

4. **Je HG**, Song H, Jung SH, *et al.* Impact of the Maze operation on the progression of mild functional tricuspid regurgitation. *J Thorac Cardiovasc Surg* 2008;**136**:1187–92.

Important cost categories not included: transcatheter aortic valve implantation probably less cost-effective

Patients eligible for the transcatheter aortic valve implantation (TAVI) intervention are old (>75 years), face a high risk of mortality, and generally have multiple comorbidities.¹ Healthcare consumption of this group of patients can, therefore, be expected to be high.^{2,3} As a consequence, life extension in this group would probably result in additional healthcare consumption in so-called life years gained. Healthcare consumption in life years gained could be due to treatment of a large variety of diseases related to old age and/or consumption of long-term care due to disabilities.

In the article by Watt *et al.*,⁴ only a limited set of cost categories is included, which results in too favourable estimates of the cost effectiveness of TAVI. Current NICE guidelines do not advocate the inclusion of medical costs in life years gained of diseases not directly related to the intervention under study.⁵ Ignoring costs that are relevant for the NHS is difficult to defend using scientific arguments.^{6–8} It also results in favouring interventions that primarily increase length of life over interventions that mainly improve quality of life.⁹ Broadening the perspective beyond the NHS, as Watts *et al* suggest, would probably result in even less favourable cost-effective estimates, as the target group of TAVI does not participate in the labour market anymore and, therefore, consumes more than they produce.⁹ While there may be uncomfortable implications of including more cost categories that warrant discussion, this can never be a reason to exclude foreseeable costs.

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REFERENCES

1. **Leon MB**, Smith CR, Mack M, *et al.*; PARTNER Trial Investigators. Transcatheter aortic-valve implantation

for aortic stenosis in patients who cannot undergo surgery. *New Engl J Med* 2010;**363**:1597–607.

2. **Yang Z**, Norton EC, Stearns SC. Longevity and health care expenditures: the real reasons older people spend more. *J Gerontol B Psychol Sci Soc Sci* 2003;**58**: S2–10.
3. **Basu A**, Arondekar BV, Rathouz PJ. Scale of interest versus scale of estimation: comparing alternative estimators for the incremental costs of a comorbidity. *Health Econ* 2006;**15**:1091–107.
4. **Watt M**, Mealing S, Eaton J, *et al.* Cost-effectiveness of transcatheter aortic valve replacement in patients ineligible for conventional aortic valve replacement. *Heart* 2012;**98**:370–6.
5. **ISPOR**. *Pharmacoeconomic Guidelines Around the World*. <http://www.ispor.org/PEguidelines/index.asp> (accessed 18 Aug 2011).
6. **Rappange DR**, van Baal PH, van Exel NJ, *et al.* Unrelated medical costs in life-years gained: should they be included in economic evaluations of healthcare interventions? *Pharmacoeconomics* 2008;**26**:815–30.
7. **Meltzer D**. Response to “Future costs and the future of cost-effectiveness analysis”. *J Health Econ* 2008;**27**:822–5.
8. **Feenstra TL**, van Baal PH, Gandjour A, *et al.* Future costs in economic evaluation. A comment on Lee. *J Health Econ* 2008;**27**:1645–9; discussion 1650–1.
9. **Meltzer D**. Accounting for future costs in medical cost-effectiveness analysis. *J Health Econ* 1997;**16**:33–64.

The Authors’ reply: Van Baal argues that we have under-estimated the cost associated with transcatheter aortic valve implantation (TAVI) and as a result, we have generated an overly-optimistic picture of its cost effectiveness.¹ This view is based on the fact that we have not allowed for the cost of managing the range of diseases (other than aortic stenosis) that can be experienced during the additional years of life that we estimate will result from the use of TAVI rather than medical management. For example, van Baal implies that we should have included the cost associated with the chance of lung cancer being diagnosed during the additional years of life that have been generated by TAVI. The authors are correct in referring to arguments which have been made in favour of the inclusion of these ‘unrelated’ costs in economic evaluation. However, only a few of the health systems around the world, which use formal economic evaluation to support decisions about the use of new medical technologies, advocate the inclusion of these costs. Given that our analysis adopted the perspective of the UK NHS and the methodological guidelines published by National Institute for Health and Clinical Excellence,² which do not support the inclusion of ‘unrelated costs’, we did not include these into our model. Furthermore, if we had incorporated these costs, the interpretation of the resulting cost effectiveness ratio would be unclear. This is because the routine inclusion of such costs

would also need to be considered for all other interventions provided by the National Health Service which would then impact on the cost effectiveness threshold against which the TAVI cost effectiveness ratio is compared.

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REFERENCES

1. **Watt M**, Mealing S, Eaton J, *et al.* Cost-effectiveness of transcatheter aortic valve replacement in patients ineligible for conventional aortic valve replacement. *Heart* 2012;**98**:370–6.
2. **National Institute for Health and Clinical Excellence (NICE)**. *Guide to the Methods of Technology Appraisal*. London: NICE, 2008.

CORRECTION

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S McCusker, P McKavanagh, L Lusk, A Agus, P Ball, M Harbinson, T Trinnick, E Duly, G Walls, S Shevlin, C L McQuillan, M Alkhalil, P Donnelly. BCS Abstracts 2012: 097 Calcium scores are more cost effective for risk stratification than NICE’s modified diamond Forrester calculator. *Heart* 2012;**98**(Suppl 1):A55–A56 doi: 10.1136/heartjnl-2012-301877b.97. The first author of this abstract should be P McKavanagh.



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