



DEVELOPMENT OF APPROPRIATENESS CRITERIA FOR TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI) FOR SEVERE SYMPTOMATIC AORTIC STENOSIS

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SUMMARY

Introduction: Symptomatic severe aortic stenosis is associated with high mortality. The treatment of choice for this disease is surgical valve replacement but this cannot be performed on all patients. Transcatheter aortic valve implantation (TAVI) has thus been proposed as an alternative treatment option in patients with high surgical risk or contraindication to surgery.

Objective: To define the indications in which the use of TAVI is appropriate for treatment of symptomatic severe aortic stenosis in adult patients.

Methods: The RAND/UCLA Appropriateness Method was used. The method has 2 steps: 1) developing a list of clinical indications (based on a combination of variables identified in a systematic review of the scientific literature); and 2) setting up a panel of experts to evaluate the use of clinical indications. To obtain the experts' judgement, a modified Delphi method with 2 rating rounds (first round without interaction among the panel of experts; second round at a face-to-face meeting) was used. Indications were classified into 3 categories (appropriate, inappropriate or uncertain), in accordance with the panellists' median score and the level of disagreement among the panelists.

Results: The panel of experts was composed of 10 professionals (4 interventional cardiologists, 3 clinical cardiologists and 3 heart surgeons). Initially a list was proposed with 432 indications, which were then reduced to 224 in the second round. The panellists rated 19 indications (8.5%) as appropriate, 152 indications (67.8%) as inappropriate and 53 (23.7%) as uncertain. There was disagreement on only 4 indications (1.8%).

Conclusions/recommendations:

- On the basis of a systematic review of the literature and the judgement of a panel of experts, a list of 224 clinical indications was drawn up for the use of TAVI in adult patients with symptomatic severe aortic stenosis.
- In 8.5% of indications, the use of TAVI is appropriate.
- In 23.7% of indications, it could not be established whether the use of TAVI resulted in more benefits than risks (uncertain indications) but the level of disagreement among the experts was minimal. In such clinical scenarios, the role of a multidisciplinary patient-selection team would thus seem to be essential.
- The list of indications has been designed as a decision-making tool for health care professionals responsible for the process and multidisciplinary patient-selection committees. The final treatment decision should incorporate the patient's values and preferences.
- To facilitate the implementation of appropriateness criteria in clinical practice, it is essential that it be included in electronic medical records and disseminated to health professionals, a task for which the collaboration of scientific societies and health care institutions is indispensable.



- As the list of indications for appropriate use of TAVI reflects current scientific knowledge, this means that its validity and applicability must be regularly assessed, and updated as relevant information becomes available.

