practice seems sometimes less important than the forum function for professionalisation.

7.11 REFLECTIONS ON THE IMPACT OF THE DEVELOPMENT OF PRACTICE GUIDELINES THROUGH THE CBO-CDC PROGRAMME TO QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE FROM THE PERSPECTIVE OF INNOVATION THEORY

In the previous paragraphs the managerial profile of the 33 sets of practice guidelines as formulated through the CBO-consensus methodology have been assessed using a framework for analysis that is based on management theory. In addition some reflections on the process of guideline development have been offered from the perspective of professionalisation theory. In this paragraph the effectiveness of the consensus guidelines is discussed from the perspective of innovation theory. The discussion follows the different items of the framework for analysis constructed in chapter 2 (2.6). The eight points of this framework (IV a-h) will be dealt with successively in a descriptive way based on empirical evidence. The relevance of using Rogers' innovation-diffusion theory for explaining the implementation of guidelines has recently been demonstrated by Grilli and Lomas (1994). They studied the relation between 143 practice recommendations and their compliance as reported in 23 studies by looking at the complexity, trainability and observability of the recommendations.

They conclude that the characteristics of the clinical recommendations (practice guidelines) could account for no more than 47% of the observed variability in compliance rates. The target area of practice and the complexity and trainability of the recommended procedures appeared to be useful, if partial, predictors of the level of compliance with a practice guideline. When this finding is combined with the findings of Grimshaw et al. (1995) who stress in their literature review the importance of implementation strategies which are nearer the end user and integrated into the process of health-care delivery, the elements identified by Rogers all seem to have empirical backing when applied in the field of guideline implementation in medicine.

7.11.1 The characteristics of the innovation

In accordance with the innovation-diffusion theory of Rogers, variables of both the innovation itself and the adopting target group determine the extent of diffusion and implementation.

With respect to important characteristics of the innovation, Rogers identifies: relative advantage, compatibility, complexity, trainability and observability.

When one takes the CBO-practice guidelines as the innovation, the following observations can be made:

Relative advantage

Topics dealt with in practice guidelines are seldom dealing with issues that would result in major health benefits, obvious for everybody. The benefit in terms of effect on mortality or morbidity is seldom so evident that it equals the disadvantages that go with changing practice. Topics for Dutch consensus conferences are chosen because they are controversial; therefore the relative advantage is limited beforehand.

Relative advantages in terms of cost and professional status will without doubt play a role. However, the cost-effectiveness issues raised in the guidelines are mainly focusing on the cost effects on macro level. Thus the cost issue is used tactically as an argument in favour of the topic under discussion (i.e. Total Hip Replacement, Diabetic Retinopathy). This does not necessarily hold any relevance for the cost consequences at the meso level and micro level. Professional status may be an important incentive to participate in consensus working groups (see 7.10). The relative advantage for the profession as a whole is in many cases not congruent with the relative advantage of the individual specialist who has to change.

The results of a process evaluation described in the following table (table 3), especially the last two columns, give an impression of the reported extent to which practice guidelines were considered as a serious alternative for present practice by conference participants (VAN EVERDINGEN, KLAZINGA, SCHERER, CASPARIE, 1990).

TABLE 3

Results of a post-conference questionnaire, distributed among 7855 and filled out by 4112 participants of 22 consensus conferences between 1985 and 1991 in The Netherlands

Percentages

year	*programme*	*number of participants*	*number of respondents*	*positive opinion on background information*	*positive opinion on usefulness*	*positive opinion on influence of public*	*working in accordance with guidelines**	*willingness to change behaviour***
1985	Prevention of bedsores	964	675	79	78	72	--	--
	Osteoporosis		195	39	74	85	43	--
	Diabetic foot problems	374	99	91	87	74	57	76 (26)
1986	Diagnosis of deep-venous thrombosis	279	63	92	87	71	45	65 (13)
	Nonscrotal testis	286	128	96	81	64	60	69 (37)
	Treatment of bedsores	1098	566	86	86	74	58	81 (192)
1987	Prevention of herpes neonatorum	199	107	92	95	80	39	88 (37)
	Haemophilia	111	58	86	90	82	89	33 (1)
	Follow-up colon polyps	62	33	91	94	91	76	100 (8)
	Cholesterol	408	237	79	84	73	57	71 (40)
	Suspect lymph nodules in the neck	148	68	93	76	92	75	79 (11)
	Diagnosis of atopic syndrome	203	111	85	58	61	74	59 (13)
	Follow-up of colorectal cancer	270	110	94	74	58	57	70 (28)
1988	Diagnosis of dementia	480	289	91	88	52	65	72 (63)
	Sports and cardiac pathologies	300	183	76	75	68	60	61 (34)
1989	Prevention of hospital infections	322	216	92	95	86	49	69 (71)
1990	Diagnostics for lung carcinoma	243	109	94	72	76	71	58 (11)
	Hypertension	497	236	89	85	52	68	61 (27)
	Acute otitis media	86	53	88	92	74	84	60 (6)
	Nutrition and allergy	486	197	74	76	55	31	68 (42)
1991	Cerebrovascular accident	700	447	76	61	56	56	48 (55)
	Diabetic retinopathy	144	88	92	90	77	58	69 (11)

** filled in by participants for whom this question was relevant*
*** the percentages between brackets and the absolute numbers are given*

In general, the meetings are considered to be useful. However, the question on willingness to change was only filled out by a limited number of participants and reflects the still existing reservations of those who have been extensively exposed by arguments to change their practice. The consensus conferences on prevention and therapy of bedsores, herpes neonatorum and follow-up of colon polyps seem to have been most successful in convincing their respective audiences. Relative advantage seems an important characteristic for a successful implementation of an innovation.

As Greco and Eisenberg have stated:

> *"Theories of change and common sense suggest that physicians will oppose changes they perceive as threatening to their livelihood, self-esteem, sense of competence, or autonomy. Thus interventions that decrease physicians' decision-making authority, reduce their income, challenge their professional judgements, or appear to compromise patient care and more likely to fail."*
> (GRECO AND EISENBERG, 1993:1272)

Complexity

Practice guidelines are aimed at reducing the complexity of medicine. Therefore they are usually perceived as a useful tool that serves educational as well as operational purposes. The extent to which knowledge statements (19%) and statements on definitions (5%) seem to be included in the CBO practice guidelines illustrates this notion. In general, the audience of consensus meetings is positive about the extent to which consensus syllabus and practice guidelines are easy to understand (table 3). Studies performed to study the awareness and knowledge about the practice guidelines among the target group show that complexity of the texts does not seem to be a problem and that, rather the reverse, physicians choose to read them because they tend to summarise information on complex topics they would otherwise not oversee (VAN EVERDINGEN 1988, GROL, 1990).

Compatibility

The composition of working groups is chosen in such a way that there is an equilibrium between the 'scientists' and the 'practitioners'. Practice guidelines will only be considered for implementation when they are to a large extent compatible with existing medical practice. This point gets growing attention in the consensus procedure and during the last five years several studies have been performed to assess the existing practice before starting to discuss practice guidelines (e.g. infection control in hospitals, diagnosis pulmonary embolus, CVA). These notions helped to draw up a text that does not only reflect the scientific evidence but also addresses barriers in practice. Thus practice guidelines are compatible with existing clinical practice and the assumption is that this will improve their implementation. In general, the incompatibilities of implementing a guideline on micro level are only marginally addressed during the consensus conference with the exception of a study of hand washing (GROL ET AL. 1990). In a study in the USA on physicians perceptions on consensus reports Hill and Weisman (1991) found that the strongest predictor of congruent practice behaviour a year after a conference report was congruent practice behaviour just prior to the report's release, and the second strongest predictor was perceived influence of the report's sources/ sponsors. A similar UK study of attitudes

and behaviour towards clinical guidelines among 268 clinicians (MANSFIELD, 1996) concludes that the decision to use a guideline was based on the perceived value of each guideline and was influenced by other clinicians' behaviour. Similar findings are reported about opinions of internists on guidelines (TUNIS ET AL., 1994). These findings suggest that for a guideline to be effective, the core message must strike the right balance between new ideas and common practice.

Triability

The extent to which practitioners can really implement guidelines in their own practice depends largely on the extent to which the guidelines are actually written in terms of practice behaviour. The profiles of the CBO practice guidelines as discussed earlier and summarised in table 2 (see page 298) help to understand the triability of the different sets of practice guidelines. The guideline on the prevention of bedsores, including the advice to apply a risk score, is a good example of a guideline that gave rise to a lot of local 'experimentation' (VAN EVERDINGEN 1988, KLAZINGA, GIEBING 1994).

Observability

The possibilities to see the effect of improvement in ones own practice when implementing practice guidelines are limited. The recommendations in consensus texts are usually based on large scientific studies and the pure fact that they are the topic of a consensus meeting shows that results were not clear beforehand. The size of an individual practice in terms of numbers of patients is usually too small to see the effect of an altered practice mode within such a time frame that is can be recognised as an improvement. Usually improvements in terms of better management of care, reflected in reduced uncertainty and more systematic evaluation, are easier to measure than actual effects in health outcome of the patient population. In this respect practice guidelines that address more operational issues like blood transfusion, infection prevention and prevention of bedsores, show to be more easily implemented to 'trial' activities in hospitals than practice guidelines on cholesterol and non scrotal-testis. However, for herpes neonatorum the possible effect of the guideline has been made observable (VAN EVERDINGEN ET AL. 1993).

7.11.2 The decision-making process

The decision-making processes during the meetings of the working groups have already been discussed in previous paragraphs (7.5, 7.6). This paragraph focuses on the decision-making process during the consensus conference. The decision-making process during the consensus conference is based on the active input of the audience. The results of a process evaluation by means of a questionnaire among conference

participants (table 3, page 309) show that on average 70% of the audience holds the opinion that they had enough influence on the formulation of the final texts. These results are based on the answers of 4112 participants of 22 CDCs held between 1985 and 1991 (52% of the total number of conference participants). The median of the answers over the 22 conferences is 72% with a range varying between 43% and 92%. For 10 conferences the positive score was lower than 75%, in one case even below 50% (Osteoporosis). Although the generalizability of these results is limited by the overall response rate (52%, usually persons who stayed till the end of the conference) they are an indication that on average the public is satisfied with their influence on the texts. In reality, however, the number of participants entering the debate with the experts is usually limited to persons who are also experts but were not directly represented in the working group. The decision-making process during the conference is to a large extent depending on the capacities of the chairman. If the chairman has the authority to stand above the debating parties and is able to conduct the debate in a fair way, conclusions can be reached. Over the years chairmen have lifted up to this task, but in some instances the decision-making process during the conference went astray when the chairman took a personal stand rather than facilitating the expression of different opinions (i.e. thyroid nodule). Time seems always a crucial factor in ending the debate. Prolonging meetings is not promoted because experience shows that part of the audience will leave the meeting before the final conclusions are reached. Therefore the meeting should end in time with the summing up by the chairman of the agreements reached. In several cases the public was encouraged to react in writing on some controversial statements before they were finalised during the last meeting of the working group one month after the conference.

Although discussions differ among conferences in rationale (scientific versus professional interests) and tone (academic debate versus flamboyant rhetoric), all conferences held under the aegis of CBO so far have attracted a substantive audience that participated actively in the discussions.

7.11.3 The communication channels

An important aspect of the diffusion of innovations are the communication channels used to 'spread the news'. When the practice guidelines as developed by CBO through the consensus methodology are considered as the innovation, a series of communication channels within the medical profession have been used to diffuse the message. The few evaluations that have been performed among the target group (blood transfusion 1982, diagnoses deep-venous thrombosis 1986) show that awareness about the existence of texts is good, knowledge about the exact content is more limited (VAN EVERDINGEN 1988).

In general, those communication channels are chosen that seem to be concordant with other information flows about new scientific knowledge such as the Dutch Medical Journal (*Nederlands Tijdschrift voor Geneeskunde*). Another channel that is used, are the links that exist between CBO, as the national support organisation for peer review in hospitals, and local peer-review committees. Communication strategies are, however, of a haphazard nature and are not developed, implemented and evaluated explicitly. Over the last couple of years the necessity to formulate more explicit implementation strategies already during the process of consensus development has arisen. The inclusion of a specific communication plan seems to be an indispensable part of such a strategy. Since 1993 the scientific council of CBO has endorsed plans to develop explicit implementation strategies for practice guidelines instead of organising more and more conferences. It seems important to recognise the findings in literature (E.G. GRIMSHAW ET AL. 1995) that mailing strategies, even if executed in accordance with marketing principles, are by themselves insufficient in changing practice behaviour. To quote Greco and Eisenberg:

> *"Physicians are slow to change their behaviour until they perceive a need to change, and this perception of need is more likely to occur in response to social than informational influences. Combination of information strategies with the active and explicit use of opinion leaders seems more promising."*
> (GRECO AND EISENBERG, 1993:1272)

7.11.4 The nature of the social systems

The whole process of guideline formulation and implementation of practice guidelines developed through consensus conferences takes place within the realm of the medical profession. Guideline development is recognised as an essential function of the social system and a necessary complement of quality assurance policies of medical professional organisations (LSV 1995, European Federation of Medical Associations 1993). In chapter 3 and 4 the development of quality management of specialised care within the professional context was discussed in detail. When the consensus development programme started in 1982 it was considered a complementary activity to the already existing national programme on peer review. By the format (scientific debate) and the commitment of scientific societies the whole process could be perceived as a professional activity. The perception that a national practice guideline development programme is before all a professional activity seems to have been crucial in the acceptance and the continuation of the programme (CASPARIE, 1991). The fact that all experts participate in the working groups on a voluntary bases without any reimbursement although it costs them a considerable amount of time, is an illustration of the fact that the CDC programme seems to have esteem and participating in a working

group is considered a professional honour. The number of persons refusing to participate in a working group has been extremely low. Discussions on the financing of CBO, that gave rise for speculation of greater influence on the process by government and insurance companies (1989-'93) created tensions between the scientific societies, represented in the scientific council, the national specialist organisation and the board of trustees of CBO.

As long as the practice guidelines are part and parcel of the professional social system, their implementation will be positively influenced by peer pressure. The fact that renown scholars and leading specialists participate in the guideline development process, facilitates the credibility and acceptability of the process. Although, like in all other professions, individual opinions will be respected, peer pressure, especially in areas of great scientific complexity resulting in physician uncertainty, will have its effect. Guideline development will serve as a tool for the profession to manage its own affairs, thus ensuring that autonomy is used correctly and providing means for accountability to the public at large.

7.11.5 The role of change agents and opinion leaders

Different change agents and opinion leaders can be identified in the process of development and implementation of practice guidelines. The key persons (respected peers and scholars) that take part in the working group can be considered as such. But also CBO staff that spreads the message in hospitals, and members of peer-review committees that take the trouble in attending conferences and reporting about it in their medical staff, can be considered as change agents. For the improvement of the implementation strategies it seems advisable to identify and use change agents in combination with opinion leaders in a more systematic way. Compared to the focus on publication of texts, more focus seems to be needed on specific confrontations between change agents and opinion leaders. Although the pharmaceutical industry has been applying these strategies for a long time, they are hardly ever used explicitly for the implementation of practice guidelines (KAASENBROOD EN KLAZINGA, 1993, KAASENBROOD 1995).

7.11.6 Other innovations and organisational change

The fact that the CBO-CDC programme still exists and is even expanding after 14 years illustrates that the concept of formulating practice guidelines on a national level is still considered valuable and in line with general developments in specialised medicine. In this respect the innovation 'practice guideline' can role on the waves of rationalisation in medicine (i.e. evidence-based medicine), need for professional control to ascertain professional autonomy and need for accountability both in terms of costs and ethics.

When the word 'protocol' was discussed in the Dutch medical literature of the early seventies it was usually responded with letters claiming professional autonomy and opposing cookbook medicine. The general opinion on the use of protocols, practice guidelines and review criteria has gradually changed over the years, as is reflected in the policies on quality of the Dutch Specialist Association (I.E. LSV REPORT ON QUALITY OF CARE 1995) and the Royal Dutch Medical Association as discussed in chapter 3 and 4. The rational approach underlying guideline development seems congruent with the rationalisation strategies of both management and government. Management development that focuses on quality systems (see chapter 8) as well as a health policy that builds on marketisation and provider/insurer intertwining (see chapter 3) are in favour of development of practice guidelines that make medical practice explicit.

7.11.7 The development of the innovation over time in accordance with different phases

In the paragraph on the relation between practice guidelines and review criteria (7.9) it has already been explained that several structural problems exist in the use of the CBO guidelines for peer review. The relation between peer review committees and practice guidelines, although strong in policy rhetoric, is rather weak in practice. Many peer-review committees do not reach the stage of actually transforming guidelines into review criteria. Furthermore, the problem-oriented methodology of peer review committees and their restricted managerial embedding runs counter with the managerial characteristics of the majority of guidelines.

7.11.8 The innovation strategy

In accordance with the literature reviewed in chapter 2 (2.5.6), the following four types of implementation strategies can be identified:

- facilitative;
- re-educative;
- normative re-educative;
- power.

The analysis on the profiles of the different sets of practice guidelines has already revealed something about their content and nature and this determines to a large extent the implementation strategies that can be applied. The facilitative strategy is implied by the attempts to formulate practice guidelines in terms of practice behaviour. Attempts are made to make the texts easy readable and understandable. For the implementation in practice, existing communication channels, social systems and professional infrastructure are used. As a rule, no additional bonuses are attached to implementing the practice guideline but indirect bonuses are implicit such as profes-

sional recognition within the context of professional quality assurance activities, and financial recognition within the context of the future contractual model between specialists and health insurers. Texts are never solely re-educative although many a syllabus could be seen as such. The implementation strategies could perhaps best be characterised as re-educative normative; practice guidelines contain a large amount of knowledge statements meant to re-educate physicians, and are by their advisory nature more or less normative (see also figure 1, page 299).

Status associated with scientific knowledge and professional esteem are the ingredients that carry the practice guidelines towards their implementation. A real power strategy has never been applied. Although several times discussions have been held and articles have appeared (ROSCAM ABBING 1991, WIJMEN 1992, KISTEMAKER 1995) on the legal status of practice guidelines and their role in law speaking of professional law speaking committees. In this respect legal constraints, as prevailing in American medicine and resulting in defensive medicine, play a less important role in the Dutch medical culture. Hardly ever has up to now a financier declared that he would only reimburse practices that are in accordance with guidelines; such a practice would have been possible, based on the practice guidelines on melanoma of the skin (banning biopsy taking by dermatologists). One of the few examples to the contrary is the use the Sick Fund Council has made of the guidelines on hypercholesterolemia (restricting reimbursement of pharmaceutical therapy for non-indicated patients).

A further differentiation of implementation strategies that is based on the actual character of the practice guidelines, the need for change and the expected receptiveness of the target group is one of the challenges of the future. The professional quality management context will, however, require only re-educative normative implementation strategies. More coercion runs counter with the elements identified so far as determining the effectiveness of practice guidelines in changing physician performance.

7.12 CONCLUDING REMARKS

The aim of this chapter has been to explore the nature and development of practice guidelines and their contribution to quality management of medical specialist care. More specifically the relation between the CBO consensus development programme and the use of review criteria for peer review activities in Dutch hospitals has been assessed. On the basis of the performed analysis the following conclusions can be drawn:

- The CBO consensus programme fulfils an important function in the professionalisation process of medical specialists on group level. It constitutes the forum for

interprofessional debate as well as for debate between the profession and other actors in the health-care system.

- The scientific scrutiny of the CBO consensus programme seems rather weak compared with other programmes in the USA (AHCPR) and France (ANDEM; practice guidelines). This is partly due to the focus on the group dynamics but can also be interpreted as insufficient innovation within the programme itself.
- The 'managerial profile' of the practice guidelines produced so far varies; some texts are 'state-of-the-art' essays but provide little guidance. Other texts are better in providing guidance but the interpretation of the texts depends to a large extent on sensitivity for semantic qualifiers.
- Although on paper the guideline programme is supposed to support the development of review criteria in hospitals, in reality the topic choice and nature of the guidelines is only to a limited extent targeted at peer-review committees.
- Apart from the methodological problems of translating guidelines into review criteria, the managerial embedding of peer-review committees in the hospital organisation is such that implementation of guidelines for monitoring functions is hampered. This is even strengthened by the fact that guidelines tend to be process-oriented where peer-review committees are primarily problem-oriented.
- Innovation-diffusion theory provides an useful theoretical framework for understanding and managing the implementation of practice guidelines. Reflections based on this theory lead to the conclusion that the guideline process should be better targeted with an improved goal-method effect scheme and more optimal use of the social system that enhances change, while at the same time taking better notice of the elements of existing medical practice in hospitals and health system design that hamper change.
- The complexity of achieving behavioural change among medical specialists through practice guidelines asks for a more refined programme of practice guideline development. A consistent goal-method effect scheme does imply separate methodologies and strategies for practice guideline development and implementation aimed at consensus guidelines, guidelines to be used by peer review committees, general guidelines developed in accordance with the AHCPR methodology, guidelines restricted to a specific specialty and guidelines with a broader social focus.

APPENDIX 1

Results of the text analysis of 33 consensus guidelines

	1		1b		2		4		4b		6		6b		8		8b
total number of statements scored	39	..%	30	..%	39	..%	20	..%	23	..%	40	..%	44	..%	33	..%	36
effectiveness					2	5,13									1	3,03	1
satisfaction															1	3,03	1
efficiency	1	2,56													1	3,03	2
costs															1	3,03	1
ethics																	
definition					3	7,69	1	5,00	1	4,35	1	2,50	1	2,27	1	3,03	1
knowledge	3	7,69	2	6,6	11	28,21	4	20,00	2	8,70	4	10,00	7	15,91	4	12,12	4
what not to do (advice)	2	5,13	2	6,6			2	10,00	2	8,70	4	10,00	4	9,09	1	3,03	1
what not to do (absolute)	3	7,69	2	6,6	2	5,13	1	5,0	1	4,35	3	7,50	3	6,82	3	9,09	4
what to do (advice)	7	17,95	5	17	4	10,26	2	10,00	3	13,04	10	25,00	7	15,91	6	18,18	5
what to do (absolute)	6	15,38	5	17	11	28,21	5	25,00	7	30,43	8	20,00	12	27,27	8	24,24	8
dissensus			1	3,3					1	4,35	1	2,50	1	2,27			
research																	
who					2	5,13	1	5,00	1	4,35					3	9,09	5
where							1	5,00	1	4,35	1	2,50	1	2,27			
when	5	12,82	3	10	4	10,26	2	10,00	2	8,70	1	2,50	1	2,27			
information	3	7,69	2	6,6			1	5,00	1	4,35	2	5,00	2	4,55	2	6,06	1
local guidelines	3	7,69	2	6,6					1	4,35	1	2,50	1	2,27	1	3,03	1
consultation	4	10,26	3	10							2	5,00	2	4,55			1
feedback/audit	2	5,13	3	10							2	5,00	2	4,55			

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APPENDIX 1 – CONTINUED

	9		9b		10		10b		11		12		15		16		17	
total number of statements scored	44	..%	54	..%	34	..%	37	..%	17	..%	15	..%	15	..%	36	..%	12	..%
effectiveness	1	2,27	1	1,85	1	2,94	3	8,11			1	6,67						
satisfaction																		
efficiency															1	2,78		
costs									1	5,88					3	8,33		
ethics															1	2,78		
definition	3	6,82	3	5,56	1	2,94	1	2,70	1	5,88	2	13,33						
knowledge	22	50,00	27	50,00	6	17,65	9	24,32	1	5,88	4	26,67	3	20,00	3	8,33	1	8,33
what not to do (advice)	1	2,27	3	5,56	1	2,94	1	2,70	2	11,76	1	6,67	2	13,33			1	8,33
what not to do (absolute)	2	4,55	1	1,85	2	5,88	1	2,70							3	8,33		
what to do (advice)	5	11,36	11	20,37	9	26,47	7	18,92	5	29,41	1	6,67	4	26,67	6	16,67	2	16,67
what to do (absolute)	1	2,27	1	1,85	9	26,47	10	27,03	1	5,88			3	20,00	6	16,67	2	16,67
dissensus	2	4,55	4	7,41					4	23,53	1	6,67	1	6,67				
research			2	3,70													1	8,33
who	3	6,82	1	1,85	2	5,88	1	2,70	1	5,88	2	13,33	1	6,67			2	16,67
where	3	6,82			1	2,94	1	2,70							5	13,89		
when							1	2,70							2	5,56		
information											2	13,33			2	5,56	3	25,00
local guidelines															2	5,56		
consultation					1	2,94	1	2,70	1	5,88			1	6,67	2	5,56		
feedback/audit					1	2,94	1	2,70			1	6,67						

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APPENDIX 1 -- CONTINUED

	18		18b		20		21		23		24		25		26		27
total number of statements scored	20	..%	23	..%	20	..%	35	..%	27	..%	25	..%	22	..%	21	..%	18
effectiveness			2	8,70					1	3,70							
satisfaction																	
efficiency																	
costs	1	5,00					2	5,71					1	4,55			
ethics					1	5,00			1	3,70							
definition	1	5,00	1	4,35	5	25,00			6	22,22	3	12,00			2	9,52	
knowledge	4	20,00	3	13,04	6	30,00	4	11,43	4	14,81	4	16,00	5	22,73	2	9,52	1
what not to do (advice)	2	10,00	1	4,35	2	10,00	1	2,86	1	3,70	1	4,00	1	4,55			3
what not to do (absolute)	1	5,00	3	13,04	2	10,00							3	13,64	2	9,52	2
what to do (advice)	3	15,00	6	26,09	2	10,00	10	28,57	7	25,93	4	16,00	6	27,27	1	4,76	4
what to do (absolute)	6	30,00	5	21,74			8	22,86	1	3,70	2	8,00	5	22,73	7	33,33	3
dissensus	1	5,00			1	5,00	1	2,86	1	3,70							
research																	
who					1	5,00	4	11,43	3	11,11	4	16,00			1	4,76	1
where																	2
when			1	4,35			1	2,86			1	4,00					
information	1	5,00	1	4,35			2	5,71			3	12,00	1	4,55	1	4,76	2
local guidelines									1	3,70					3	14,29	
consultation									1	3,70	1	4,00					
feedback/audit							2	5,71							2	9,52	

.../....

APPENDIX 1 – CONTINUED

	28		29		30		31		32		33	
total number of statements scored	35	..%	18	..%	20	..%	18	..%	32	..%	22	..%
effectiveness	2	5,71	1	5,56					1	3,12	1	4,55
satisfaction									1	3,12		
efficiency												
costs											1	4,55
ethics												
definition	2	5,71	1	5,56	3	15,00			1	3,12		
knowledge	5	14,29			10	50,00	4	22,22	6	18,75	4	18,18
what not to do (advice)	2	5,71	2	11,11	1	5,00	1	5,56	2	6,25		
what not to do (absolute)	3	8,57	5	27,78	2	10,00	1	5,56			1	4,55
what to do (advice)	5	14,29	1	5,56	3	15,00	6	33,33	8	25,00		
what to do (absolute)	8	22,86	3	16,67	1	5,00	2	11,11	3	9,37	5	22,73
dissensus	1	2,86	2	11,11			3	16,67	1	3,12	2	9,09
research												
who	2	5,71					1	5,56	1	3,12	3	13,64
where	1	2,86	1	5,56					1	3,12	1	4,55
when	2	5,71	1	5,56					1	3,12	4	18,18
information	1	2,86	1	5,56								
local guidelines									1	3,12		
consultation									3	9,37		
feedback/audit	1	2,86							1	3,12		

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Chapter 8
Towards quality systems in hospitals
Transition of quality management of medical specialist care from a professional to an organisational perspective

8.1 INTRODUCTION

In the previous chapters quality management of medical specialist care has been discussed from the perspective of the medical specialist. The way the profession has organised its quality assurance activities outside (chapter 4) and inside (chapter 5) the hospital has been taken as the starting point for analysis. Also in chapter 6 (priority meetings and peer review studies) and 7 (practice guidelines) the focus has been on empirical material directly related to professional activities. In this concluding chapter the previous analyses will be complemented with an analysis from the perspective of the hospital organisation. In chapter 5 the relation between medical specialists and hospital management has already been discussed in detail and the importance of the medical staff, partnerships and house staff has been stressed (5.2). This chapter will explore how these professional structures and the quality-management activities that are generated in it, relate to the overall quality policy of hospital management and to attempts to introduce quality management of hospital care. First the nature of quality management from a hospital perspective will be explored (8.2), it will be demonstrated how quality management is an integral part of hospital management (8.2.1), and an overview will be given of the results of previous inventories on quality management in Dutch hospitals (8.2.2) and the concrete type of management activities that seem to be hidden behind the label 'quality management' when used by Dutch hospital administrators (8.2.3).

After the demystification of quality management in 8.2 an attempt will be made to demystify the development of quality systems in hospitals (8.3). The debate on quality systems has become very popular over the past seven years and has been enforced by the Leidschendam conferences (1989, 1990 and 1995), a new law on quality in health-care institutes (1996) and the popularity of industrial models for quality improvement among hospital administrators (see also 3.7)

In paragraph 8.3 the applicability of two models for the development of quality systems will be analysed i.e. the ISO model (8.3.1) and the model of the European Foundation for Quality Management (8.3.2). Furthermore, existing evidence on the impact of Total Quality Management and Continuous Quality Improvement in hospitals will be assessed (8.3.3) and it will be analysed how the development of quality systems in Dutch hospitals is related to the overall development of various management functions in hospitals (8.3.4 and 8.3.5).

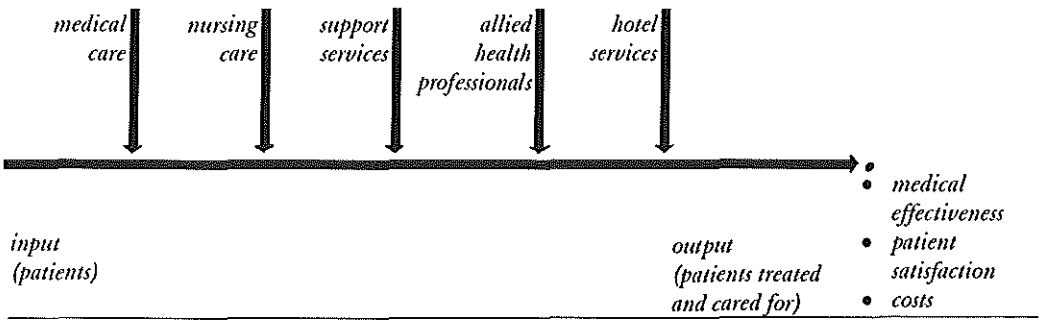
In 8.4. reflections will be provided on the integration of quality management of medical specialist care with the development of quality systems in hospitals. Apart from considering this integration from the perspective of management theory (8.4.1-5), the integration will also be discussed from the perspective of professionalisation theory (8.4.6) and innovation theory (8.4.7).

8.2 QUALITY MANAGEMENT IN HOSPITALS

In chapter 5 the professional infrastructures in which the specialist functions (medical staff with committees, partnerships and house staff) have been described in detail.

When the whole hospital is taken as the organisational unit where quality management should be applied, it is evident that far more than was mentioned so far is needed to assure the quality of the total of the processes that constitute patient care. Figure 1 provides a simple representation of the hospital organisation.

FIGURE 1



It shows a hospital model that discerns structure, process and outcome. On the outcome side, three important dimensions of the quality of hospital care, as discussed in chapter 1, are represented: (medical) effectiveness, costs (efficiency), and patient orientation/satisfaction. Patient care is recognised as the primary process of the hospital; personnel and facilities can be seen as the structural component. It should be

noted that five processes together result in the primary process. These five processes are: medical care, nursing care, care provided by allied health professionals, supportive services (pharmacy, laboratory, radiology department) and hotel services (cleaning, meals). These five processes are reflected in the formal organisational structure (organograms) of most hospitals. Keeping this figure in mind, the following about hospital-wide quality management can be stated:

- quality management has to do with making the primary process (patient care) and its goals explicit (formulation of goals and strategies);
- quality management has to do with the formulation of criteria on many different aspects of hospital care (criteria setting);
- quality management has to do with the control and improvement of health-care processes (measurement and change);
- quality management has to do with the co-ordination of the five processes that together constitute the primary process (assigning responsibilities, design of processes, creating information and communication structures);
- quality management has to do with the creation of circumstances in which people can do their work in the right way (and thus has a relation with social policy, safety management and environmental policy);
- quality management has to do with the adjustment of the health-care delivery processes towards the actual nature and volume of the demand/need (and thus has a relation with strategical management, marketing and capacity management/logistical management);
- quality management has to do with motivating people to do their work even better than they do already;
- quality management has to do with making care processes more transparent and thus creating means of external accountability.

In a way the simple plan-do-check-act cycle, introduced in chapter 2 and made visible for specific parts of hospital activities in chapter 5 (committees) and 6 (peer-review studies), is now applied on the full complexity of the whole hospital organisation. It considers the hospital as a system of mutually interactive and synergetic evaluative cycles that all merge into one coherent system aimed at continuous assurance and improvement of the totality of hospital services.

8.2.1 Quality management as an integral part of hospital management

Formulated as above, quality management is an integral part of management. The term 'quality management' seems almost synonymous with 'management' (KLAZINGA AND DONKER, 1995). However, this additional emphasis on quality has a function. It synthetizes different management approaches that differentiated over the years and it helps to shift the view from traditional management theory, largely based on interest

in strategy and structure (the hardware of the organisation according to PETERS AND WATERMAN, 1982) towards design, control and improvement of the care processes, focusing more on the software of the organisation through systems and procedures, people, management style, guiding concepts and shared values (i.e. culture) and the present and hoped-for corporate strengths or skills. This vision, that quality management is an integral part of all management functions, is also present in the quality management model of the European Foundation for Quality Management (EFQM, 1992). The EFQM was founded by some major European industries, including the Dutch companies Philips and KLM, and developed an instrument for self-appraisal on quality for companies that wanted to win the European Quality Award. This award, based on the USA Balbridge award, was first given to a company in 1992. The model, embedded in the instrument for self-appraisal, discerns nine interlinking management functions that together constitute the management of quality in an organisation:

- leadership;
- management of personnel;
- policy and strategy;
- management of resources;
- management of processes;
- satisfaction of employees;
- satisfaction of customers;
- position in society;
- business results.

The first five management functions focus on the enabling of quality services, the latter four focus on the results. Although this is only one of various models, it illustrates the complexity of the quality management concept and its many links with other parts of management. The strength of quality management appears to lie in its possibilities to synthetize parts of management that have differentiated too far and tend to become 'stand-alone systems'. On the other hand this seems to be also one of the weaknesses of the quality management concept; it is so fluid that various approaches can be labelled as such and these approaches do not necessarily have to be the right management approach for a specific organisation in a specific context in a specific period of time. Therefore it is worthwhile to explore the nature and maturity of existing management functions in Dutch hospitals, given the present health-policy context, to get a better insight into the dangers and opportunities of applying quality management models from (service) industry in the nineties in Dutch hospitals.

Paragraph 8.3.4 illustrates how management of Dutch hospitals has, especially since World War II, adopted the successive management theories that were developed in industry. Quality management in hospitals can thus be considered as an adaptation to the specific circumstances of the health-care setting of notions that have been floating around in industry since the fifties (see also chapter 1). Acting within a context that was

first characterised by cost containment (the budgeting system for hospitals was introduced in 1983) and then by cost containment combined with plans for deregulation and the introduction of market elements (the Dekker plans were issued in 1987), hospital administrators have adopted ideas on quality management as a means to face the external pressures. Although the mix of reasons to start with quality-management initiatives may be different in each hospital, it is a fact that especially since 1985 a growing number of hospital activities have been labelled as 'quality policy' and 'quality management'. Although many new initiatives have been taken, it is also evident that a lot of quality management had already been going on for years but had never been called as such. 'Quality management' got external legitimisation through national policies expressed by the government (*Quality of Care in The Netherlands*, 1991), through a new law on Quality of Care in Health-care institutions (effective since April 1996) and through national bodies of professionals, managers, insurers and patients alike (Leidschendam conferences in 1989, 1990 and 1995).

8.2.2 Inventories on quality-management activities in Dutch hospitals

Several attempts have been made to compose an inventory of existing and ongoing activities that are considered quality management in health care. On request of the National Council on Public Health, the NIVEL (Dutch institute for research in primary health care) performed evaluation studies on the development of quality systems in health care (SLUYS AND DE BAKKER, 1992, 1994, WAGNER 1995[19]). For their first study they interviewed representatives from national organisations of professions (23) and health-care institutions (14). The type of activities that emerged as being associated with 'the development of quality systems' and 'the quality policy of the institution' were (SLUYS AND DE BAKKER 1992: 73-90):

- description of a general model for a quality system in accordance with the plans of national bodies that represent their interests;
- formulation of policy plans;
- external visitation/accreditation of health-care institutions;
- mutual comparisons on outcome data between institutions;
- medical and nursing audit quality profiles and working with quality circles;
- development of care plans making care processes explicit;
- committee activities to monitor and improve specific aspects of the care process;
- feedback from patients/clients;
- complaint handling;
- inspection and certification.

[19] *The author was a member of the steering group of these studies.*

For their second study they performed 36 interviews on the development of quality systems, 22 in institutions, 14 with professionals. The sites were selected by the national corporate bodies of professionals and institutes, based on their perceived status as a forerunner. This study showed the different internal and external reasons for health-care institutions to start with the introduction of quality systems and the implementation problems encountered. Internal reasons mentioned most frequently among 22 institutions were: quality always had a priority (mentioned 10 times), in concordance with modern ideas on management (9), re-organisation, merging or expansion (9), increased efficiency and process re-engineering (7), idealism and felt responsibility of management (6), external visitation/review as the main trigger (3). External strategic reasons brought forward in the interviews were: continuation of existence (9), position and image on the market (4), anticipation on national policies (4), anticipation on demands of insurers (4), anticipation on new legal obligations (3), anticipation on future certification (5) (SLUYS AND DE BAKKER 1994).

These different reasons appear to underline the notion that organisational development in combination with the socio-economic context are the driving forces behind the introduction of quality systems on an institutional level. It should also be noted that 'consumer satisfaction' and 'satisfaction of employees' were not mentioned to such an extent that they could be grouped as separate categories.

Apart from the studies performed by the NIVEL, the NZI (Dutch Hospital Institute) undertook a study in 1992 in which the researchers tried to make an inventory of all projects going on in Dutch hospitals related to quality management. This study demonstrated the existence of 118 ongoing projects that had in common that improvement of the existing situation was sought. A large part of the projects focused on patient feedback, patient information and complaint handling. Another major part of the projects focused on the explicitation and optimisation of specific care processes mainly through logistical adjustments (waiting times at policlinics, admission policies, OR planning etc.) (TIMMERMANS AND DUBBELBOER, 1992).

8.2.3 *General listing of activities labelled as quality policy and quality management by hospital management*

Based on these formal reports and on personal observations over the past ten years, the following type of activities appear at present to be the operationalisation of quality management in hospitals. The listing illustrates that from the perspective of hospital management the quality concept is broadened to far more aspects than medical effectiveness alone:

- Activities related to the notion that the *patient is the consumer* of the product the hospital delivers and therefore should be listened to carefully and informed properly. This notion has been translated in the introduction of functionaries for patient

information/education in most hospitals, the use of patient surveys, the formalisation of complaints handling procedures, meetings with regional representatives of patient organisations, implementation of national legislation with respect to patient rights (for example patient access to medical records), improvement of hotel facilities for patients (television, shops, hairdresser etc.) and visitors (visiting hours, parking place, sign posts, public transport).

- Activities related to the notion that the *care processes should be directed to the primary process of patient care and these processes need control and improvement.* These notions get a theoretical foundation in a series of publications on the 'steering-of-care processes' (HOGEWIND 1988, HOORN ET AL. 1988, 1991, 1994, DE VRIES 1993) and are characterised by the application of logistical models to hospital activities. Concrete projects deal with problems like waiting times, admission policies, capacity planning and workload control at OR, ICU and nursing departments. In all these projects, informatisation plays an important, and, in some projects, the most important role (LETTINK ET AL. 1991).
- Activities related to the notion that *quality management is the responsibility of all persons working in the hospital* and that it should be nurtured through motivating personnel and making common beliefs and values more explicit. This 'cultural approach' is usually reflected in activities as the formulation of mission statements for the hospital, common activities for all personnel and an explicit communication strategy from hospital management.
- Activities in which the PDCA *cycle* can be recognised, related to either specific groups of professionals and support services or to special elements of hospital care. Many already existing activities in the hospital are relabelled as potential 'quality cycles' and the fact whether existing evaluative activities cover the full PDCA cycle becomes a point of concern.

  For the professional groups different peer-review programmes exist such as nursing audit, audit for the allied health professions (physiotherapy, occupational therapy, speech therapy) and medical audit.

  For support services like the laboratory, pharmacy and radiology department more or less formalised quality systems exist with, for laboratories and pharmacies, external certification (I.E. CCKL; LOEBER, SLAGTER 1991).

  Special elements of hospital care are covered through specific committee activities. Some of these committee activities are still mandatory (such as the incidents committee and the infection control committee) but in general these activities are perceived as necessary contributions to the quality management of the hospital. There is a substantial overlap with the committee activities already discussed in the paragraph on quality management of medical specialist care at the tactical level in chapter 5.

- Activities to *integrate existing activities towards a hospital-wide quality assurance programme*. This usually implies the existence of a multidisciplinary steering group, attempts to make an inventory of existing activities in the hospital, an orientation towards the theory of quality management sometimes with help from outside consultants within the format of working conferences, and the formulation of policy reports and action plans on hospital-wide quality management.
  Over the past five years a growing number of hospitals has appointed *quality assurance co-ordinators*, persons whose job it is to support hospital management (and in several cases also the medical staff) with the realisation of the type of activities mentioned above. These 'quality co-ordinators' usually have a staff position and have to be expert on QA, facilitator and liaison between professional and managerial interests all at the same time (STEENSMA, 1992).
  Several networks of quality co-ordinators are supported by NZI and CBO and specific training courses for these new functionaries have been provided since 1994 (WIERSEMA AND ELSINGA, 1995).

This kaleidoscope of activities under the umbrella of quality management in Dutch hospitals can be compared with the overall interest of hospital management in Europe in quality assurance. As part of the COMAC/HSR/QA project questions were posed to the participating European hospitals on the involvement of hospital management in quality assurance activities in 1990, 1993 and 1995[20]. The results are summarised in the following table.

[20] *In succession to the first concerted action programme (1990-1993) a second programme was launched in 1994 under the aegis of the* BIOMED *programme of the* EU. *During this second programme, which will last until 1997, two additional clinical topics were added to the four that played a central role in the first project: blood-transfusion policy in hospitals and quality assurance at the Emergency Department. As part of the assessment phase of the second concerted action programme on quality assurance in hospitals, a questionnaire was filled in by a total of 145 hospitals in 12 European countries. Although this sample is not representative for all European hospitals (neither was the sample in the 1990-1993 study), it provides some insight into the extent to which specific quality activities seem to exist all over Europe. The data presented in the 1995 column were reported in the 1995 annual report of the project to the* EU.

TABLE 1

Involvement of hospital management in participating hospitals in 1990/1993/1995 as reflected in the answers to specific questions in the questionnaire

	N = *113* *(1990)*	N = *262* *(1990)*	N = *113* *(1993)*	N = *145* *(1995)*
Policy plan on QA	36%	31%	47%	39%
Personnel for QA/TQM*/CQI*	44%	41%	46%	50%
Budget for QA	17%	7%	15%	18%
Systematic complaint handling	82%	85%	88%	91%
Systematic patient survey	75%	72%	78%	76%
TQM/CQI philosophy*				49%
Annual QA report*				43%

** questionnaire 1995 only*

The table shows the relative involvement of hospital management in the formulation of policy plans on QA, the availability of personnel and a budget and the handling of complaints and use of patient surveys. Apart from the differences in relative attention to these topics, the point that the financing of QA activities is rated low demonstrates the importance of the linkage between quality management and financial management. In general, this 'European picture', although not representative for all European hospitals, enforces the observations made earlier on the operationalisation of the concept of quality management in Dutch hospitals.

Summarising the present situation around the implementation of quality management in Dutch hospitals it seems that the socio-economic context of the health-care system together with the organisational development of hospitals constitute the main forces behind the nature and scope of the present activities. The existing activities can be grouped as:

- consumer-oriented;
- care process-oriented;
- personnel-oriented;
- profession-oriented;
- support service-oriented;
- aspect-oriented (PDCA cycles);
- oriented towards integration and system development.

The adjective 'quality' in 'quality management' could be seen as redundant as it seems to have been broadened to all management functions. However, the manage-

ment techniques applied seem to relate more to modern 'software approaches' than the traditional 'hardware approaches' and thus the label 'quality management' is the carrier of new management approaches in hospitals.

This last statement will be explored in more detail in the next paragraph on the development of quality systems in Dutch hospitals.

8.3 THE DEVELOPMENT OF QUALITY SYSTEMS IN DUTCH HOSPITALS

The discussion on the introduction of quality systems originates from the quality discussion in industry where the phenomenon of a quality system was introduced as part of the attempts to describe and control the quality of products and services. It thus became pack and parcel of management theory in general and the different theories on quality management such as Total Quality Management and Continuous Quality Improvement in particular. In the Dutch context it gained importance when the paragraphs in the Leidschendam statements on 'internal mechanisms for quality assurance' were rephrased by government, as the prerequisite that all health-care institutions should have a functioning quality system and the industrial model was taken as one as the points of reference. In the ISO norms (9004/2) a quality system is defined as 'the organisational structure, responsibilities, procedures, processes and resources needed to implement quality management' (see also 4.1).

This definition has been copied in all official documents on quality in health care, just as in the previous five years the ISO definition of quality was copied. From a policy point of view this has been a consistent action; the definition was hardly disputed and strengthened the feeling on governmental level that health care should be dealt with as a specific branch of industry, copying models and jargon prevalent in the economic domain and introduced by the Dekker report.

8.3.1 Pros and cons of applying the ISO *norms for hospitals*

However, the concepts behind the ISO definition of a quality system and especially guideline 9004-2 (NNI, 1992) that describes the profile of a quality system for a service industry, contain some flaws that should be addressed when applying the model in health-care institutions. This issue, and the use of ISO norms 9000-9004 in health care in general, was addressed specifically in a report of the National Council for Public Health in 1991 (NRV, 1991, CASPARIE 1992). Based on this report and personal experience with the norm the pitfalls are the following:

- The ISO norm takes the individual demands of the consumer as the starting point for the design and production of products. Although hospitals surely address the

demands of patients, its rationale is above all the health needs of populations as defined within the domain of medicine. Therefore the assurance of quality does not only encompass an assessment whether the patient is satisfied, but, as is the case in medicine, whether scientific knowledge is applied correctly. The challenge in health care is to balance the needs and demands and the way to do this is a good patient/doctor communication and clear-cut information on the possibilities and limitations of contemporary health care. Taken literally, the ISO norm will shift the balance to the appeasement of patient demands and may sharpen the discrepancy between demands and needs instead of helping to find an equilibrium. As long as hospital services are the subject of cost control and limited reimbursement through the social insurance, the need will exist to limit services to what is considered on a social level as a medical need. This line of thinking was enforced in The Netherlands by the Dunning report (1992) on choices in health care. A quality system of a hospital that steers on patient demands combined with a financing system that steers on medical needs will put especially the direct deliverer of the care, the specialist, in a difficult position.

- A second disadvantage of the ISO norm is, that it is developed with a hierarchical organisational model in mind, with top management bearing the final responsibility. Such a model needs adaptation when applied to a professional bureaucracy, especially when applied in Dutch hospitals where the debate on the economic and political autonomy of the specialist, apart from the clinical autonomy, is a continuous source of discussions and conflicts (see 5.2). Implementing the ISO norms without addressing the problems behind the dual organisation model of hospitals and without creating synergy with initiatives such as 'management participation' (see also 8.4) will sharpen the profession-management dilemma instead of solving it.
- A similar problem exists in the fact that the ISO norm assumes synergistic economic interests of all actors involved in the quality system. As a consequence of the development of the model in industry, the notion of profit-making is subsumed in the model. This is not only true for the ISO norm but can de found behind all major quality theories from industry such as TQM and CQI (ROOZE, KLAZINGA, CASPARIE, 1994). The present reality of Dutch hospitals with an external budget system for the operating costs for the hospital and a majority of specialists paid on a fee-for-service base, is not congruent with economic interests subsumed in the ISO model. Recent initiatives towards new reimbursement models for specialists as part of the total hospital budget, seem more promising. Again, this issue needs to be addressed when applying the model to prevent that the interests of managers and specialists are divided instead of merged.
- A fourth danger that lies in the ISO model of a quality system is its literal application. When used as a blueprint, the introduction of a quality system in accordance

with the ISO norms may end up in a highly bureaucratic exercise of making processes explicit and writing handbooks. Although this is not the fault of the model itself, it is the consequence of too narrow a managerial scope on the development of quality systems, considering it a mechanistic rather than an organic process.

- A fifth danger lies in the fact that certification by ISO norms (i.e. the 9000-9004 series), certifies the management system and its procedures and documentation, but does not guarantee the quality of the actual clinical performance. By providing ISO certificates to hospitals potential patients may draw the erroneous conclusion that the medical quality is of a high level. This danger has led the German *Arbeitsgemeinschaft der Spitzenverbände der Krankenkassen, Deutsche Krankenhausgesellschaft* and the *Bundesärztekammer* to release an official statement on 23 January 1996 saying that these ISO norms are not appropriate for hospital certification and that ISO certification initiatives are not supported by them (DOK, 1996).

The ISO model is the product of rational engineering with its roots in production industry – this is both its strong and its weak point. It rationalises both quality and quality management in an organisational setting of service delivery but, as a consequence, has to ignore the intrinsic factors that make people deliver quality. In the process of developing a quality system these factors can, however, not be ignored but are, in some management theories, the focus of quality management. Despite the disadvantages, several health-care institutes in The Netherlands have been involved in implementing the ISO norms (9000-9004) and guideline 9004-2, notably home-care organisations who see benefits in certification given their rather competitive context. For the hospital sector the so-called PACE norms have been developed by TNO (Netherlands Organisation for Applied Scientific Research), in collaboration with a group of hospitals. These norms have initially in 1995 been supported by the Dutch Association of Hospitals (NVZ) although since then their has been a fair amount of criticism on their appropriateness. They can be used, however, by hospital managers who want to integrate the PACE approach in their overall activities related to quality improvement. The PACE norms are by themselves descriptions of the elements that should be included in a detailed system approach of specific departments or functions in the hospital organisation. The disadvantages of the ISO norm are somewhat mediated because of the specific hospital approach, but the danger of an overtly mechanistic implementation, resulting in handbooks instead of change, still exists. One other disadvantage of the PACE norms is that they focus on specific parts of the hospital organisation (i.e. radiology department, hotel services) and thus do not take the whole hospital as the starting point for the development of a quality system. As was described in 8.2 (figure 1), many of the existing quality problems can be found in the co-ordination and interaction between the different groups in the hospital that together produce the primary process. By focusing on the existing organisational

units, the PACE norms do not necessarily address these problem areas. Apart from TNO, the Dutch Normalisation Institute (NNI) has also entered the marked of norm development in health care. A NNI norm on day surgery, developed in accordance with the procedure used for other NEN ISO norms in Dutch society, is due to be published in 1996.

With health-care policy plans and reforms that transform administrators into managers, hospitals and specialists into providers, patients into consumers and sick funds into purchasers the use of industrial norms, like the ISO, for the certification of health-care services seemed appealing. It would help purchasers to assure the quality of the services they pay for their insured. At the same time a 'certification approach' is perceived as a good alternative for government regulation. The phenomenon to introduce certification in domains of society that were controlled beforehand through more extensive government regulation is not unique for health care. In Dutch society a similar approach has been taken by government over the past ten years in the domains of environmental protection (*'milieuzorgsystemen'*) and safety and risk management at the working place ('ARBO-*systemen*'). In both areas legislation has been introduced that forces companies more or less to acquire a certificate that guarantees the functioning of their environmental policies and policies related to the labour conditions of employees. For hospitals this has become even more complex because they are not only supposed to develop a quality system, in accordance with the new law on Quality in Health-Care Institutes, but also have to develop a systematic approach towards environmental issues and labour conditions on the working place. It seems wise to create synergy between these different attempts, especially in the field of safety management, to ensure an efficient use of manpower and resources (KLAZINGA AND KREMER, 1993).

However, after a phase of oblivious enthusiasm, the real nature of ISO norms and its applicability for certification in health care becomes more clear. Apart from Germany, the British experience with ISO-based certification in hospital care also resulted in a rather negative verdict.

> *"It must be concluded that the* BSI *framework (British* ISO*) is not suitable to help predict the quality of many types of health service; however, where the physical product component of a service is high, or integral (i.e. a laboratory testing service) it is possible that the* BSI *criteria may help to predict and monitor quality."*
> (ØVRETVEIT, 1994)

To co-ordinate the different efforts to start with certification of health services in The Netherlands and to assess the different frameworks for certification on their applicability in health care the Foundation for the Harmonisation of Certification and Accreditation in Health Care was founded in 1995 (CASPARIE, KESSENER AND FRISSEN, 1995).

Obviously, there is ample reason to explore the applicability of alternative frameworks and models for the development and assessment of quality (systems) in hospitals.

8.3.2 Pros and cons of applying the EFQM *model for hospitals*

Contrary to the ISO norm, the EFQM model focuses on management development instead of standardisation. The model of the European Foundation for Quality Management combines three elements, a quality management approach that integrates nine dimensions of management, a 'maturity grid' for the development of quality management that discerns five stages and a competition for an award. These three elements together can be seen as a consistent attempt to support the implementation of quality management in industry. As in health care the appreciation of quality management as a specific task of hospital management is still in its toddler years, and the system approach (promoted in the new Law on Quality in Health-Care Institutes) is in many cases still a verbal skeleton without functioning muscles and brains. A model like the EFQM model that supports both the identification and implementation of quality systems without being too prescriptive, seems worthwhile. The nine management areas discerned in the EFQM model, that cover management activities enabling quality service as well as the results, can also be identified in hospitals: leadership (the role of the medical director), policy and strategy, satisfaction of employees, management of results (outcome measurement), recognition by society (hospital image), customer satisfaction (patient satisfaction), management of personnel (social policy, training), resource management (utilisation review) and the management of processes (process design, and logistics). In 8.3.4 the relation between the present development of management functions in Dutch hospitals and the elements of the EFQM model will be discussed in more detail later. Suffice it to say here that all areas of the model have their counterpart in hospitals. Furthermore, the five development phases identified in the model (usually represented as a cobweb with nine segments, each divided into five stages), bear large similarities with stages identified elsewhere in the literature (see 2.5.5). The stages are: orientation on activities (projects), orientation on processes, orientation on systems, orientation on chains (chain quality) and orientation on total quality. These first three phases (activities, process, system) are identical with the phases that were identified empirically by the NIVEL in their study of the development of quality systems in Dutch health-care institutes (SLUYS AND DE BAKKER, 1993). This study, performed in 1992, showed that the thinking on quality policies among managers had started but that concrete activities were limited to isolated improvement projects and process descriptions. A real system approach could only be found in specific part of the institutes such as laboratories and pharmacies (IBID. 1993).

The Dutch hospital institute has also recognised the EFQM model as a useful instrument to support the development of quality management in hospitals and has adapted the original questionnaire in a self-assessment instrument for hospitals (SCHOOL ET AL. 1993, WIERSEMA 1992, NABITZ AND WIERSEMA, 1995).

Until now the element of an award, the third element of the EFQM model, has only partly been copied for the hospital sector. Although in theory hospitals can participate in the *Nederlandse Kwaliteitsprijs*; this is mainly seen as an activity of the Ministry of Economic Affairs and thus for industry. There are, however, several prize initiatives specifically designed for health care. As part of the national policy on quality of care, during the Leidschendam conference in 1995 a prize was awarded for the health-care institute with the best annual report on quality policy. Furthermore, since 1994 hospitals have been participating in the Golden Helix Award, an international initiative of Hewlett Packard Inc. This award does, however, focus on successful quality projects and is not aimed at the development of quality systems. An award specifically tailored to the development of quality systems in hospitals is at present not existing.

The EFQM self-assessment questionnaire was also a source of inspiration for the 1995 NIVEL study in which the development and implementation of quality systems in Dutch health-care institutes was assessed (WAGNER ET AL. 1995). In the questionnaire used for this study, six out of the nine areas identified by the EFQM were operationalised in questions that related as much as possible to already existing national policies and concrete quality-management activities identified in earlier studies. A total of 1749 institutes returned the NIVEL questionnaire (a response of 71%), among them 143 hospitals (response rate 76%). When the empirical material on all health-care institutes was statistically analysed, a total of five areas and four phases could be identified in the material. The areas that emerged were: policy and strategy, social policy, process control through norms and protocols, process control through the development of subsystems and participation of the patient/client. The phases identified were: orientation/awareness (0), preparation and development of an infrastructure (1), projects (2) and systems (3). The researchers conclude that the EFQM model has merits because it stresses the need to evaluate the needs and satisfaction of customers, it also stresses the need to integrate different management functions, it emphasises the role of the employees/professionals, it works towards chain quality and, thus enforces institutes to integrate their services with health-care activities outside the hospitals (WAGNER ET AL. 1995:93-94). Øvretveit draws similar conclusions on the applicability of the EFQM model for (certification of) health services when he compares this model with other possible frameworks for certification (ØVRETVEIT, 1994). He also underscores the need for specific adaptations and inclusion of new areas based on experience in a given health service sector. Instead of weakening this will increase the predictive power of the model.

8.3.3 Evidence of the impact of TQM/CQI

Although hospital managers seem keen to use the jargon that goes with concepts as TQM and CQI, several of the aspects of these models are not automatically applicable in the hospital situation (ARNDT, BIGELOW, 1995). Problems identified with the use of the ISO norms (8.3.1) are also present when using a concept as TQM in the professional bureaucracy of the hospital organisation. McLaughlin and Kaluzny (1994) discuss the applicability of TQM in hospitals and conclude:

> "TQM *represents an approach with a great deal of potential, yet it presents some basic conflicts with underlying norms and expectations that guide professional bureaucracies. Although the conflict exists, the problems are not intractable and, if recognised, represent opportunities not only to improve quality of care but also to improve the systems designed to provide quality care.*"
> (MCLAUGHLIN AND KALUZNY 1994:197).

It still remains to be seen whether their optimism is justified. It assumes that the 'underlying norms and expectations' of professionals and management in the hospital can be synchronised in such a way that the seeds of TQM are put in fertile soil. Evidence on the effects of TQM/CQI in hospitals is still scarce and consists mainly of case studies (BIGELOW, ARNDT, 1995). Many of these case studies have an enthusiastic tone which reflects idealism rather than evidence and provides anecdotes rather than scientific proof.

In The Netherlands, Blauw (1988) studied the implementation of IKZ (*integrale kwaliteitszorg*, a Dutch acronym that covers the TQM/CQI approach) in a representative sample of Dutch industries. He focused on the integral character of TQM/CQI approaches and took Rogers innovation/diffusion theory as the theoretical basis for studying the actual implementation. He concludes (in 1988) that only very few companies are fully applying TQM/CQI, from all companies assessed only 9% has reached the phase of actual application and 22% is busy with the implementation. The total innovation process of implementing TQM/CQI lasts almost 10 years, out of which 6 years are needed for the introduction of the concepts, the forming of an opinion within the company and the actual decision-making to start implementation. The actual implementation lasts 3 years (BLAUW, 1988:177). He also concludes that:

> "[...] *during the innovation process of* IKZ A *lot of energy is spent on problem solving, for example the writing of a quality manual, and relatively little attention is given to the diffusion of the* IKZ *ideas. Problem solving is usually delegated to a quality co-ordinator or an external advisor; thus the problem solving capacities of the organisation as a whole does not increase.*"
> (IBID. P. 177)

One of the few studies that actually tried to study the effects of TQM/CQI approaches in hospitals through a quantitative study design is reported by Shortell et al. (1995). They studied the relationships among organisational culture, quality improvement processes and selected outcomes for a sample of 61 US hospitals. Primary data were collected on measures related to continuous quality improvement/total quality management, organisational culture, implementation approaches, and degree of quality improvement implementation based on the Baldridge Award criteria. These data were combined with independently collected data on perceived impact and objective measures of clinical efficiency (i.e. charges and length of stay) for six clinical conditions. Their principal findings are that whether or not a hospital had adapted all criteria considered essential for CQI/TQM did not appear to make a difference in regard to the actual degree of quality improvement that had occurred. A participative, flexible, risk-taking organisational culture, however, was significantly related to quality improvement implementation. Quality improvement implementation in turn, was positively associated with greater perceived patient outcomes and human resource development. Larger-size hospitals experienced lower clinical efficiency with regard to higher charges and higher length of stay, due in part to having more bureaucratic and hierarchical cultures that serve as a barrier to quality improvement implementation. They conclude that what really matters is whether or not a hospital has a culture that supports quality improvement work and an approach that encourages flexible implementation. Larger-size hospitals face more difficult challenges in this regard.

Another recent American study of TQM looked at the contributions of commitment, quality councils, teams, budgets and training to perceived improvement at veterans health administration hospitals (LAMMERS ET AL. 1996). Through a survey among quality co-ordinators (N = 36) and quality improvement team leaders (N = 228) the authors found that the age of the quality council, overall facility commitment to the TQM philosophy, and physician commitment are the most critical variables in explaining numbers of teams, training intensity, and total perceived improvement at this sample of medical centres. Specifically they found that commitment to the TQM philosophy and the number of active teams explained 41% of the observed variation in quality improvement.

A similar study of the TQM/CQI effects in Dutch hospitals has not yet been performed. Available studies are of a descriptive nature (E.G. BEDAUX, DUBBELBOER, KLAZINGA ET AL. 1988). In the 1995 NIVEL study an attempt has been made to assess the possible impact of the energy put in TQM/CQI and the development of quality systems. In the total group of 1749 respondents, representing various types of health-care institutes, two subgroups of institutes were identified that were advanced (N = 137) and average (N = 914) with the implementation of quality systems (based on the four development phases identified in the material). The effects as reported by the respondents in the respective questionnaires were compared between the two groups. Significant differences could

be identified and the researchers conclude that more advanced quality systems (as operationalised in the questionnaire) result in more effects on the outcome dimensions consumer satisfaction (increased client orientation, increased consumer satisfaction), employee satisfaction (increased employee satisfaction and motivation) and functioning of the organisation (improvement of image, increased process control). Cost savings were in both groups reported as being very low (WAGNER ET AL. 1995).

Although the NIVEL study was aimed at all health-care institutes and not specifically at hospitals and the effects were not assessed independently by the researchers but reported by the responsible managers themselves, the study underscores the impression that the implementation of quality systems is underway but is not really perceived as an instrument for standardisation, competition and cost savings. It seems an instrument for organisational development (process control), patient orientation and (to a lesser extent) employee motivation and satisfaction. While in industry the main function for the development of quality systems lies in the nature of the provider/purchaser relation (external function), the motives brought forward by Dutch health-care institutes are more of an internal organisational nature. Quality systems seem to be the latest, but not the last phase in the continuous process of management development in hospitals.

8.3.4 Management development in Dutch hospitals and its relation with the development of quality systems

The previous discussion of the ISO norms 9000-9004, the EFQM model and the impact of CQI/TQM reported in literature, shows that, although there is one consistent definition and description of a quality system, there is not one consistent theory on its development in a hospital. Over the years, hospital management in The Netherlands has adopted all the different management theories that have become fashionable in manufacturing and service industries such as management by objectives (P. Drucker, *The Practice of Management* 1954), matrix organisations (Davis and Lawrence, *Matrix*, 1977), systems and contingency theories of organisation (Katz and Kahn, *The Social Psychology of Organisations*, 1966), management theories on power and politics (Henry Mintzberg, *The structure of organisations*, 1979), theories on organisational culture, corporate images and leadership (E. Schein, *Organisational Culture and Leadership*, 1985, Morgan, *Images of organisation*, 1986, Schön, *Educating the reflective practitioner*, 1991) and theories on learning organisations (Garvin, 1993, Argyris, 1994). The choice for the use of a specific theoretical model seems mostly a combination of the education of the hospital manager and the theoretical beliefs of the persons (often external consultants) that are involved in analysing and solving existing organisational problems in hospitals. The need for the application of more developed management techniques has risen with the growing complexity of the hospital organisation and the external demands put on them.

Based on policy reports, publications in Dutch journals on hospital management and personal experience, the following six types of activities can be identified:

1 An *increasing interest in strategic management*. Practically all hospitals have since the second half of the eighties gone through a cycle of the formulation of a strategic plan for the hospital. The need for a strategic plan was enforced by the changing external situation that challenged both the functions and continuity of hospitals, and the Dutch Hospital Organisation (NZR) and Dutch Hospital Institute (NZI) actively supported the development of such plans. Parallel to the strategic plan for the hospital, the medical staff was asked to write its own complementary plan. This last activity was supported by the Dutch Specialist Association (LSV). Although several strategical plans are merely the sum of the wishes existing in the hospital, many hospitals have performed an external orientation to find out how they are perceived by their customers, patients, general practitioners and local authorities alike. When adherence parameters and specific new functions were included in the new formula for the hospital budget since 1987, strategic policy plans became even more popular.

2 Debates on and experiments with *new structures for the hospital organisation*. The notion that patient care is the primary process of the hospital activities has led in several hospitals to changes in which new organisational units (divisions) where created where several departments and (part) of support services were clustered with decentralised management responsibilities. These reorganisations usually identify three basic logistical models: clinical care, ambulatory care, and day surgery. Clustering of specialties that have a close resemblance in the nature of their activities (i.e. all surgical specialties) is more prevalent as an organisational principle than clustering by urgency of care or severity of the patients. Although the results vary from hospital to hospital (usually determined by the economies of scale) principal factors for the organisational architecture of Dutch hospitals are primarily 'specialties' and 'length of stay' with more or less integration in the divisions of the supportive services such as laboratory, pharmacy and radiology department. Units based on urgency (the emergency department) or severity (intensive care unit) are usually linked to more than one unit/division, unless the scale of the hospital is such (university hospitals) that they can be organised within a specific division. The same holds true for the operation complex that usually serves different departments/units.

From a logistic point of view some authors claim that in theory a better use of available resources can be made when the hospital is not organised by specialties but by patient groups that need comparable types and intensity of care (GROOT, PMA 1993). However, one of the results from the house staff studies (BEDAUX, KLAZINGA 1986, 1988) was that, for the assurance of continuity in medical decision-making and communication, it is preferable to link both AGIOs and AGNIOs to

identifiable specialties rather than letting them perform medical acts for different patients without organisational embedding linked to a specific specialty with its own theoretical and practical domain. In the practice of specialised medicine the standardisation of knowledge and skills through special training plays a crucial role and should not be jeopardised through standardisation of working procedures that might seem reasonable from the point of view of the efficiency of the organisation of work, but are not consistent with the medical decision-making model. Hospitals remain professional bureaucracies where, according to the theory of Mintzberg, the standardisation of expertise should be the leading coordination mechanism. Further development of patient groups as a leading principle of hospital organisational architecture should therefore take the homogeneity of medical decision-making models as the starting point instead of the homogeneity in type and volume of care acts or homogeneity in produced costs (such as DRGs in the USA). This does not only make sense from the perspective of management and organisation theory, but appears also to be concordant with recent professionalisation theory (FREIDSON, 1994). It remains to be seen whether the diagnostic groupings that are at present developed for the financing of specialist care in Dutch hospitals (Diagnosis and Treatment Combinations) (BAAS, 1996) will adhere to this principle.

3 Attempts to *implement management theories on culture* by an explicit endeavour to create a hospital identity. Most Dutch hospitals have over the past eight years introduced a house style and several managers explicitly use 'shared values' as an instrument to improve hospital performance by raising the internal motivation and the hospitals external image.

4 The term 'personnel management' has been replaced by social policy and notions on human resource management can be found present in many hospitals. Reassignment of responsibilities of personnel and selection on management expertise when hiring new staff have been important factors in the past decade. With the tendency of decentralisation of management responsibilities the role of middle management has increased and so they have more and more influence on heir own allocation of means. This process of decentralisation of management responsibilities in hospitals has been enforced by the introduction of models for internal budgeting as a consequence of the external budgeting system introduced in 1983. It also runs parallel with the ideas about management participation as expressed by the LSV and NVZ (NZR/LSV, 1990, VERSLUIS, HESSELINK 1993, 1995). Gradually quality management also subsumes the satisfaction of personnel as one of its important components. Sometimes external circumstances force hospital management in this direction, such as shortages on the labour marked of nurses or OR personnel. However, the recognition that professionalisation is a driving force for quality management among health-care personnel makes management suscepti-

ble to a management style that uses this force in a productive way, rather than to fight it.

5 The importance of *leadership* in hospital management has become more visible. When functioning in an open-end financing system in the sixties, a medical director in a hospital could suffice with keeping good relations with all different parties in the hospital organisation but no real steering activities and choice making were required. In the seventies the main challenge was to deal with the external regulation and optimise the situation for the hospital given the external budget parameters. Given the pressures put on the hospital organisation in the eighties and nineties, hospital managers can, however, no longer be caretakers, but should be actual leaders in steering hospitals through the different phases of organisational development and change. The notion that a match between leadership style and specific characteristics of the hospital in this period of time is needed has been recognised. The occupational background of hospital managers is changing, and there is a rapid growth in postgraduate courses and training programmes for hospital managers (MOEN, 1996).

6 Dutch hospitals that have started with a *formal programme to develop a hospital-wide quality system* vary in size and profile. However, all attempts that are officially labelled as CQI or TQM are characterised by strong involvement of hospital management (leadership role), an infrastructure for the programme with a 'quality council' or 'steering committee' and 'quality teams', reliance on a specific theoretical model (Juran, Crosby, MANS) and/or the involvement of external consultants, internal training programmes and internal facilitators (VU Amsterdam: HAIMÉ AND STEGENGA, 1993; Deventer: STEENSMA, 1992; Delft: SCHELLEKENS, 1995; Maastricht: VAN WIJMEN AND CARPAY, 1992). These characteristics and the experiences published are similar to CQI methodologies and applications reported in hospitals in the USA (BERWICK, 1989, LAFFEL AND BLUMENTHAL 1989, BERWICK ET AL. 1990, JCAHO, 1991, JCAHO, 1992, MELUM AND SINIORIS 1992, GAUCHER AND COFFEY 1993, BATALDEN AND STOLZ 1993, MCLAUGHLIN AND KALUZNY, 1994). Although the labelling of activities as CQI/TQM in these Dutch hospitals is more explicit, the set of characteristics and experiences reported are not substantially different from other Dutch hospitals undergoing change. The leadership role of hospital management and the keeping of the balance between top-down and bottom-up initiatives seems to be one of the most dominant issues. Physician involvement is mentioned in all reports as both a necessary condition and a practical problem. Activities of the physician are, however, not taken as the starting point for the development of a formal quality system.

8.3.5 *Reflections on the development of a hospital-wide quality system from a management perspective*

The previous overview was given to illustrate (again) that quality management in hospitals is not an isolated and new development, but a natural extension of the application of prevailing management theories in the hospital setting. Activities labelled as 'quality management in the hospital' can for a large extent be considered as either a renaming or extension of activities that were already underway. As for national policy reasons the 'quality system' has begun to play such a visible role, the question is justified how the development of quality systems can be merged synergistically with the ongoing organisational development processes in Dutch hospitals. Central in the system approach seems to be an integration of the activities mentioned in the previous paragraphs towards a consistent set of evaluative circles guaranteeing the quality of the hospital service as experienced by the patient. One of the first steps towards the development of a quality system could consist of an inventory of already existing quality-management activities in a given hospital. This helps to built on what is already there rather than starting from scratch with only a theoretical blueprint.

Developing a quality system in a hospital without taking the strategy, structure and culture of the hospital into account seems bound to fail. The organisational rule that structure follows strategy (CHANDLER, 1962) could be rephrased as 'quality systems follow structure that follows strategy that should be based on shared values'. This statement cannot be proven in the scientific meaning of the word but there is empirical evidence in the literature on the attempts to introduce quality systems in hospitals to support the argument. Furthermore, the 'why-what-and-how' description of practical experiences used in this study underscores this notion. The statement should not be read as a set of causal relations or as a flow chart. In reality, the organisational development in a hospital will go along all four lines at the same time. However, the possibilities to develop a quality system in the definition as given by ISO, are interlinked to these other three domains. This implies that quality management means working in all these areas at the same time without loosing overview and emphasising one aspect or the other, depending on internal possibilities and external necessities.

With the popularity of quality management, specific management theories have been introduced such as Total Quality Management and Continuous Quality Improvement. Both theories originate from the application in industry and go back to the original PDCA model of Shewhart and Deming (see chapter 1). However, the emphasis of the theories differs. TQM (FEIGENBAUM, 1951) comes closer to the rational engineering of work processes and CQI (JURAN, 1974, CROSBY, 1979) pays more attention to the involvement of individual workers and incorporates notions from the cultural management school. In general, the management focus of TQM/CQI seems to be either on an engineering approach with mechanistic, descriptive and normative characteris-

tics or on a development approach relating to dynamics, organisational learning and employee empowerment. Hospitals are now explicitly applying these theories. In some cases this seems to lead to a clash of schools of what is called the traditional QA (with Donabedian as one of its founding fathers) and TQM and CQI. This clash is enforced when in texts QA and CQI are presented as the 'traditional' and 'modern' form of working on quality (I.E. BERWICK 1989, MCLAUGHLIN AND KALUZNY, 1994, HARTELOH AND CASPARIE, 1991). This discussion seems rather fruitless and is an illustration of a struggle between different groups using semantics from different domains, rather than an argument on a fundamental difference. The main difference might be that 'quality assurance' as a term has its roots in the formalisation of the evaluation of the process of medical care, taking medical decision-making as the starting point and using preset criteria (I.E. CODMAN 1912) and TQM and CQI in evaluation and improvement as a part of management theories inspired by its first application in Japan, taking the functioning of enterprises as a starting point. Through their different roots and domains of application and ownership, QA on the one hand and TQM and CQI on the other, have as terms the potential to mobilise the differences between professional development and organisational development. This debate is nurtured by the fact that in the USA the term 'QA', through the instruments that have in the course of years been developed (JCAHO: accreditation; PSRO peer review and utilisation review), has gained a negative connotation towards physicians. In The Netherlands, however, the Dutch term *kwaliteitsbevordering*, because of its flexible use over the years and the instruments that have been attached to it, has not acquired this negative connotation. Rather than criticising each other's theories, the common denominators behind the concepts should be identified to use quality management as a way of realising synergy between the forces of professionalisation and organisational development (KLAZINGA, 1994). An extensive exploration of the theoretical foundations of Quality Assurance (DONABEDIAN, 1980) seems to be lacking for TQM/CQI. To quote Gann and Restuccia:

> "TQM *has not been systematically studied to see if it is supported by organisational theory or if it is living up to its very positive industrial antecedents.*"
> (GANN AND RESTUCCIA, 1995)

The differences between the profession-based QA jargon and the management-based TQM/CQI jargon are perhaps less relevant than the differences in mechanic versus dynamic concepts that are hidden in the visions behind 'traditional QA speak' as well as behind 'modern TQM/CQI talk'.

QA, TQM and CQI are different theoretical frameworks, similar to the different theoretical frameworks used by different medical specialties. To make the difference understandable for the medical reader:

- QA bears some analogy with the way of thinking in surgery and internal medicine focusing on cause-effect relationships and continuous evaluation of the outcome of one's own action;
- TQM is analogue with the way of thinking in neurology, as it puts phenomena in the context of an physiological blueprint with many different connections and some ultimate functions;
- CQI has an analogous way of thinking as in psychiatry and psychology, it considers a problem from its historical context and its potential for development and seeks to maximise the potential for development.

Although all these specialties have a different theoretical frame of reference, they have a common goal: patient care.

This recognition should play a more important role in the further development of quality systems in hospitals. The next paragraph will illustrate the necessity to integrate the further development of quality systems in hospitals with quality management of medical specialist care, with careful attention to the culture, structure and strategy of the hospital as a professional bureaucratic type of organisation.

8.4 INTEGRATING QUALITY MANAGEMENT OF MEDICAL SPECIALIST CARE WITH THE DEVELOPMENT OF QUALITY SYSTEMS IN HOSPITALS

So far professionalisation of medical specialist care in a hospital setting and institutional development of hospitals as organisations that should be managed, have been used as the underlying forces of the series of activities that constitute 'quality management' and 'quality systems'. Whether these forces act synergistically is determined largely by the extent to which the overall goals of medical staff and hospital management are synchronised and put in an organisational structure (both infrastructure and division of responsibilities) that facilitates a complementary development of the 'control and improvement' of medical specialist care in relation to the overall care processes in the hospital. This paragraph will first explore these preconditions for complementarity and will then look into the different aspects of its development.

8.4.1 Synchronisation of mutual interests of medical specialists and hospital management

Synchronisation of the interests of medical specialists and hospital depends primarily on the existence of common goals. As has been explained in detail in the paragraph on the position of the medical specialist in the hospital organisation (5.2), this is only

partly the case in The Netherlands. Clinical, political and economic interests of specialists and hospital management are only in part overlapping.

Although various attempts have been made over the years to mitigate the effects of the heterogeneity of goals, real synchronisation has not been achieved. It is doubtful whether full synchronisation of interest will ever be possible. The interest of the individual patient (guarded by the specialist) needs always to be balanced with the efficiency interest of the hospital as an organisational unit (guarded by hospital management). This balance has to be found in all the organisational arrangements where the individual patient becomes part of a patient group. The interest of the individual specialist with regard to efficiency within his own working patterns also requires balancing with the interests of the whole organisation. This implies that personal freedom to organise one's work needs limitation to achieve overall efficiency. These two examples of differences in interests will always remain.

Political (i.e. strategical) and economic interests, however, can be synchronised to a smaller or larger extent, depending on the policy role that is granted to specialists in the hospital organisation and the common direction of the financing mechanisms through which hospitals and specialists are reimbursed. Political homogeneity is sought through extensive involvement of the medical staff in policy discussions (policy plans of the medical staff) especially in relation to the strategic planning of new functions and the acquisition of (high cost) new technology (DUTREE, 1991).

8.4.2 *Synchronisation of the economic interests of specialists and hospital management*

Economic homogeneity has increasingly been a topic of debate. Until 1983 both hospital management and medical specialists were interested in increased production, as this resulted for both in increased income. Since 1983 the hospital was forced to keep to a set budget while simultaneously the specialists were reimbursed on a fee-for-service system basis. Thus the economic incentives were no longer the same. As was described in chapter 3 (3.6 and 3.7) several attempts were made by government to frame the costs of medical specialist care (degressive fees, active income policy, setting of a 'macro budget' for specialists costs and, since the past five years, reduction of fees) (SCHOLTEN, 1994, SCHUT, 1995, LIEVERDINK AND MAARSE 1995, KLAZINGA AND SCHEPERS 1996). In 1994 the Biesheuvel committee (chaired by a former prime minister, a cultural characteristic in line with the Dekker and Dunning report) proposed, at the request of the cabinet, a change in hospital financing in which the cost of specialist care would become part of the hospital budget and payment of specialists could be done through salaries (BIESHEUVEL 1994). As a reaction to this report specialists (LSV/NSF/scientific associations), hospital management and insurers have proposed common plans to the cabinet that take 'product pricing' as the main principle for the financing of the

hospital and the specialists (REPORT *Platform Curatieve Zorg*, 1994). By rearranging both the hospital budgeting system and the fee-for-service system towards common 'product groups' a financing mechanism should be created that synchronises the economic interests of hospital management and specialists and still respects the wish of large groups of specialists to function as an entrepreneur. A product-pricing system is also considered by the respective parties a useful instrument to balance the discrepancies between demand, volume of care offered and the available budget in a more rational way. For those specialists that don't opt for running an enterprise, new salaried structures are proposed and plans are presented to abolish the 'goodwill' that has to be paid by young specialists when they enter a partnership (REPORT *Platform curatieve zorg* 1994). The government has, however, approved the plans of the Biesheuvel committee and the Minister of Health, Dr. E. Borst, proclaimed in 1994 that hospitals and specialists who would participate in local experiments with the regional insurers would be guarded against further cuts in the specialists fees. This created the right climate for local experiments with integrated budgets based on contractual agreements between specialists, hospitals managers and insurers (ANKONE 1996). When these new plans on the financing of hospital and specialist care are implemented and if the experiments prove to be successful, a better synergy of the economic interests of specialists and hospital management could be reached.

8.4.3 Management participation of medical specialists

Apart from a common direction through synchronisation of clinical, political and economic interests, the possibilities for integration of quality-management initiatives of specialists and hospital management will be determined be the structures in which they are performed. The previous paragraph described both the traditional structures in which the specialists work (medical staff, partnership and house staff) and the attempts of hospital management to introduce hospital structures that seem more oriented towards the primary process (division structure, specific care units).

Key words in the different initiatives seem to be the decentralisation of management responsibilities and the participation of specialists in management activities. Many of these initiatives are labelled 'management participation'. This terminology was developed on the initiative of the Dutch Hospital Institute and several interested specialists. It gained national popularity when it was mentioned in the so-called 'Five-Party Agreement' (VPA) in 1989 (see also 3.7). In this agreement the national bodies of specialists (LSV), hospitals (NVZ) and insurers agreed on freezing the budget for specialists care for three years but at the same time proposed to stimulate management participation. The term became popular in national policy debates, resulted in three reports of LSV and NVZ (1991, 1993, 1995) and several pilot situations. In contrast to the popularity of the term, its exact meaning is less clear. Two distinctive underlying

approaches can be identified. One approach that focuses on participation of the medical specialists in the policy-making in the hospital (strengthening the role of partnerships and especially the medical staff) and an approach that focuses on participation of specialists in operational management activities in decentralised clinical units (i.e. responsibilities for budgets, personnel, investments, process control). The former approach is stressed mainly by specialists the latter by managers. It is still unclear whether management participation brings the professional under control of management or brings management in the hands (and under control) of the professionals (SCHEPERS, KLAZINGA, SCHOLTEN 1996).

8.4.4 The changing position of medical staff, partnerships and 'house staff'

The changes in structure of the hospital organisation and the introduction of management participation influence the position of the medical staff, partnerships and house staff. The medical staff has over the years developed from a meeting place where specialists debated their common problems (clinical as well as political and economic) towards a formal body that negotiates on behalf of the specialists with hospital management (strategy development, internal budgeting). This process of formalisation of the position of the medical staff has led to phenomena as the 'nucleus staff' and delegation of formal negotiation mandates to staff boards. In those hospitals where a division model has been introduced, part of the debate on budgeting and practical organisation of the work (economic and functional interests) seems to have shifted to fora within the divisions where specialists are participating as managers with decentralised responsibilities. In these situations the plenary medical staff gets a more marginal role but remains the meeting place for the discussion on political interests and during the past five years a revival of the interest in quality improvement can be noticed. The visions on the future role of the medical staff do, however, differ. The LSV book on quality of medical specialist care, issued in 1995, stresses the importance of the medical staff as a policy body but at the same time the LSV was co-author of the reports on management participation in which the role of the medical staff shifts more to the margin. A recent report issued by the NVZ (1996) and written by hospital managers is more clear and states that specialists should not have any direct influence on hospital policy but should participate in operational management activities within economic boundaries set by hospital management and within a common 'company mission' (NVZ, *Hospital management the day after tomorrow,* 1996). This vision bears resemblance with the 'incorporation of professionals' described by Harrison and Pollitt (HARRISON AND POLLITT, 1994:73-112), but clashes with the analysis of Moen who considers the medical staff and its board 'the essential participating link in the network of transactions of partnerships' (MOEN, 1991, P. 133).

The partnerships remain for the time being the core units of the economic interest of the specialist but their position will also alter substantial when the new plans on financing will be introduced. In general, a shift from specialty-confined economic interest towards common economic interests for groups of specialists or the whole medical staff can be seen (see experiments on specialists financing since 1994). This horizontalisation of economic interests of specialists is necessary to prevent that in the near future, within the new financing mechanisms, the conflict of interests between hospital management and specialists is replaced by conflicts of interest among specialists. The conflicts of economic interests among specialties, that became manifest on a national level when the fee-for-service system was constrained within a macro budget (resulting in reshuffling proposals in the Five-Party Agreement in 1989) should not be shifted from a national to a hospital level. To prevent this, synchronisation of economic interests of specialists should be sought through common infrastructures that are a merging of specialty-bound partnerships. The importance of partnerships is not limited to mere economic interests although these tend to come most to the fore. The partnership also bundles the specific professional expertise and is as such a source for continuous critical reflection on the actual clinical performance and innovation of practice. The dangers of dissolving partnerships into patient group oriented groups of different specialists are easily underestimated. In this respect the new division of labour and the various forms of professional autonomy among specialists and with other health professions can benefit from the insights of recent professionalisation literature (I.E. ABBOTT 1988, FREIDSON 1994). Merging of partnerships so far has, however, mainly occurred between specialists of the same specialty, mainly within one hospital but also over different hospitals. This merging of specialists in one partnership that operates in different hospitals (for example all orthopaedic surgeons in one region) could be an adequate response of specialties on the external pressures posed by insurers and hospital management and takes a different route than multi-speciality groups integrated in one hospital.

A solution for the problems with 'house staff' will partly be found when all costs related to specialist production are covered through one financing system. The Biesheuvel plan proposes to pay specialists in training from a national fund. Additional salary costs of specialists in training and not in training (AGIOs and AGNIOs) should be covered by the overall hospital budget and should be seen as an integral part of the production function of specialist care. When in the process of product-pricing prices are set, the work of AGNIOs and (excluding the training component) AGIOs should be considered an integral part of the work force necessary to produce specialist services.

A further 'dissolving' of the AGNIO problem has been occurring since 1995 as the training programme for general practitioners has been extended with one (clinical) year. The physicians in training for GP in their clinical year are partly substituting the AGNIOs.

8.4.5 Strategies for change

As stated before, the possibilities for merging the quality-management activities of the medical specialists and the hospital will be determined largely by common goals and infrastructure. When these preconditions are met, synchronisation of the management of patients and the management of care processes can be realised more successfully. However, when these preconditions are not fully met, it is still possible to achieve progress. Either through committee activities (tactical level), or through multidisciplinary projects on specific parts of the care process (operational level) improvements can be made. This more incremental approach towards the merging of quality management of medical specialists care and quality system development for the hospital as a whole, appears to be a wise strategy for those hospitals where synchronisation of goals and structure is not yet under discussion and a common awareness on the need to work on quality improvement still has to be raised. The incremental approach may, while working from concrete problems, help specialists and hospital management realise that some larger underlying problems also need resolving. This approach may help to create the necessary momentum for change rather than using the external threats all the time as the dominant incentive. Furthermore, finding solutions for common problems, based on the application of logistics and informatics, may create mutual commitment necessary for the realisation of change on a larger scale. The differences between Dutch hospitals with respect to the integration of specialist and management functions should be considered when discussing effective quality management strategies. Solving the existing co-ordination problems at ICUs and in emergency rooms by assigning specific management responsibilities to one of the specialists, is perhaps a more pragmatic and opportune form of management participation than assignment of unclear management responsibilities in ill-defined organisational units.

The above analysis illustrates that there is no such thing as a winning strategy for developing a hospital quality system that is complementary to the quality-management activities of medical specialists. Homogeneity in culture (shared values), strategy and structure are preconditions and the extent to which these conditions can be met, depends on external conditions (context) as well as internal conditions (vision and skills of hospital management and medical specialists). Within the hospital it takes two to tango, and apart from the willingness to dance it takes a lot of practising and mutual understanding to achieve an elegant result based on a continuous performance.

The merging of quality-management activities of medical specialists and the development of quality systems in hospital can only be realised when the underlying forces of professionalisation and institutional development in their socio-economic context

are recognised as such. The success of the merging will, in the long run, be determined by the extent in which homogeneity in goals (political, economic and clinical) between specialists and hospital management exists and is enforced by the hospital culture, strategy and structure. Adaptation of strategic policies, financing mechanisms and logistics management to the needs of the professional bureaucracy, realising a sense of equifinality, is a precondition for further development of quality systems. Leadership and skills of both hospital management and medical staff will determine whether quality will be used as a unifying concept.

At this moment the external conditions (legal and socio-economic) for Dutch hospitals support this unifying approach. Realisation that the success of the development of quality systems is contingent with changes in the management position of the specialist in the hospital organisation, adaptations of internal structures and redesign of financing mechanisms for specialist care that are more closely related with the actual care-delivery processes, will help to acknowledge that quality management in a hospital is far more than the implementation of a model or norm: it is a new step in the maturation process of the hospital as an service enterprise for (medical specialist) care delivery.

8.4.6 *Reflections on the integration of quality management of medical specialist care with the development of quality systems in hospitals from the perspective of professionalisation theory*

All through this text is has been illustrated that the integration of quality management of medical specialist care within quality systems in hospitals is not a mere game with words but also a way to find a balance between professional autonomy and management objectives on hospital level. As has been made clear in previous chapters, quality management for the profession is an instrument for self-regulation and activities within the professional bodies (chapter 4), peer review (chapter 5) and practice guidelines (chapter 6) serve various professional purposes. The professional infrastructure within the hospital (medical staff, partnerships and house staff) serves as the organisational setting where activities are undertaken. At the same time, it has been demonstrated that a hospital-wide quality system from a management perspective can be considered a mechanism to control the professionals. Especially the prevalent policy of management participation in decentralised clinical units bears large similarities with the strategy labelled by Harrison and Pollitt as the incorporation of professionals. Although different sociological theories give emphasis to deprofessionalisation, decreased professional dominance or proletarisation, the situation can best be described as a formalisation of specialist labour, controlled by the profession itself and resulting in a gradual shift form individual autonomy of a specialist towards a collective autonomy of the professional group. Furthermore, although the economic autonomy is changing (the foreseen ending of the fee-for-service financing), and

political autonomy has crumbled, especially at the national level (transformation of the 'old' LSV into a 'new' LSV) the actual clinical autonomy remains seemingly unaltered (KLAZINGA AND SCHEPERS, 1996). The clinical autonomy is still considered the 'nucleus quality' of the profession (VAN OORSCHOT ET AL. 1995) and should not be challenged by management and society but be continuously reconfirmed in reaction to changes inside and outside the profession. Specialists should be provided with an organisational context that stimulates optimisation of professional practice and promotes innovation. Vice versa the manager should expect from the specialist commitment to patient care in accordance with professional standards (VAN OORSCHOT, 1988:69-70). The debate on 'quality systems' has resulted in formalisation strategies both from a professional and a managerial perspective. As has been discussed in 8.3.5 the success of these formalisation strategies seems largely dependent on the structural and cultural setting and the synchronisation of strategic and economic objectives of both medical specialists and hospital management. In theory the concepts behind peer review and TQM/CQI are compatible (BERWICK, 1990), both rely on the PDCA cycle and both are geared at improvement. In practice the compatibility will depend on the synergy between the underlying values and norms of management and professionals, the structure (organisation and responsibilities) in which the quality system is embedded and an accompanying culture characterised by mutual trust and support of quality improvement. In the meantime the relations between specialties and among specialists are continuously changing. At the national level the economic pressure, and especially the agreements made in the Five-Party Agreements, have resulted in a more divided profession and enforced the cohesiveness within specialties. The LSV saw its economic and political position crumble down under the pressures of newly founded specialists' associations (NSF, NSG, ASV), strengthening of the role of scientific societies and shifting of the debate from the national to the regional level.

On the hospital level analogous tensions arose between medical staff (representing all specialists) and partnerships (organised by specialty). The economic pressure (hospital budget and national macro budget for costs of specialised care) strengthened the relative position of the partnerships. However, the shift of the locus of the debate to the regional level has resulted in various attempts of specialists to organise themselves on regional and local level. Although the LSV was not able in the early nineties to set up an effective regional infrastructure within its organisation, specialists managed to organise themselves regionally. In 1996 the medical specialists seem to have become again more united under the pressure of the Biesheuvel proposals and the threat of salaried positions. A new specialist association is announced (merging the LSV with NSF and scientific societies) and in the local experiments (covering around 70% of Dutch hospitals), specialists play an important role in designing their future working conditions. The importance of 'quality management' as an instrument for self-regulation was demonstrated openly by the new chairman of the LSV in November 1995 when in

a debate on television about the future of the free medical profession, he had the LSV book on quality policies of medical specialists 1995 in front of him and showed it to the audience several times as evidence that the profession could be trusted in managing its own affairs whilst being accountable at the same time. The organisation of the medical specialist profession in The Netherlands seems to follow the expectations of Abbott:

> *"We can expect professions to acquire an explicitly federated character – with subsegments organised to deal with flexible workplace development and loosely linked under a general organisation adapted for lobbying."*
> (ABBOTT, 1988:167).

These expectations do not only apply on the macro level of the health-care system but also to the meso level of the hospital. Both management/organisation and professionalisation theory tend to the conclusion that the nature of medical work does not permit any other controlling model than one based on self-regulation. The coming decade will demonstrate whether government, insurers and patients as well as hospital management will be able to accept this conclusion and whether the medical profession will be able, in this last phase of professionalisation in the 20th century, to implement effective quality management methods among its membership. Words like 'partners' and 'staff' need to get a renewed meaning and should come closer to the daily planning and control of medical specialist care.

For the near future we will be able to observe whether synchronisation of economic and strategic interests, a shift of the debate to the local and regional level and the further operationalisation of management participation will create both the structure and culture that is supportive for the further integration of quality management of medical specialist care into hospital quality systems. To achieve this, quality improvements strategies based on change and development seem more appropriate than strategies based on normative models.

8.4.7 *Reflections on the integration of quality management of medical specialist care with the development of quality systems in the hospital from the perspective of innovation-diffusion theory*

When trying to explore the possibilities for integration of 'quality management of medical specialist care' in the 'quality system of the hospital', it helps to repeat the definition of a quality system as provided by the ISO:

> *"The organisational structure, responsibilities, procedures, processes and resources needed to implement quality management."*

This definition illustrates the complexity of creating a quality system in a hospital organisation where 'quality management' is also a task of professionals who operate

within the boundaries of their professional autonomy. It implies that the integration process under discussion relates to the structure in which the professionals' function (medical staff, partnerships, house staff) contrasted with the organisational units in which the hospital has organised itself, responsibilities (responsibilities and accountability of individual specialists and the collective group of specialists towards management), procedures and processes (focus on individual patients versus the focus on care processes for patient groups) and resources (reimbursement of time and skills to perform quality-management activities).

When analysing the possibilities of integration from the perspective of innovation-diffusion theory, one discerns two different diffusion processes on a national level that interfere with specific local diffusion patterns in individual hospitals:

- At the national level there is the long-term diffusion process of quality management of medical specialist care that consists of a series of concepts and methodologies that have been systematically developed and internalised in the medical profession: autopsy meetings, peer review, specific committee activities, guideline development, visitation programmes for partnerships in non-teaching hospitals. Common denominators of all these activities are rationalisation of medical practice (in accordance with the paradigm of natural sciences), self-evaluation of the profession and external accountability (in accordance with theory on professionalisation). This diffusion process is in a way as old as 17th-century post-Cartesian medicine, but has manifested itself since the fifties more openly when medical specialists confined their work to the hospital setting (closed hospitals). The history and development of its various manifestations have been described in detail in the chapters 3 through 7.
- Parallel to this diffusion process of rationalisation strategies in medicine runs the diffusion of concepts and methodologies on rationalisation strategies in management theory. Although many of the concepts and methods have their roots in earlier management theory, the explicit manifestation of quality policies by hospital management became prevalent since the mid-eighties when deregulation and marketisation were key words in government policy and a trade-off had to be found between quality, costs and patient demands. These concepts and methodologies have in common that they take the organisation as the starting point for development and belief in the rationalisation of the care processes realised within the organisation. As has been illustrated in the previous paragraphs this 'quality hype' has resulted in various initiatives that sometimes have a very normative and mechanistic character and sometimes take motivation of employees, cultural interventions and organisational learning as the main focus.

These two diffusion processes manifest themselves at the national level and are supported by government policies as well as by policies from national bodies of specialists and hospital managers. Although the limitations of rationalisation strate-

gies in both medicine (I.E. BERG, 1995) and management (I.E. ARNDT AND BIGELOW, KALUZNY 1995) are discussed in literature, both worlds seem to have enough in common to be attracted to one another. At the national policy level the two diffusion processes have seemingly merged. Policy papers are using identical jargon ('quality systems of professions and institutions'), new laws support the 'system think' (i.e. BIG, WKZ) and can thus be seen as an example of what Brennan and Berwick call 'responsive regulation' (BRENNAN, BERWICK 1996). Synchronisation of political and economic interests is sought through regionalisation and financing systems where the costs of specialist care are integrated in the hospital budget and management participation (see previous paragraphs). Compared with ten years ago the external conditions for a further merging of the ongoing diffusion processes of quality management of medical specialist care and quality systems in hospitals are substantially improved. The question is whether individual hospitals will be able to benefit from this situation. Apart from the long-term 'diffusion waves' described above, every hospital has its specific history with the integration of medical specialists in the hospital organisation. The 'maturation process' of the hospital towards an integrated company of medical specialist care will determine whether opportunities are taken or parties will stay entangled in the web of mutual dependencies, images and personal opinions they have created over the years. As was shown in the NIVEL study, the majority of health-care institutes in The Netherlands is still in its toddler years in developing quality systems: the majority has been involved in projects (specific topics going through the PDCA cycle) and a growing number is increasingly process-oriented (phase 2 of the EFQM model) and a limited number is really implementing quality systems.

A further synergistic diffusion of the concepts and ideas on quality management of medical specialist care and quality systems seems to be dependent on a combination of the following five factors:

Compatibility of concepts and methods with existing ideas and experience of both clinicians and managers

The quality jargon developed over the years tends to become too abstract and complex. The popularity of 'quality' in the eighties in the Dutch health-policy context seems to have been partly a result of the unifying nature of the term: all parties were able to project their wishes and opinions in the initial jargon. When quality policies on national level became more mature over the years, the terminology became more technocratic and at the moment it seems to loose part of its radiance. Like Quality Assurance in the USA in the mid-eighties, the Dutch quality terminology developed in the last ten years is more and more associated with 'laws, rules, systems, certification and annual reports', providing instruments instead of inspiration. The challenge on policy level will be to link the quality debate again with concrete experiences and

problems of patients, practitioners and managers. This might ask for a new generation of policy-makers and renewed infrastructures where the policy debate takes place.

Regionalisation of quality initiatives

As described before, the locus of policy debates on the future of hospitals has gradually shifted from the national to the local and regional level. The present local and regional experiments, with alternative ways of financing medical specialists care, seem to be fertile soil for some change. Quality of care is one of the issues addressed in the discussions between local hospital managers, specialists and insurers (E.G. BREEDVELD ET AL., 1993). Until now these discussions seem to have resulted in proposals for various projects and have not addressed the issue of developing quality systems explicitly. Nevertheless these local fora can in theory be the place where constructive ideas on the integration of existing quality-management activities of the specialists and ideas of hospital management on quality policy are generated and implemented with the support of the insurer. The external policy context is supportive, but it needs sufficient trust among the different partners to built something really new. It will take several more years to evaluate whether these local initiatives have generated real change or are merely functioning as a newly institutionalised policy level which will lose its momentum when it starts producing more technical policy reports and creates its own technostructure.

Skills of hospital management

The use of TQM/CQI theory assumes that hospital managers have sufficient skills as leaders of complex organisations to support the change process. Management in hospitals is a rather young discipline, it is through the budgeting system from 1983 and the ideas of the Dekker report from 1987 that hospital managers had to become increasingly familiar with more industry-oriented theories and skills on organisational development. Quality improvement policies ask for quality managers. Given the present concept and methodologies floating around and personal experience with hospital managers, one of the eminent dangers of the near future is that hospital managers will not develop quality policies as a natural extension of activities within their organisation but as a reaction on external pressure (law on quality in health-care institutes and discussions on certification). This can result in mechanistic adaptation of external models that are more or less top-down introduced in the organisation with the help of an appointed quality co-ordinator or external consultant. These external models are usually of the mechanistic, descriptive and normative type described earlier. These actions are bound to fail if they are not really integrated with the prevailing activities and ideas on quality management in the hospital. They are surely bound to fail if management uses the models as a means to get more grip on the work

of medical specialists.

A more promising approach seems to be the manager who considers professional autonomy as the nucleus quality of the medical specialists (VAN OORSCHOT ET. AL, 1995) and nurtures this quality within commonly agreed economic boundaries instead of fighting it. This manager could relate to theories on organisational learning and managing professionals (ARGYRIS 1992, GARVIN 1993, WEGGEMAN 1992, VAN DELDEN 1992) for obtaining skills to manage medical specialists in such a way that their quality-management activities are concordant with the overall quality system of the hospital organisation. Evidence and experience so far indicates that this approach, focused on human behaviour, group behaviour and culture, with the support of engineering instruments when the problems are identified and recognised as such, creates the most promising (and lasting) results. Experience with peer-review studies (see chapter 6) demonstrates the intrinsic complexities of realising change in working patterns of practitioners where a balance has to be found between increased expertise and organisation of labour in a more bureaucratic setting. Managers should support (and sometimes direct) these problem-solving exercises of professionals instead of ignoring or fighting them.

The future of medical staff and partnerships

Medical staff and partnerships are until now the main infrastructure for quality-management activities of medical specialist care. Rather than dissolving them in new structures, they should be incorporated in the hospital organisation and instead of challenging these structures, a further formalisation of the communication structures and decision-making structures on hospital-wide quality initiatives should be sought. Rather than using the quality system as a lever to create new hospital structures, existing structures should be used for the embedding of the quality system. If restructuring is deemed necessary this should be a common felt need of both the specialists and management alike. Restructuring of labour processes takes place all the time and the art seems to be to take the momentum for restructuring when it is there, instead of trying to force the situation. Present developments around day surgery, ICUs, and emergency rooms demonstrate the need for a moderating role in the division of labour of both the board of the medical staff and hospital management.

Commitment of medical specialists

Effectiveness of quality endeavours (individual or organisational) will not occur unless the players take seriously their personal causal responsibility for creating, maintaining, and changing the systems in which they work. Diffusion of quality concepts and methodologies is fruitless when it does in the end not touch upon the underlying norms and values of professional behaviour. Practice is defined by Argyris as the implementation of a set of ideas in order to achieve intended consequences in

a world of practical affairs (ARGYRIS, 1992 P.391). If quality policies aimed at specialists want to change practice they should have an impact on this set of ideas. There are indications in the empirical material described in chapter 6 and 7 that these 'pre-set ideas' (Argyris calls them 'action maps, the representation of problems, or causal scripts, that individuals use to inform their actions') are changing. Parallel with a strengthening of the scientific basis of effectiveness, ideas on efficiency and patient/process orientation are taken into account in the medical decision-making process. This mindsetting will take time and needs continuous nurturing. It is the author's conviction that management policies, both on the hospital level and the national level, that keep supporting this more profound diffusion process whilst reacting adequately to innovations on the working place of medical specialist, will eventually result in continuous quality improvement. Whether managers and policy-makers will have enough patience and endurance to act accordingly remains to be seen. The analysis provided in this book is hopefully supportive in creating a better understanding of the nature and development of quality management of medical specialist care in Dutch hospitals.

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Epilogue

Quality as a term has a great potential to motivate people. However, when its nature and ways to develop it are made explicit, motivation may change and differences of interest among individuals may influence its realisation in practice. This is also true when one studies quality in health care and exploring the nature and development of quality management of medical specialist care in The Netherlands. This explorative study demonstrates that the context of the health-care system and the position of the medical specialist, both as a member of a professional group and as a member of the hospital organisation, determine the nature and development of quality management. The study shows that quality is a relative concept that derives its meaning from interactions within the medical profession and interactions between the medical profession and other actors in the health-care system, notably hospital management and government. Thus, its meaning and concrete manifestations change over time. With quality management, more formal methods are introduced to plan and/or control quality of care processes in general and medical performance in particular.

Quality management, like quality, is the focus of debates on the goals of health care and the responsibilities for the control of health service delivery.

An analysis of the history of quality management of medical specialist care in The Netherlands shows that over time formalisation of control over professional practice has been influenced by changing views on health care, both inside and outside the medical profession. Over the years, the quality concept has broadened from being mainly focused on medical effectiveness (based increasingly on scientific evidence) towards the inclusion of notions on efficiency (based on economic considerations) and patient satisfaction (both on the individual and collective level). At the same time, different methods of quality management of medical specialist care have developed, starting with basic structural requirements for the quality of professional practice (like training and registration) towards process control (i.e. peer review, practice guidelines) and quality systems, focused on structure, process and outcome (i.e. quality systems in hospitals, visitation programmes of scientific societies). Chapter 3 and 4 illustrate how the nature and development of quality management of medical specialist care in The Netherlands have been shaped by a continuous process of professional responses to internal developments facilitated by external pressure. The need for quality management arose with the changes in the science and technol-

ogy of medicine and its practice as an occupation. However, the speed of concrete actions within the profession was usually influenced by external pressure. The respective boards of national professional organisations (e.g. KNMG, LSV, scientific societies) transformed external pressure into internal pressure on their membership to adapt quality-management methodologies that were already existing as 'innovations' within the professional community. It is remarkable that, contrary to other countries, over the years the principle of self-regulation of the profession has constantly been the dominant government policy. The present policies on quality of care (i.e. *Leidschendam Conferences* 1989, 1990 and 1995, BIG and *Law on Quality of Care in Health-care institutions*) are even so based on the assumption that planning and controlling of medical specialist care is primarily a responsibility of the profession, although mechanisms for accountability should be in place. The government provides a legislative and economic frame and puts pressure on the system. The role of actors may change (i.e. growing importance of care insurers and patient organisations since the end of the eighties), the topic and language of discussions may change (peer review and hospital committees in the seventies, practice guidelines in the eighties and nineties, visitation, performance indicators and quality systems in the nineties), but the underlying dynamics and outcome of the play appear to remain the same. The pushing and pulling result in additional methods for quality management, executed within the realm of the profession itself. Thus the 'quality system' of the medical profession matures and transforms continuously and finds its embedding in the (also changing) structures in which the profession has organised itself.

At present, 'quality' as a term to synthetize the different visions and goals on health-care delivery and outcome and 'management' as a term to synthetize the formal mechanisms to plan and control professional performance (and its consequences) are functional unifying concepts that constitute a common frame for communication between all parties involved. As analysed in chapter 4, the different activities and methods that are a result of this process can be considered as quality systems and, to a certain extent, contain similar elements required for quality systems described in the literature on service industry. Furthermore, these different 'systems', which developed over the years, are linked to each other and can ultimately be considered as the quality system of the medical profession. As discussed in chapter 4, 6 (for peer review) and 7 (for practice guidelines), the dynamics within the profession determine in a considerable degree the format and positioning of the quality-management initiatives. The dynamics between the different (national) professional organisations, representing medical specialists on different nominators (all physicians: KNMG; all specialists: LSV; all employed specialists: LAD; specialists of one specialty: scientific societies; all specialists working in one hospital: medical staff) constitute major explanatory factors for the concrete nature and diffusion of quality management of medical specialist care.

The planning and control of professional performance thus appear to be subject to a formalisation process that results in elements of an overall quality system for the profession in which the positioning of the various elements is highly determined by the interprofessional dynamics geared by external pressure.

Parallel to the development of quality-management activities within the national professional bodies, quality-management initiatives of medical specialists care have been taken in hospitals. As discussed in chapter 5, the integration of the medical specialist in the hospitals in The Netherlands has resulted in a specific infrastructure (medical staff, partnerships, house staff) that constitutes the embedding of many quality-management activities (i.e. peer review in the medical staff and visitation of partnerships). In comparison to other countries, the medical specialist in The Netherlands appears to be strongly linked to the hospital organisation for both his in-patient and out-patient activities. This integration process is analysed in chapter 5 on the level of strategic, tactical and operational activities and relates to professional autonomy in the clinical domain as well as to professional autonomy in the economic and political domain. The analysis shows a history of attempts to improve the relation between specialists and management, where the external context has provided pressure but specific solutions are found within the hospital organisation. Many of the theories on professional organisations as expressed in the literature on administrative sciences have been applied by hospital managers in Dutch hospitals over the years. The solutions that have been implemented (see chapter 5) can also be analysed from the perspective of quality systems in service industry. As is presented in chapter 8, in the nineties the merging of more traditional quality-management activities of specialists and the hospital-wide quality system approach appears to get off the ground. The 'quality system' theories from industry need to be adapted to the realities of professional dominance in the hospital. Vice versa, 'quality systems in hospitals' ask for an organisational design of the hospital, in combination with specific leadership skills of hospital management, that facilitates the integration of quality management of medical specialist care in the overall quality-management activities of the hospital.

The essence of the work of medical specialists lies in applying expertise knowledge on patients problems that are taken care of in the organisational setting of the hospital. The 'why-what-and-how' analysis of peer-review topics in chapter 6 illustrates that problem solving on the operational level of the work of specialists consists of a mixture of knowledge problems and organisational problems. The problems are solved through innovation and standardisation of practice (education as well as the development of local protocols) and are intertwined with organisational issues as addressing the assignment of mutual responsibilities between specialists and between specialists and other professionals as well as with the redesign and formalisation of logistical procedures. The success of these quality improvement initiatives appears to be highly dependent upon the motivation of the medical specialists and the functioning of change

agents and opinion leaders in the medical staff. Clinical leadership appears to be as relevant for quality management of medical specialist care as the leadership skills of hospital managers for introducing quality management in the whole organisation. Similar to the nature and development of quality management within the whole profession, quality management of medical specialists care in the context of the medical staff appears to be nurtured by the changes in medicine and practice, operationalised through methods within the realm of the profession, but it is shaped by the interprofessional dynamics (i.e. the partnership versus the medical staff). The nature and development of quality management of medical specialist care in a given hospital can be better explained through the interactions between specialists and specialties than through the mere interaction between the medical staff and hospital management.

The analysis presented in this study is consistent with more recent publications on medical specialists in hospitals in both the sociological literature (i.e. professionalisation theory) and literature on professional organisations (i.e. management theories and theories on organisational development). In addition to other studies, this analysis puts the focus on the dynamics within the medical profession, both on national level (KNMG, specialist associations, scientific societies) and within the hospital (partnerships, medical staff). It shows that the roots of quality management of medical specialist care can be found in the continuous changes in the knowledge base that underpins professional practice and the necessity of specialists to reorganise their working processes. These working processes become more and more complex and mutual dependency of specialists increases. This leads to a formalisation of professional practice that leaves the control within the professional domain. With hospital management, synergy is sought between quality management of medical specialist care and the quality system of the whole hospital. This process builds on the existing integration of the specialists in the hospital organisation, on system redesign that provides the specialists with more instead of fewer managerial responsibilities and the creation of external conditions for financing that try to achieve more synergy between clinical, economic and political interests of clinicians and hospital managers. An important role of government, insurers and patients organisations appears to be to put pressure on the profession and to stress the necessity of emphasis on additional quality issues and the creation of mechanisms for accountability. This process does, however, not undermine the process of professional self-regulation but influences its focus and speed. The present ideas about government policy (deregulation, decentralisation, self-regulation and regulated markets), management of hospitals (redesign of care processes, hospital culture, learning organisations, management participation, decentralisation, innovation and leadership) and clinical practice (evidence-based practice, formalisation of medical practice within the realm of the profession, formalisation of accountability) all appear to go in the same direction. The formalisation of medical practice will continue, but its success will depend on the extent to which it can build on the existing mechanisms for quality management and

the intrinsic motivation of medical specialists for their work. In the meantime, the legitimacy of self-regulation needs to be established again and again.

Recommendations for government and other national policy-makers

Based on the insights derived from this study the following recommendations can be made:

1 Stick to the concept of responsive regulation, but keep in mind that within a system of a regulated market the responsibility for a government to regulate quality increases. Therefore, quality of health care should become an even more important topic for concern, although the legislative initiatives should remain global. Both the Law on Professional Practice (BIG) and the Law on Quality of Care in Health-care institutions enforce the system approach of quality in health care. Government interference should be geared towards the further development of quality systems and obtaining information on the quality of health care, both within professions and hospitals, whilst optimising the possibilities for an adequate and flexible response when incidents occur.
2 Keep the pressure on professionals and hospitals by making them accountable for their activities and by enforcing the inclusion of the patient perspective in their quality notions.
3 Although some 'health-system redesign' appears to be necessary to address inconsistencies in the present organisation and financing of health care, policy-makers are wise to realise that the complexity of the health-care system is such that no 'blueprint' solution is possible, especially for a multi-faceted concept as quality. Incremental reforms, based on innovations in the health-care field, appear to be most effective. The main question for policy-makers should not be how to increase the health outcomes whilst containing the costs of the health services but how to help the health services (professions and institutions) to develop in such a way that they can improve the quality of their performance. The concepts of TQM and CQI should also be applied on the quality of a health-care system as a whole.
4 There are at least three intrinsic reflexes in the political system that government should try to resist in policies on the quality of care:
   – the first one is to resist the temptation to solve problems and incidents with detailed legislation;
   – the second one is to enforce further bureaucratisation (i.e. creating new reporting procedures and institutions);
   – the third one is to change the labels of a policy process before the policy has had the chance to become a reality.
   Especially the second and third reflexes appear to be relevant at the moment. With new legislation in place and quality falling under the responsibility of policy-makers

who are not necessarily familiar with quality-management theory themselves, new bureaucratic tendencies are already emerging. At the same time, the term 'quality' appears to be a little worn out and has, over the years, created its own accompanying exclusive policy jargon, so the temptation to introduce new labels exists. Although relabelling for a short time may raise interest and motivation, it runs the risk of slowing down the development process of quality systems that are at present maturing. Often, the political calendar has a shorter time span than the time necessary for the introduction of quality systems and the accompanying change processes.

5 In 1996, after seven years of explicit policy-making on quality of care, the definition of quality and its associated terms as developed by the National Council for Public Health seems to loose its expressiveness. To ensure that all actors in the health system adhere more or less to the same definitions, it is advisable to renew the definition – not for academic reasons, but mainly to re-establish common ground in the evolving field of quality-management activities. Standardisation of terminology should be initiated by government and could also prevent a potential clash between the industry-based and health care-based terminology.

Recommendations for hospital managers

1 'Count your blessings': the general situation in The Netherlands with respect to the interaction of medical specialists and hospital management is better than in many other countries. The integration of out-patient and in-patient care in one organisation and professional infrastructures such as the medical staff, partnerships and house staff constitute a basis for mutual collaboration.

2 The EFQM model for the development of quality systems appears to be more appropriate for application in Dutch hospitals than the ISO model. The development of a quality system asks for the integration of both the professional and the hospital-wide perspective and is dependent on the organisational development a hospital has already gone through. Currently, a model that enforces management development in hospitals and that uses the motivation for quality by synthetizing existing elements, appears to be a better fit for Dutch hospitals that at present transform from a project orientation towards a process orientation and system orientation, than a model where system engineering of the production process is the major focus.

3 Motivating medical specialists for quality management requires knowledge of their motives and the care processes they plan and control. A strategy that combines theories on leadership and learning organisations appears to be appropriate for addressing the professional on quality issues. A distinction should be made in mutual roles of management and specialist on strategy, tactical and operational level. Similarly, one should distinguish debates on clinical, economic and political

issues. Clear-cut mutual roles and responsibilities on different issues are a prerequisite for the functioning of quality systems and need to be addressed openly to prevent that quality initiatives themselves become the focus of internal hospital politics. A coaching role of hospital management in this respect is more appropriate than a controlling role.

4 Solving the day-to-day problems, as manifested in the analysis of peer-review activities in chapter 6, is a more valid indicator of the functioning of the hospital than rhetorics on consumer-mindedness in hospital policy plans.

5 Promoting quality management by medical specialists in the hospital can be carried out by using the external conditions and internal possibilities when they are there, rather than relying on the strict implementation of an overall model or theory.

Recommendations to the medical profession (on the national and hospital level)

1 Recognise the existing mechanisms for quality management of medical specialist care for what they are, and improve and build on them rather than replace them.

2 Make sure that there is synergy between the different mechanisms such as re-registration, visitation, guidelines and peer review.

3 Refine the relation between goals and methods and effects in guideline development. Apart from strengthening the scientific basis of the practice guidelines that have been developed by CBO so far, the use of various development methodologies for guidelines for different purposes should be considered. Especially for a strengthening of the link with peer review and visitation, it seems worthwhile to develop, apart from consensus guidelines, practice guidelines that are primarily addressing the problems as identified in the hospitals instead of solving problems in areas where scientific controversy, as identified by scientific societies, exists.

4 To strengthen the links between guidelines, peer review and visitation the development of review criteria and performance indicators, based on nationally established guidelines, should be explored more systematically.

5 The transformation of peer review committees into quality committees should not result in a shift of attention from concrete PDCA cycles around clinical problems towards policy discussions on medical staff level on 'quality theory' and 'quality systems'. Quality policies of a medical staff should expand, especially where they are linked to the hospital policies. However, the concrete audit activities still remain relevant and should be embedded in regular medical practice.

6 The increasing formalisation of medical practice within the realm of the medical profession strengthens rather than weakens the role of both the partnerships and the medical staff as infrastructures for medical specialists. Both are necessary: the tendency to organise care processes by one or more specialties in 'product groups' will enforce the role of partnerships in operational management, and the increasing

emphasis on the hospital as an 'integrated medical-specialist company' will enforce the role of the medical staff in strategy issues. The interprofessional dynamics are perhaps as important for the realisation of the foreseen changes in hospitals as the relation between the profession and the hospital management. A strategy of the national professional organisations that creates the necessary synergy between the economic and political interests of the different specialties and hospital managers will help to promote a further development of quality management of medical specialist care in a bottom-up way, realising synergy between medical and hospital interests through a common culture, a corporate approach and clinical leadership as well as leadership of hospital management.

7 An important element of clinical leadership, both on the national and the hospital level, is the sensitivity for external goals towards the quality of health-service delivery and its outcome. On the national level this means a sufficient responsiveness to the ideas of patients, insurers and politicians on the ideal quality of care. On the hospital level, this means an increasing sensitivity not only for patients and hospital management, but also for the quality notions of the other professions (such as nurses and allied health professionals, but also general practitioners) whose work is increasingly intertwined with the work of medical specialists. Quality initiatives can serve as glue between the different parties in the organisation when the willingness to tackle common problems exists. For the medical profession it would be an act of wisdom to take the initiative to assure that its quality-management activities are synergetic with the ones of other professionals.

   As this study has shown, professionalisation is an important force behind quality-management initiatives. It would be a sign of strength if the various professional groups would be able to achieve consistency between their mutual quality-management initiatives and realise a coherent set of agreements for areas where professionals have to work together and/or professional domains overlap. The formalisation of interprofessional practice could be a next phase in the maturation of quality management of medical specialist care.

The recommendation to the individual specialist is straightforward, but therefore not less valid: do the right things and do them right the first time – then you will be able to keep on doing them and enjoy what you are doing. The setting in which the future medical specialist will practice is bound to become more formalised. However, rather than nurturing the dichotomy between profession and management on one hand and the dichotomy between profession and state on the other, the individual practitioner should focus on the correct application of scientific knowledge and the continuous improvement of the care processes to which he or she contributes. Co-operation and learning are the parents of quality management of medical specialist care.

Utrecht, September 1996

Samenvatting
Summary in Dutch

Kwaliteitsmanagement van medisch specialistische zorg in Nederland
Een verkennende studie naar aard en ontwikkeling

Dit proefschrift beoogt een antwoord te geven op een tweetal vragen: wat is kwaliteitsmanagement van medisch specialistische zorg, en hoe ontwikkelt het zich? De motivatie voor het uitvoeren van deze studie komt voort uit het werk van de auteur als wetenschappelijk stafmedewerker bij het Centraal Begeleidingsorgaan voor de Intercollegiale Toetsing (CBO). Ervaring met het begeleiden van toetsingscommissies van medisch specialisten in ziekenhuizen en de ontwikkeling van landelijke richtlijnen in samenwerking met wetenschappelijke verenigingen vormt de basis van dit proefschrift. Door de jaren heen is de behoefte gegroeid om beide fenomenen nader te duiden, te meer daar sinds het einde van de jaren tachtig ook theorieën en methoden van kwaliteitszorg uit de dienstverlenende industrie steeds meer aan populariteit in de gezondheidszorg winnen. De indruk bestond dat mogelijkheden voor 'kwaliteitsmanagement van medisch specialistische zorg' sterk worden bepaald door de wijze waarop de specialistische zorg in het ziekenhuis is georganiseerd (bijvoorbeeld het bestaan van maatschappen en een medische staf) en de wijze waarop landelijk de beroepsgroep in wisselwerking met andere partijen tot een specifiek kwaliteitsbeleid komt. Dit proefschrift neemt de bestaande structuren en methoden waarmee medisch specialisten hun werkzaamheden bewaken en verbeteren als object van studie. Deze structuren en methoden worden vervolgens vanuit verschillende theoretische invalshoeken geanalyseerd, waarbij de navolgende vier assumpties centraal staan:

- De thans in Nederland bestaande activiteiten van medisch specialisten om de kwaliteit van hun medisch werk te plannen en te beheersen, kunnen worden beschreven in de kwaliteitsmanagementterminologie uit de dienstverlenende industrie.
- Het beleid en de infrastructuur waarin het kwaliteitsmanagement van medisch specialistische zorg is ingebed, kan worden begrepen vanuit de professionalisering van de medisch specialistische beroepsgroep en de organisatorische ontwikkeling van ziekenhuizen zoals deze in de specifiek Nederlandse sociaal-economische context heeft plaatsgevonden.
- Aard en reikwijdte van het huidige kwaliteitsmanagement van medisch specialistische zorg laten zich verklaren vanuit de infrastructuur en het beleid zoals bedoeld in het voorgaande punt.
- Succes en falen van de implementatie van kwaliteitsmanagement van medisch specialistische zorg laten zich verklaren vanuit het perspectief van de innovatie-diffusietheorie.

In het eerste hoofdstuk van dit proefschrift wordt het begrip 'kwaliteitsmanagement van medisch specialistische zorg' nader onderbouwd. Een overzicht wordt gegeven van de veelheid aan definities van kwaliteit, speciaal in relatie tot gezondheidszorg. Gekozen wordt voor een definitie die enerzijds een objectivering van kwaliteit mogelijk maakt, maar die daarnaast kwaliteit vooral ziet als een hoedanigheid van zorg die gerealiseerd *kan* worden. Daarmee komt de nadruk te liggen op de te leveren inspanning om kwaliteit te realiseren, in tegenstelling tot benaderingen waarbij kwaliteit slechts in termen van resultaat wordt beschouwd. Met betrekking tot de term 'management' wordt gekozen voor een definitie waarin het plannen en beheersen van zorg vooropstaan. Dit betekent voor de combinatie 'kwaliteitsmanagement van medisch specialistische zorg' dat het hierbij gaat om alle activiteiten (methoden en structuren) waarmee de medisch specialisten op zowel ziekenhuisniveau als landelijk niveau de kwaliteit van de beroepspraktijk waarborgen.

In hoofdstuk twee wordt de methodologie van de studie uiteengezet. Een overzicht wordt geboden van de verschillende aanvullende theoretische perspectieven die zullen worden gebruikt. Voorts ligt de nadruk op het construeren van een raamwerk met vragen die bij het analyseren van het empirisch materiaal in de verschillende hoofdstukken systematisch zullen worden beantwoord.

Het derde hoofdstuk behandelt de ontwikkeling van specialistische geneeskunde in ziekenhuizen in Nederland. Een beschrijving van de historische context van het huidige Nederlandse gezondheidszorgstelsel maakt duidelijk hoe in de loop van diverse perioden de onderlinge wisselwerking tussen medische beroepsgroep, ziekenhuisorganisatie en overheidsbeleid heeft geleid tot de huidige positionering van specialisten in ziekenhuizen. Als belangrijke constituerende factoren worden geïdentificeerd: de

incorporatie van specialisten in de Nederlandsche Maatschappij tot bevordering der Geneeskunst (NMG), de keuze voor 'gesloten ziekenhuizen', medische staven en maatschappen in de jaren vijftig, de nadruk op planning in de jaren zeventig, de invoering van ziekenhuisbudgettering en pogingen tot inkomensregulering van specialisten in de jaren tachtig en, ten slotte, de aanzetten tot verdere incorporatie van specialisten in de ziekenhuisorganisatie onder de vigeur van een meer op marktwerking georiënteerde gezondheidszorg in de jaren negentig. Betoogd wordt hoe professionalisering van de medisch specialistische beroepsgroep en de organisatieontwikkeling van ziekenhuizen voortdurend worden gemodelleerd door enerzijds de interne dynamiek van specialisten en ziekenhuis en anderzijds de pogingen tot beïnvloeding door de overheid op grond van sociaal-economische overwegingen. Geïllustreerd wordt hoe instituties en activiteiten die nu onder de noemer van kwaliteitsmanagement worden geschaard, voortdurend aan deze tweeledige dynamiek onderhevig zijn.

Een en ander wordt in het vierde hoofdstuk verder uitgewerkt met betrekking tot vier fenomenen die momenteel op landelijk niveau sterk met kwaliteitsmanagement van medisch specialistische zorg verbonden zijn. Allereerst worden de aard en de ontwikkeling van de medisch specialistische opleiding en de (her)registratie geanalyseerd. Aangetoond wordt hoe het huidige systeem voor de waarborging van de opleiding en beroepsuitoefening zich goed laat begrijpen vanuit het industriële model van een kwaliteitssysteem. Een gelijksoortige analyse wordt gegeven van het Nederlandse tuchtrechtsysteem en de aan kwaliteitszorg gerelateerde activiteiten van medisch wetenschappelijke verenigingen. Deze laatste analyse wordt verricht op basis van formele rapportages in verschillende perioden. Ten slotte wordt nader ingegaan op de ontstaansgeschiedenis van de intercollegiale toetsing voor medisch specialisten in ziekenhuizen. Aangegeven wordt hoe de aard van de sinds 1976 gepropageerde intercollegiale toetsing sterk samenhangt met het functioneren van de medische staven en de daarbinnen gepercipieerde (veelal klinisch georiënteerde) problemen en hoe de ontwikkeling van het programma alles te maken heeft gehad met de mogelijkheden tot zelfregulering van medisch specialisten na vergeefse pogingen van de overheid tot het opzetten van een meer externe vorm van controle.

Hoofdstuk vijf gaat in op de concrete kwaliteitsmanagementactiviteiten van medisch specialisten in ziekenhuizen. Allereerst wordt betoogd dat zowel de professionaliseringstheorieën als de managementtheorieën gelijksoortige oplossingen aandragen voor de spanning die bestaat tussen professie en management in professionele bureaucratieën. Een overzicht wordt gegeven van deze theoretische oplossingen en de praktische oplossingen zoals deze in Nederlandse ziekenhuizen zijn voorgesteld en/of uitgevoerd. Aangegeven wordt hoe de aard en de ontwikkeling van kwaliteitsmanagement van medisch specialistische zorg mede worden bepaald door de wijze waarop wordt omgegaan met het professie/management-dilemma. Het functioneren van medische staf, maatschappen en *house staff* krijgt extra aandacht: zij vormen de infrastructuur

waarbinnen de diverse vormen van kwaliteitsmanagement hun beslag krijgen. Naast een beschrijving en analyse van kwaliteitsmanagement van medisch specialistische zorg op het operationele niveau (bijvoorbeeld overdracht, statusvoering en visite lopen), biedt het hoofdstuk een analyse van de diverse aan kwaliteitszorg gerelateerde commissieactiviteiten, zoals de necrologiecommissie, de meldingscommissie incidenten, de infectiecommissie en de geneesmiddelencommissie. Ten slotte wordt geanalyseerd op welke wijze ook op het strategische niveau van de medische staf aan kwaliteitsmanagement vorm wordt gegeven. De diverse analyses laten zien dat niet alleen de interactie tussen specialisten en management (veelal onder externe druk), maar ook de dynamiek tussen specialismen bepalend is voor de vormgeving van kwaliteitsmanagement.

Een meer gedetailleerde analyse van de aard en de ontwikkeling van kwaliteitsmanagement rond specifiek medisch specialistische onderwerpen wordt in hoofdstuk zes op basis van empirisch materiaal gegeven. Dit hoofdstuk stelt de bevindingen van 101 prioriteitenzittingen met groepen medisch specialisten in 51 ziekenhuizen tussen 1977 en 1992 ten behoeve van het selecteren van onderwerpen voor intercollegiale toetsing centraal. De analyse toont onder meer aan dat de gekozen onderwerpen evenzozeer gericht zijn op de wetenschappelijke vraag 'wat' te doen als op de meer organisatorische vraag 'hoe' een bepaalde praktijk uit te voeren. Voor een twintigtal onderwerpen wordt vervolgens aangegeven waar de feitelijke problemen liggen en hoe over het realiseren van een oplossing wordt gedacht (bijvoorbeeld pre-operatief onderzoek, gebruik van anticoagulantia, statusvoering, intercollegiaal consult, bloedtransfusiebeleid, onterecht laboratoriumonderzoek en reanimatiebeleid). De achterliggende managementproblemen van de betreffende onderwerpen hebben betrekking op verantwoordelijkheidstoedeling, communicatie en logistiek en zijn vooral gericht op medische effectiviteit en efficiëntie. De ervaringen met intercollegiale toetsing in het algemeen en prioriteitenzittingen in het bijzonder worden begrijpelijk wanneer zij worden geplaatst in het kader van professionaliseringstheorieën (bijvoorbeeld domeinafbakeningen tussen specialismen), managementtheorie (bijvoorbeeld het functioneren van de medische staf in de richting van maatschappen en directie) en de innovatiediffusietheorie (bijvoorbeeld de rol van sleutelfiguren in de staf en de professionele aard van de innovatie).

Een analyse heeft plaatsgevonden van de uitingen van kwaliteitsmanagement op ziekenhuisniveau (toetsingsstudies) en van de uitingen van kwaliteitsmanagement op landelijk niveau (richtlijnen voor de klinische praktijk zoals opgesteld door middel van een landelijke consensusbijeenkomst). Hoofdstuk zeven geeft een beschrijving van de methodiek van richtlijnontwikkeling in het algemeen en het consensusontwikkelingsprogramma van het CBO in het bijzonder. Het biedt een korte evaluatie van het bestaande consensusontwikkelingsprogramma en behandelt voorts een tekstanalyse van 33 richtlijnen zoals deze tussen 1982 en 1992 zijn ontwikkeld. Aannemelijk wordt gemaakt dat de veelheid aan doelstellingen die aan de landelijke richtlijnontwikkeling

wordt verbonden en de nadruk op de wetenschappelijke borging van de uitspraken een vertaling van landelijke richtlijnen in lokale criteria ten behoeve van intercollegiale toetsing noodzakelijk maken. Tevens wordt een aanscherping in de relatie tussen doel, methode en effect van richtlijnontwikkeling bepleit. Een nadere analyse van het managementprofiel van de 33 richtlijnen maakt duidelijk dat hier, evenals bij de onderwerpen voor intercollegiale toetsing, evenveel aandacht lijkt te bestaan voor de beantwoording van de (wetenschappelijke) 'wat'-vraag als voor het bereiken van overeenstemming over de meer organisatorische aspecten die voortkomen uit de beantwoording van de 'hoe'-vraag. Overigens blijken de managementprofielen van de diverse richtlijnen onderling sterk te verschillen en kunnen sommige richtlijnen achteraf beschouwd beter worden opgevat als een verzameling uitspraken over de wetenschappelijke stand van zaken dan als praktische handvatten voor het ondersteunen van medisch specialistische besluitvorming en handelen. Evenals bij de beoordeling van de resultaten van de prioriteitenzittingen kan hier de aard van de richtlijnen worden begrepen vanuit professionaliseringstheorieën (bijvoorbeeld formalisering van de geneeskundige kennis, bekrachtiging van beroepsdomeinen van specialismen) en kunnen de (on)mogelijkheden tot implementatie van de richtlijnen goed worden verklaard met behulp van de innovatie-diffusietheorie.

In hoofdstuk acht wordt niet langer de medisch specialist als uitgangspunt van beschouwing genomen, maar wordt het kwaliteitsbeleid van het gehele ziekenhuis verkend. Aangetoond wordt, mede op basis van diverse inventarisaties, hoe kwaliteitsmanagement in ziekenhuizen deel uitmaakt van de algehele managementontwikkeling in Nederlandse ziekenhuizen. Vanuit dit managementperspectief wordt de ontwikkeling van 'kwaliteitssystemen' nader toegelicht en worden kanttekeningen geplaatst bij de bruikbaarheid van industriële modellen voor kwaliteitssysteemontwikkeling, zoals het ISO-model en het EFQM-model.

Vervolgens wordt op basis van de in dit proefschrift beschreven inzichten over de aard en ontwikkeling van kwaliteitsmanagement van medisch specialistische zorg aangegeven hoe het kwaliteitsmanagement van medisch specialisten zich verhoudt tot het vanuit het ziekenhuis-brede perspectief beoogde kwaliteitssysteem. Gesteld wordt dat de positie van de specialist in het ziekenhuis ten aanzien van zowel zijn politieke, economische als klinische autonomie hierbij bepalend is. Geconcludeerd wordt dat synergie wel degelijk mogelijk is indien bij de systeemontwikkeling in voldoende mate rekening wordt gehouden met de achterliggende dynamiek van professionalisering en indien door de directie een managementstijl wordt gehanteerd die zich binnen bewust gekozen structuren richt op het realiseren van een cultuur waarin condities worden geschapen voor kwaliteitsmanagement van medisch specialistische zorg als een proces van continue verbetering.

Kwaliteitsmanagement van medisch specialistische zorg blijkt primair te bestaan uit de voortschrijdende explicitering en formalisering van de beroepspraktijk in de

ziekenhuisorganisatie en manifesteert zich in een scala aan beslissingsondersteunende technieken en procesbeheersingstechnieken. Deze formalisering wordt gevoed door veranderingen binnen de geneeskunde en krijgt haar beslag door de professionaliseringsdynamiek binnen de medische beroepsgroep enerzijds (KNMG, LSV, wetenschappelijke verenigingen) en de dynamiek tussen specialismen onderling en in wisselwerking met de ziekenhuisorganisatie anderzijds. De rol van de overheid lijkt vooral te bestaan uit het creëren van randvoorwaarden en het onder druk houden van de ontwikkelingen. Het principe van zelfregulering blijkt evenwel door de jaren heen een constante factor te zijn. De spelregels rondom de totstandkoming van medisch specialistische zorg lijken niet wezenlijk te veranderen en hebben in de loop der jaren geleid tot een toenemende en aanvullende hoeveelheid aan kwaliteitsmanagement-activiteiten. Dit betekent niet dat de kwaliteit van het spel zelf altijd optimaal is geweest. Met het oog hierop wordt in de epiloog een aantal aanbevelingen gedaan in de richting van overheid, ziekenhuismanagement en beroepsorganisaties van specialisten.

List of abbreviations

ACP	American College of Physicians
AGIO	assistent-geneeskundige in opleiding
AGNIO	assistent-geneeskundige niet in opleiding
AHA	American Hospital Association
AHCPR	Agency for Health-care policy and Research
AMA	American Medical Association
ANDEM	Association Nationale pour le Développement d'Evaluation Médicale
ARBO	arbeidsomstandigheden
ASA	American Society of Anaesthesiologists
ASV	Amsterdamse Specialisten Vereniging; Academische Specialisten Vereniging
AWBZ	Algemene Wet Bijzondere Ziektekosten
BIG	(Wet op de) beroepen in de individuele gezondheidszorg
BMA	British Medical Association
CBO	Centraal Begeleidingsorgaan voor de Intercollegiale Toetsing
CC	Centraal College
CCKL	Coördinatiecommissie voor kwaliteitsbeheersing van laboratoriumonderzoek
CDC	Consensus Development Conference
CMA	Canadian Medical Association
CME	Continuous Medical Education
COMAC	Comité Médicale d'Action Concertée (EU research programme)
COTG	Centraal Orgaan Tarieven Gezondheidszorg
CQI	Continuous Quality Improvement
CVA	Cerebrovasculair accident
CvB	College van Beroep
DNR	Do-not-resuscitate
DRG	Diagnosis-Related Group
DHI	Danish Hospital Institute
DVT	deep-venous thrombosis
FOG	Financieel Overzicht Gezondheidszorg
FONA	fouten en near-accidents
FOZ	Financieel Overzicht Zorg

GP	General Practitioner
GVBZ	Geneeskundige Vereeniging ter Bevordering van het Ziekenhuiswezen
HRC	Huisartsen Registratie Commissie
ICU	Intensive Care Unit
IKC	Integraal Kankercentrum
IoM	Institute of Medicine
ISO	International Standardisation Organisation
JCAHO	Joint Commission for the Accreditation of Hospital Organisations
KNMG	Koninklijke Nederlandsche Maatschappij tot Bevordering der Geneeskunst
LPCP	Landelijk Patiënten Consumenten Platform
LSV	Landelijke Specialisten Vereniging
MANS	Management en Arbeid Nieuwe Stijl
MRSA	multi-resistant *Staphylococcus aureus*
NHG	Nederlands Huisartsen Genootschap
NIH	National Institutes of Health
NIVEL	Nederlands Instituut voor Onderzoek in de Eerste Lijn
NNI	Nederlands Normalisatie Instituut
NMG	Nederlandse Maatschappij ter Bevordering van de Geneeskunst
NPCF	Nederlandse Patiënten Consumenten Federatie
NRV	Nationale Raad voor de Volksgezondheid
NSG	Nederlands Specialisten Genootschap
NSF	Nederlandse Specialisten Federatie
NVA	Nederlandse Vereniging voor Anesthesiologie
NVZ	Nederlandse Vereniging voor Ziekenhuizen
NZI	Nederlands Ziekenhuis Instituut
NZF	Nederlandse Zorg Federatie
NZR	Nederlandse Ziekenhuis Raad
OTA	Office for Technology Assessment
OR	operation room

PACE	Project Accreditering Ziekenhuizen
PALGA	pathologisch-anatomisch landelijk geautomatiseerd archief
PDCA	Plan-Do-Check Act
QA	Quality Assurance
RGO	Raad voor Gezondheidszorg Onderzoek
RIVM	Rijks Instituut voor Volksgezondheid en Milieu
SDU	Statens Beredning för Utvärdering (Swedish Council on Technology Assessment)
SIG	Stichting Informatievoorziening Gezondheidszorg
SRC	Specialisten Registratie Commissie
STAT	statum
STG	Stichting Toekomstscenario's Gezondheidszorg
SWIFT	surgical wound infections surveillance programme
TNO	Instituut voor Toegepast Natuurwetenschappelijk Onderzoek
TQM	Total Quality Management
UTC	urinary-tract catheterisation
VPA	Vijf-partijen-akkoord
VSNU	Vereniging van Samenwerkende Nederlandse Universiteiten
VTV	Volksgezondheid Toekomst Verkenningen
WGBO	Wet op de Geneeskundige Behandelingsovereenkomst
WHO	World Health Organisation
WIP	Werkgroep Infectie Preventie
WIRZI	Werkgroep Infectieregistratie Ziekenhuisinfecties
WTG	Wet Tarieven Gezondheidszorg
WVG	Wet Voorzieningen Gezondheidszorg
WVC	Welzijn Volksgezondheid en Cultuur (Ministerie van)
WZV	Wet Ziekenhuis Voorzieningen
ZN	Zorgverzekeraars Nederland

Acknowledgements

There are similarities between writing a doctoral thesis and composing an opera. Both ask for a combination of creativity and endurance and both are based on one or more central themes told through a story. The consistency in the musical expression of the emotions of the various characters and their interaction in the opera matches with the logic, validity and generalizability brought forward in the argumentation in a dissertation. Although I will never compose an opera, I am enthusiastic about this art form which combines the best of music and theatre. The music of many an opera accompanied the writing of this thesis. Although not my favourite one, the Wagner opera *Die Meistersinger von Nürnberg* appeared to be the most appropriate companion. It relates to the medieval meaning of performing a 'masterpiece' that may be used to judge if the performer is suitable to become a member of the academic guild.

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Curriculum vitae

Niek Klazinga (1957) attended Atheneum-B in Leeuwarden. He started studying biology in 1975 and medicine in 1976 at the Groningen State University. In 1984, he finished his medical training. Since 1985, he has been a (senior) scientific staff member at CBO, the Dutch organization for quality assurance in hospitals. His work includes supporting medical specialists with peer-review activities and practice-guideline development through consensus conferences. Since 1990, he has been project leader of a concerted action programme on quality assurance in European hospitals under the aegis of the European Union (COMAC, 1990-1993, BIOMED, 1994-1997).

Between 1989 and 1995, he was a board member of the Royal Dutch Medical Association (KNMG); for several years he chaired its committees on quality of care, health-manpower planning and medical education. Since 1994, he has been working part-time as a lecturer at the Department of Health Policy and Management (iBMG) at the Erasmus University Rotterdam. His work includes research projects related to quality of care and educational activities in the field of health-services research, notably on quality of care and international health care. Niek Klazinga, member of several national committees related to health policy and health-services research, has performed various consultancies for the WHO and the Council of Europe. Furthermore, he is a member of the scientific council of ANDEM (Paris) (since 1992) and a member of the advisory council of the International Society for Quality in Health Care (ISQA).