

[Transcatheter aortic valve implantation versus aortic valve replacement: cost analysis from the regional health service and hospital perspectives].

[Article in Italian]

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Abstract

BACKGROUND

The aim of this study was to estimate the cost of transcatheter aortic valve implantation (TAVI) and surgical aortic valve replacement (AVR) procedures, together with the cost of the first-year hospitalizations following the index ones, in 4 Italian regions where diffusion level of TAVI and coverage decisions are different.

METHODS

The cost analysis was performed evaluating 372 patients enrolled consecutively from December 1, 2012 to September 30, 2015. The index hospitalization cost was calculated both from the hospital perspective through a full-costing approach and from the regional healthcare service perspective by applying the regional reimbursement tariffs. The follow-up costs were calculated for one year after the index hospitalization, from the regional healthcare service perspective, through the identification of hospital admissions for cardiovascular pathologies after the index hospitalization and computation of the relative regional tariffs.

RESULTS

The mean hospitalization cost was € 32 120 for transfemoral TAVI (232 procedures), € 35 958 for transapical TAVI (31 procedures) and € 17 441 for AVR (109 procedures). From the regional healthcare service perspective, the mean transfemoral TAVI cost was € 29 989, with relevant regional variability (range from € 19 987 to € 36 979); the mean transapical TAVI cost was € 39 148; the mean AVR cost was € 32 020. The mean follow-up costs were € 2294 for transfemoral TAVI, € 2335 for transapical TAVI, and € 2601 for AVR.

CONCLUSIONS

In our study, transapical TAVI resulted more expensive than transfemoral TAVI, while surgical AVR was cheaper than both (less than 40%). Costs of the transfemoral approach showed great variability between participating regions, probably due to different hospital costs, logistics, patients' selection and reimbursement policy. A central level of control would be appropriate to avoid unjustified differences in access to innovative procedures between different Italian regions.

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