

MR SVEN VAN EGMOND (Orcid ID : 0000-0002-1323-4928)

DR MARLIES WAKKEE (Orcid ID : 0000-0003-4064-3572)

PROFESSOR TAMAR NIJSTEN (Orcid ID : 0000-0001-9940-2875)

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Factors influencing current low-value follow-up care after basal cell carcinoma and suggested strategies for de-adoption: a qualitative study

Running head: Factors influencing current low-value follow-up care after basal cell carcinoma and suggested strategies for de-adoption

S. van Egmond^{1,2}, M. Wakkee¹, A. van Rengen³, M.T. Bastiaens⁴, T. Nijsten¹, M. Lugtenberg^{1,2}

¹ Department of Dermatology, Erasmus MC Cancer Institute, Rotterdam, The Netherlands

² Department of Public Health, Erasmus MC University Medical Center, Rotterdam, The Netherlands

³ Department of Dermatology, Mohs Klinieken, Dordrecht, The Netherlands

⁴ Department of Dermatology, Elisabeth-TweeSteden Hospital, Tilburg, The Netherlands

Corresponding author: M. Wakkee

E-mail: m.wakkee@erasmusmc.nl

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What's already known about this topic?

- Basal cell carcinoma (BCC) is the most common cancer in Caucasian individuals, and worldwide incidence rates are increasing.
- Providing follow-up care to low-risk BCC patients is often not recommended in national guidelines and can be considered as low-value care.
- Currently, dermatologists seem to provide more follow-up care to BCC patients than recommended for reasons not well understood.

What does this study add?

- Two main contributing factors reported by dermatologists to provide low-value follow-up care were complying with patient preferences and a lack of trust in general practitioners (GPs) to identify suspicious lesions.
- Patients consulting dermatologists also expressed a lack of trust in GPs, and whereas part of the BCC patients preferred receiving periodic follow-up care, other patients indicated to find follow-up care unnecessary.
- Several strategies for de-adoption were suggested, of which educating patients was identified as potentially effective by dermatologists and patients.

What are the clinical implications of the work?

- Educating patients with improved disease information and instructions on self-examination may reduce the need for follow-up care among patients, and in turn, result in the reduction of follow-up visits provided by dermatologists.
- Educating GPs in skin cancer care as well as realising appropriate reimbursement may also be effective in de-adopting low-value follow-up care.

Summary

Background

Providing follow-up to low-risk basal cell carcinoma (BCC) patients can be considered as low-value care. However, dermatologists still provide substantial follow-up care to this patient group, for reasons not well understood.

Objectives

The aim of this study was to identify factors influencing current BCC follow-up practices among dermatologists and suggested strategies to de-adopt this low-value care. In addition, views of patients regarding follow-up care were explored.

Methods

A qualitative study was conducted consisting of 18 semi-structured interviews with dermatologists and three focus groups with a total of 17 low-risk BCC-patients who had received dermatological care. The interviews focused on current follow-up practices, influencing factors, and suggested strategies to de-adopt the follow-up care. The focus groups comprised preferred follow-up schedules and providers as well as content of follow-up. All (group)interviews were transcribed verbatim, and analysed by two researchers using Atlas.ti software.

Results

Factors influencing current follow-up care practices among dermatologists included complying with patients' preferences, lack of trust in general practitioners (GPs), financial incentives and force of habit. Patients reported varying needs regarding periodic follow-up visits, preferred to be seen by a dermatologist and indicated a need for improved information provision. Suggested strategies by dermatologists to de-adopt the low-value care encompassed educating patients with improved information, educating GPs to increase trust of dermatologists, realising appropriate financial reimbursement and informing dermatologists about the low-value of care.

Conclusions

A mixture of factors appear to contribute to current follow-up practices after low-risk BCC. In order to de-adopt this low-value care, strategies should be aimed at dermatologists, GPs as well as patients.

Introduction

Basal cell carcinoma (BCC) is the most common cancer in Caucasian people, and incidence rates are increasing worldwide.¹ It is a slow growing tumour which seldom metastasises and is mostly treated by a conventional excision.^{2,3,4} Although BCC patients have an increased risk of getting a subsequent BCC,¹ several European BCC guidelines try to identify high-risk patients for follow-up depending on patient and tumour characteristics.⁵⁻⁷ As evidence is lacking that providing follow-up care to (low-risk) BCC patients leads to improved patient outcomes, BCC guidelines increasingly advise against annual follow-up after treatment of a single 'low-risk' BCC (i.e. primary BCC, smaller than 2 cm, located outside the H-zone and has a nodular or superficial subtype).⁵⁻⁷

Due to rising healthcare costs and finite recourses, policymakers focus more on de-adopting low-value care, which concerns healthcare that is of little or no value to the patient and consequently should not be provided routinely.⁸⁻¹¹ Several initiatives on de-adoption of care have been initiated resulting in lists of low-value services, such as the 'Choosing Wisely' lists, identifying potential candidates for de-adoption.^{8,12-14} Since follow-up for low-risk BCC patients can be considered as low-value care, it was included in the Dutch list of low-value services (*Manuscript in preparation*).

Despite several European guidelines not recommending it, dermatologists seem to provide follow-up care to this large patient group. The number of newly diagnosed BCCs in the Netherlands is estimated to exceed 50.000 in 2020,¹ and almost 50 percent of these can be considered low-risk.⁴ A

Dutch study showed that low-risk BCC patients receive, on average, a total of 3.8 follow-up visits in three years⁴ and a study from the UK study showed that after complete excision of a BCC outside the central 'T' area of the face a quarter of the dermatologists reviewed it more than once.¹⁵ The underlying reasons of dermatologists for providing follow-up care to this patient group are thus far poorly understood.

We conducted present qualitative study as important first step of an intervention study, which aims to reduce the number of low-value follow-up visits of low-risk BCC patients by Dutch dermatologists. The aim of this study is to identify factors influencing current low-value BCC follow-up practices among dermatologists and suggested strategies for de-adoption. In addition, views and preferences of patients regarding follow-up care were explored as they are important stakeholders in the de-adoption process.

Methods

Study setting

In the Netherlands, medical specialists can work either in a partnership within a hospital paid under fee-per-service (54% of specialists in 2015) or on salary (46% in 2015, mostly in academic hospitals).

A small minority of physicians also work in an independent sector treatment centre (ISTC).¹⁶ These different payment systems could lead to different financial incentives for physicians.¹⁷ The average price of a follow-up visit at the dermatologist in the Netherlands in 2018 was 100 Euro.¹⁸

Study design and methodological considerations

A qualitative study was conducted consisting of 18 individual semi-structured interviews with dermatologists and three focus groups with a total of 17 low-risk BCC patients (varying from five to six per session). This qualitative design was chosen because it enabled us to obtain information about behaviour, underlying motivation, and needs and preferences of all stakeholders.¹⁹

Selection of participants

Interviews

To select participants, a purposeful sampling method was used,²⁰ in which information-rich dermatologists known by the authors were invited to participate in an interview. Using this method, we strived for maximum variation in terms of the following relevant characteristics of the target group: types of medical centres in which dermatologic care is provided in the Netherlands (ISTCs, peripheral hospitals and academic hospitals), gender, knowledge of skin cancer and years of working experience. Initially, five dermatologists were interviewed as part of a pilot. This was ultimately extended to 18 dermatologists in total. Potential participants received an invitation by email, containing an information leaflet about the study. Potential participants could register for an individual interview by contacting the researchers.

Focus groups

One focus group was organised at each of the three types of medical service centres. To select participants, electronic patient records from an ISTC (Mohs Klinieken), a peripheral hospital (Elisabeth-TweeSteden hospital) and an academic hospital (Erasmus MC) were screened. Patients were selected if being treated for a low-risk BCC (i.e. non-aggressive subtype, outside the 'H-zone', smaller than 2cm and primary tumor²¹) in the past year. Patients with previous skin malignancies and non-Dutch speakers were not invited, as were patients who did not seem fit enough to join a focus group based on their age and comorbidities. Invitation letters were sent to their home address, containing an invitation and information leaflet. They were offered a gift voucher of 40 Euro to compensate for participating, as stated in the information leaflet. Patients could sign up for the focus group by contacting the researchers.

Data collection

Interviews

All interviews were conducted by an experienced qualitative researcher (ML): eleven were held face to face at the healthcare provider's working place and seven were conducted by phone.

A predefined topic list was used to structure the interview, consisting of the following main themes: current practices regarding BCC follow-up care, factors influencing providing follow-up care, and suggested strategies to de-adopt low-risk BCC follow-up care (See Appendix A). The original topic list also included management of actinic keratosis and squamous cell carcinoma, however, this part falls outside the scope of the current study.

Focus groups

The three focus groups were held at the centres where the patients were treated (Erasmus MC, Elisabeth-TweeSteden hospital and Mohs Klinieken). The sessions were moderated by experienced moderators of focus groups (ML and SD) and co-chaired by a physician independent of the hospitals (SvE).

In each focus group session, patients had a semi-structured discussion about needs and preferences regarding BCC treatment and needs and preferences regarding BCC follow-up care. In this study, we only focused on BCC follow-up care. A predefined topic list was used (See Appendix A) to structure the discussion, which included the following main themes: general needs and preferences regarding follow-up care, preferred follow-up schedules, preferred types of healthcare providers and areas for improvement of care. To prevent the less confident participants from withholding their opinion, the moderator made sure that everyone was able to say something and explicitly stated that opinions are never right or wrong.

Both the dermatologists and patients provided written informed consent and gave permission to audio-tape the session. In addition, they filled out a small questionnaire to collect socio-demographic information (e.g. age, gender).

Data processing and analysis

All interviews (n=18) and focus groups (n=3) were transcribed verbatim. Next, all identifying characteristics were removed from the transcripts and they were imported into AtlasTi 8.0, a professional tool designed for qualitative data analysis.

Two researchers (ML and SD or SvE) independently studied and coded the first three transcripts (two dermatologist interviews and one patient focus group). Different interpretations of codes were discussed and redefined until agreement was reached, which resulted in a preliminary coding scheme. The remaining 18 transcripts were coded by ML or SvE and checked by either SD, SvE or ML. Disagreements were discussed until consensus was reached. After 18 interviews with dermatologists and three focus groups with patients, thematic saturation, defined as when little or no changes to the codes were made, was reached for all covered research areas.

After the initial coding process the analyses proceeded by the iterative and interpretive process of constant comparison. The final codes were discussed and emerging themes were grouped. The information in each category of factors was reflected on and interpreted jointly. Inter-observer reliability was tested by group discussions (on meaning) of codes and relationships between codes. This resulted in the identification of core categories of factors influencing current low-risk BCC care and strategies to de-adopt it. In addition, core themes of patients regarding their needs and preferences on follow-up care emerged.

Ethical considerations

Ethical approval for this study was obtained from the Medical Ethical committee of the Erasmus MC (MEC-2016-204).

The current study has been designed and reported in accordance with SRQR (Standards for Reporting Qualitative Research) recommendations.²²

Results

Description of participants

The characteristics of the participating dermatologists and low-risk BCC patients are displayed in Table 1.

Factors influencing current low-value BCC follow-up practices among dermatologists

Five types of factors emerged as influencing current low-value follow-up care among dermatologists.

Complying with patient preferences and needs

According to the dermatologists, patients visiting their practices often prefer follow-up visits as this is reassuring to them after their skin cancer diagnosis. Another reason, according to dermatologists, is the lack of trust by patients in their GP, as he or she will be the first person of contact for the patient after being discharged from follow-up. Dermatologist indicated to comply with these preferences, for example by seeing patients once a year, or to provide follow-up visits to the patients until they are confident enough to do it on their own. In addition, dermatologists indicated that their predecessor often provided annual follow-up visits to the patients creating an unnecessary habit. This makes it hard for them to explain to patients that they do not need follow-up visits anymore and they rather avoid these discussions (Box 1).

Lack of trust in GPs to recognise suspicious lesions

Another factor contributing to providing low-value follow-up practices to patients is the lack of trust among dermatologists in GPs to adequately recognise suspicious skin lesions. They believe that GPs lack knowledge of skin cancer and do not see enough skin cancer to establish sufficient experience. The dermatologists indicated that they often receive referrals suggesting poor diagnostic skills of the GPs. As a result, dermatologists indicated to sometimes prefer continuing providing follow-up to low-risk BCC patients themselves, rather than making the GP the first person of contact for the patient. However, some dermatologists reported that discharging the patient depends on the expertise of the particular GP of the patient (Box 2).

Believes in the usefulness of follow-up visits

As patients have a high chance of a subsequent BCC, follow-up visits are useful, according to some dermatologists. In addition, the usefulness of providing follow-up care to patients was reported for patients who, they believe, are not capable enough to self-examine their skin. Follow-up visits are sometimes provided by dermatologists as a means to educate patients, until they are believed to be capable of performing checks themselves (Box 3).

Financial incentives to perform follow-up visits

Generally, dermatologists reported not to be influenced by the financial incentives themselves, but indicated to know other dermatologists that are. Reasons reported were the need to reach certain targets within hospital partnerships and personal gain. Particularly, dermatologists indicated that their predecessors were influenced by financial incentives, but these incentives were thought to be still present today (Box 4).

Force of habit

Providing follow-up care to low-risk BCC patients used to be standard care, and dermatologists reported that when a guideline changes it is hard to subsequently change common daily practice. They believe this is particularly true for older dermatologists, whereas younger dermatologists generally adhere better to current guidelines (Box 5).

Patient views and preferences regarding BCC follow-up care

Three main themes emerged from the focus groups with low-risk BCC patients concerning follow-up care.

Varying needs with regard to regularity of follow-up care and skin examination

Some low-risk BCC patients, who were all treated by a dermatologist in secondary care, reported a preference for yearly follow-up visits. They indicated that – after being shocked to hear their diagnosis – a yearly check-up would reduce their anxiety. They prefer appointments to be pre-scheduled, to reduce the threshold to contact their dermatologist. In addition, initiating an appointment makes some patients feel like a nag. In terms of content of the follow-up visits, these patients indicated they would like to receive a full body skin examination (FBSE) during the follow-up visit. They find it hard to self-examine their skin and FBSEs performed by dermatologists gives them more confidence about their skin.

However, some patients indicated they find follow-up care not necessary. As a result of the very low chance of a BCC to metastasize, they believe self-examination of their skin is sufficient. They stated that regular follow-up visits should not be imposed to patients and are not worth the associated costs (box 6).

Overall preference for a dermatologist to perform the follow-up visits

Patients in a secondary care setting overall prefer a dermatologist to perform follow-up visits

because of their specialisation, whereas they consider the GP to be a generalist. As a result, patients have more confidence in dermatologists and also believe that dermatologists take them more seriously than GPs.

However, some patients stated that follow-up visits may also be performed by GPs as long as they have received appropriate skin cancer education, know their limits and refer to dermatologists when needed. In addition, some patients reported to prefer the GP to perform the follow-up visits. They mentioned that GPs are closer to home and more accessible than dermatologists (Box 7).

Need for improved written information provision

In general, patients reported to be satisfied with the information on skin cancer and self-examination as received - mostly orally - from the dermatologist. However, patients indicated a need to receive more written hand-outs information about skin cancer and self-examination, as they find it hard to remember everything the dermatologist has said during consultation. They also indicated that it may be useful to provide pictures of skin cancer on hand-outs to improve the instructions on self-examination. They prefer to receive specific information from dermatologists rather than having to search the internet themselves for more information, as this often scares them (box 8).

Suggested strategies to de-adopt low-value follow-up care by dermatologists

Four types of strategies suggested by dermatologists emerged from the data to de-adopt low-value follow-up care.

Educating patients with improved information

According to dermatologists, explaining to patients that follow-up care is not needed and explaining how to self-examine their skin, will reduce their anxiety and need for follow-up care. Dermatologists suggested that this could be achieved by expanding information and explanation to patients during consultation. Improved hand-outs for patients with more information about skin cancer and self-examination was reported to make it easier for them to discharge patients from follow-up (Box 9).

Educating GPs to increase trust of dermatologists and patients

Educating GPs in skin cancer care was also suggested as a strategy by dermatologists to facilitate the de-adoption of low-value follow-up care. Increasing the trust of both dermatologists and patients in GPs will ease discharging patients from follow-up. Dermatologists reported that, in particular, the diagnostic accuracy of the GPs should be improved. For example, by taking more biopsies in order to learn from the histology report. They also mentioned that GPs should work more like a dermatologist, by always performing a FBSE and by using dermoscopy (Box 10).

Realising appropriate financial compensation and consult times

Realising appropriate financial compensation and consult times was also suggested as a strategy to de-adopt follow-up care. One way to realise this, as indicated by dermatologists, is to increase the time of the consult for high-risk oncology patients in dermatology. Currently, dermatologists generally have ten minutes per patient, without discriminating between low-risk and complex oncology patients. As a result, they currently use the leftover time of low-risk oncology patients for more complex patients. By increasing planned consultation time for complex oncology patients, the quality of care for complex patients can be maintained, making it more attractive to de-adopt the low-risk low-value care.

Dermatologists also mentioned to tackle financial incentives by penalising dermatologists who provide low-value care, for example by only reimbursing high-value care and not covering for the low-value follow-up visits. In addition, using a macro budget (i.e. budget restriction on national healthcare expenditure²³) was suggested as an option to overcome this problem (Box 11).

Informing dermatologists on the low-value of follow-up care

Providing dermatologists with adequate information and convincing them about the low-value of follow-up visits, was also suggested as a strategy to de-adopt this care. This way unfounded fears regarding the risks of discharging patients from follow-up could be eliminated. According to dermatologists, this could be achieved by increasing awareness among dermatologists about the current BCC guidelines, which restricts follow-up care to high-risk patients. It was also proposed to visualise the (low) risks of de-adopting this care for patients on a piece of paper. In addition, the costs associated with providing this care on a yearly basis could be added (Box 12).

A complete overview of all illustrative quotations for each theme, including additional quotations, can be found in Appendix B.

Discussion

The current study has identified factors contributing to low-value follow-up care by dermatologists after low-risk BCC and suggested strategies for de-adoption. In addition, the views of patients regarding follow-up care were explored.

Consistent with previous studies, complying with patient preferences was reported as a main reason to provide low-value follow-up care.²⁴⁻²⁶ In an US study, 51% of physicians reported to order unnecessary tests to keep the patient happy or because the patient insists on getting it.²⁷ As for patients in our study, we found that part of them indeed preferred receiving periodic follow-up care,

mainly to reduce their anxiety. Some patients, however, indicated to find periodic follow-up care unnecessary. Educating patients has been proven to be useful,²⁸ as it may reduce patients' anxiety, and, as a consequence, their need for periodic follow-up.^{29,30} A recent review on BCC care emphasises the importance of counselling patients about self-screening.³¹ Providing more, and preferably written, information to patients therefore seems a useful and feasible strategy to de-adopt low-value follow-up care. Since this strategy was suggested by both dermatologists and BCC patients, the likelihood of success of such an intervention increases.^{32,33}

A lack of trust in GPs to adequately identify suspicious lesions was also identified by dermatologists as a reason to provide low-value follow-up care to BCC patients. Even though follow-up care is to be de-adopted and not to be substituted by GPs, a lack of trust in GPs of both dermatologists and patients plays an important role, as the GP will be the first healthcare provider of contact for the patient after being discharged. Trust has been found to be an important factor not only between patients and physicians, but also between GPs and specialists, as higher trustworthiness improves the communication between physicians.³⁴⁻³⁶ Improving GPs' education in skin cancer may increase the level of trust between physicians, and that of patients, and may therefore reduce the perceived need to keep patients under dermatological follow-up.³⁷ A first step to improve skin cancer knowledge of GPs is to improve the exposure to dermatology in the medical curriculum, as this is currently underexposed in the Netherlands, but also internationally.³⁸⁻⁴¹ However, it is also important to note that specialists and patients in secondary care are more likely to be negatively biased towards GPs due to selection bias. In addition, it could be argued that dermatologists should support the position of GPs towards patients to increase the level of trust between patients and their GPs.

The Dutch BCC guideline changed its recommendation in 2007; from providing follow-up care to all BCC patients for at least five years, to restricting follow-up to high-risk BCC patients.^{42,43} Although over ten years have passed since this adjustment, dermatologists still indicated providing follow-up care to be a force of habit, particularly for older dermatologists. In line with this, physicians who have been in practise longer are found to be at risk for decreased guideline adherence and providing lower-quality care.^{44,45} Also, it is known that implementation of changes in practise can take many years, and de-adoption processes take even longer.⁴⁶⁻⁴⁹ Merely giving the care time to change may therefore by itself be effective in diminishing this low-value care, particularly as new dermatology residents are adopting current guidelines. To accelerate this process, interventions such as new funding models which promote behavioural change could be useful.^{50,51}

Finally, in accordance with previous studies, dermatologists also stated to be influenced by reimbursements.⁵²⁻⁵⁴ In order to reduce ineffective care, macro-level financial strategies enacted by the government or national institutes may be appropriate.⁵⁵ A particular effective option could be to increase compensation for the first consult after treatment while lowering compensation for additional follow-up visits. The benefits of this differential compensation are: (1) dermatologists have more time in the initial consult after treatment to provide patients with adequate information; (2) financial incentives to provide low-value follow-up care are removed and; (3) do not negatively influence the financial state of the partnership or department. This financial intervention is worth considering because changes to policy and/or funding models are among the most successful interventions in de-adoption.^{32,52,56}

A strength of this study is that we explored factors influencing current low-value BCC follow-up care as well as strategies to de-adopt this care from the perspectives of the stakeholders. Interventions are commonly created on the basis of theory and evidence, and in practise often depend on the

experiences and preferences of researchers.^{57,58} As acceptance of the target group is an essential step for initiating change,^{32,33} integrating the preferences of the stakeholders in an intervention is likely to improve the success of an intervention.⁵⁸ In addition, by conducting a comprehensive qualitative study which also includes the perspective of patients, we were able to gain a more complete overview of both contributing factors and strategies which have the highest potential to be effective in the de-adoption process. The used methodology can be used as an example for studies aimed at reducing low-value care concerning other medical conditions. Moreover, the results of this study may be used in other countries dealing with a high incidence of BCCs and pressure on their healthcare system. This may particularly apply to countries with a GP gatekeeper system or fee-for-service reimbursement systems, such as most western countries.^{59,60}

A limitation of this study is that we only invited patients treated by dermatologists to participate in our focus groups. Although the focus of our study was on the key stakeholders in the de-adoption process (i.e. the dermatologists and the patients treated by dermatologists), future studies could also include the views of GPs and of patients solely treated by GPs. In contrast to a previous study with high-risk BCC patients,⁶¹ some low-risk BCC patients in the current study actually preferred the GP as opposed to the dermatologist as the GP is closer to home and easier accessible. Gaining insight in this subgroup of patients who trusts the GP could provide valuable information to further facilitate the de-adoption process.

In conclusion, this study provides insight into current practices regarding low-risk BCC follow-up regimens through the eyes of dermatologists and patients, and offers suggestions to de-adopt this low-value care. It shows that the needs of patients and complying with them, a lack of trust in GPs and financial incentives are mainly responsible and that educating patients and GPs as well as realising appropriate financial compensation are suggested to be particularly effective in de-adopting the low value follow-up care. The effect of one strategy, educating low-risk BCC patients

with improved patient information containing personalised information, is currently being tested.⁶²

This and the other proposed strategies may be implemented at a larger scale in the future to

stimulate the de-adoption of low-value follow-up care after low-risk BCC.

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Tables

Table 1 Characteristics of participating dermatologists and BCC patients

	Dermatologists (n=18)	Focus group 1 (n=5)	Focus group 2 (n=6)	Focus group 3 (n=6)
Male n (%)	10 (56)	1 (20)	2 (33)	3 (50)
Age Median, years (IQR)	45 (38-54)	56 (47-63)	67 (56-68)	72 (62-78)
Setting		Academic	Peripheral	ISTC
- Academic	2 (11)			
- Peripheral	9 (50)			
- ISTC	3 (17)			
- Combination of the above	4 (22)			
Professional experience Median, years (IQR)	12 (6-20)			

IQR, interquartile range; ISTC, Independent sector treatment centre

Box 1: Illustrative quotes on complying with patient preferences and needs

"There are also people who just think the idea of skin cancer is frightening, and even if you explain it they keep thinking so anyway, and if they then get the choice or propose so themselves, may I come back again, then I say well I would like to see you once a year, and they are completely relieved, I think that's a good thing."

- **Dermatologist 12**

"Yes. And certainly when your predecessors have all said that you have to come back annually. It would be strange if I'd then go and say all right, no, you are now discharged. So I do that with some, but some of them don't accept that yet either."

- **Dermatologist 9**

Box 2: Illustrative quotes on the lack of trust in GPs to recognise suspicious lesions

"Yes, we just know the neighbourhood and we know who's a good general practitioner is and who isn't, and those who have a good general practitioner [we discharge] and others we keep ourselves for follow-ups."

- **Dermatologist 5**

Box 3: Illustrative quotes on the believes in the usefulness of follow-up visits

"The reason for me is of course that they have a higher chance of a second basal cell carcinoma in the first two years, that's one reason."

- **Dermatologist 2**

"Yes, it's someone who won't notice it himself as easily, those you'll see sooner than someone that you can instruct well."

- **Dermatologist 12**

Box 4: Illustrative quotes on the financial incentives to perform follow-up visits

"Because look, in a lot of hospitals with partnerships and things like that, certain targets have to be met, and if those targets all get dropped, then, ehm, it can all lead to financial problems of a club."

- **Dermatologist 9**

"Those are the perverse financial incentives (laughs) that, eh, that are not beneficial for a lot of colleagues, it seems to me (...) I don't want to knock on my colleagues though, because most are trying their best to keep to the guidelines of course."

- **Dermatologist 10**

Box 5: Illustrative quote on the force of habit

"And that's not unwillingness, but it's just that it's the same when you have been eating broccoli on your birthday for years and then if you suddenly can't eat broccoli you are deeply sad. That's just in your system."

- **Dermatologist 13**

Box 6: Illustrative quotes on varying needs with regard to regularity of follow-up care and skin examination

"They have indeed said that whenever there's something please come back, but yes, when is there something? I feel like there is always something, so then what's... then you could say once a year, yes, well, then rather once every six months, but maybe even once a month actually. You know, for me it's never often enough."

- **Patient focus group 1**

"That eh skin cancer really is something that doesn't proliferate so much, so then I think, I think yeah (...) then [follow-up] is not really necessary I think. Then I'll keep a bit of a close eye on it myself."

- **Patient focus group 2**

Box 7: Illustrative quotes on the overall preference for the dermatologist to perform the follow-up visits

"I really don't question the qualities of my general practitioner, but I think it's a bit safer here, more professional as well of course. With a general practitioner, yes, if he'd had a refresher course it would be different."

- **Patient focus group 3**

"What I just said, that they see me coming at dermatology every time like there she is again with her spots, but then the general practitioner is a bit more accessible"

- **Patient focus group 1**

Box 12: Illustrative quotes on informing dermatologists on the low-value of follow-up care

"Yes, then they just have to follow the guideline better, more familiarity with the guidelines, so they follow the guideline, in principle yes."

- **Dermatologist 14**

"Yes, they should actually know that, of course. Look, every dermatologist always wrestles with yes, thirty, forty percent chance that a second one develops, but yes, also a sixty, seventy percent chance of it not. And baso is not generally a serious tumour, and usually very easy to see."

- **Dermatologist 18**

"Do you know what also really works, very simple, give them a paper and show them what it means for the costs of the healthcare if you see someone every three months and make it visual with a little pie chart or with a, you know, just very simple, and these are the healthcare costs if you see someone once a year."

- **Dermatologist 13**

Box 8: Illustrative quotes on the improvements for information provision

"That there are also pictures included, that there are several of them. Looking at what it looks like when it's calm and when it eh, yeah, gets malicious, what, what, what are the differences? The skin around it, does it get red, does it get white, does it contract, how does that that birthmark develop, that, that, that kind of stuff. You read it sometimes but then you think oh, you know, I don't have it so, eh, don't look at it any more. But if you do have it that you can check back and then you think God, have to be alert eh..."

- **Patient focus group 2**

"You're also going to Google for yourself like is it, eh, yeah, and whether you run a risk that it can spread for example. Well that has been confirmed hasn't it, that it's rare in any case, but even that has lingered somewhat with me; is it never or is it rarely? It has been a bit of a thing."

- **Patient focus group 1**

Box 9: Illustrative quotes on educating patients with improved information

"Well, here also I think make more, eh, patients aware of eh, ehm, of what a basal cell carcinoma can look like, so that they can recognise it faster, say. Then you have, so that you don't need to check too often out of fear."

- **Dermatologist 14**

"I think a nice hand-out would be handy because I think that many people, if you just have a good hand-out with which people can be discharged, then it is also much easier to discharge people."

- **Dermatologist 9**

Box 10: Illustrative quotes on educating GPs to increase trust of dermatologists

"I think that GPs should have a lower threshold to perform biopsies, because when you perform a biopsy you also learn from that, right, you have a suspicion of a spot and you get a result so then you know am I okay or not, so I think that, I think that that's one of the most important, maybe even more than skills."

- **Dermatologist 4**

"Well there's a lot of discussion about dermatoscopy in primary healthcare, eh, I think that, say, dermatoscopy, say, not so much for melanoma, but for skin cancers is helping the GP. I also think that the GP, eh, well, ehm, eh, that, I think it also comes from research, right, that they can especially better recognise benign skin abnormalities with it."

- **Dermatologist 11**

Box 11: Illustrative quotes on realising appropriate financial compensation and consult times

"If for example patients go to the GP more often, perhaps the time for the complex dermatological patient should, perhaps they should also get more time, so that they are better looked at, and that it in any case doesn't lead to losses..."

- **Dermatologist 9**

"It is like if you run a red light and you don't get a ticket you keep running red lights, and if you are not punished for it, you just keep doing your own thing."

- **Dermatologist 13**