

Propositions pertaining to the PhD thesis

A Framework for the Evaluation and Reporting of Outcomes after Complex Heart Valve Interventions - Applications to the European Ross Registry

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Tuesday September 16, 2014 at 13:30 hrs

1. A standardized nomenclature is of seminal importance for clinical research and communications of results after aortic valve interventions (*this thesis*).
2. At least for the first postoperative decade, survival after the Ross procedure is comparable to the general population. The exact reasons for this remain largely speculative due to the absence of a randomized controlled trial between the Ross procedure and conventional aortic valve replacement alternatives (*this thesis*).
3. Surgical technique is one of the most important predictors of durability after the Ross procedure (*this thesis*).
4. Inappropriate use of statistical methods for the evaluation of outcomes after heart valve interventions can severely influence the evaluation and interpretation of results. Methods respecting the information content and the characteristics of the data generating processes, allow a better evaluation of complex outcomes (*this thesis*).
5. At least for the first postoperative decade, there is no evidence that the presence of a bicuspid aortic valve significantly influences autograft durability or aortopathy (*this thesis*).
6. Aortic valve replacement therapies for young patients with aortic valve disease fall short of the expectations that physicians and patients have and mandate in the current era. No perfect valve substitute exists and all alternatives including the autograft procedure have advantages and disadvantages which may fit the needs of different patients.
7. The evaluation of results after heart valve replacement in young patients should not be limited to the first postoperative decade given that the life expectancy of these patients spans over several decades.
8. Informed decision making prior to heart valve interventions mandates a careful and objective evaluation of the results of all possible therapeutic options as well as each patient's needs and wishes. Outcomes that should be evaluated before decisions on aortic valve interventions include survival, durability, quality of life and the patient's valuation of valve-related morbidity.
9. Intuitive judgment of risks is fallible. The method of presentation and expression of these risks is of seminal importance for risk communication.
10. When interpreting statistical results and outcomes prior to decision making, common sense and intuition are not enough. "*When it comes to rare probabilities, our mind is not designed to get things quite right*" (Daniel Kahneman)
11. "*In God we trust; all others must bring data*" (William Edwards Deming 1900 - 1993)