

Title:	Off-pump coronary artery bypass (OPCAB) with the aid of tissue stabilisers
Agency:	Medical Services Advisory Committee (MSAC) Commonwealth Department of Health and Ageing GPO Box 9848 Canberra ACT 2601 Australia
Reference:	MSAC Reference 11 Assessment Report First printed: June 2002 http://www.msac.gov.au ISBN 0 642 82036 8

Aim

To assess the safety, effectiveness and cost-effectiveness of off-pump coronary artery bypass (OPCAB) for revascularisation of occluded coronary arteries.

Conclusions and results

OPCAB and coronary artery bypass grafting (CABG) were compared in 7 randomised controlled trials and 25 nonrandomised controlled trials.

Safety

Perioperative morbidity and mortality for OPCAB was generally similar or lower than CABG. Overall, there was no discernible difference in short-term safety outcomes between OPCAB and CABG, while major complications appeared less likely to occur following OPCAB. However the lack of long-term follow-up precluded an assessment of the long-term safety of OPCAB.

Effectiveness

Limited data indicated that perioperative effectiveness outcomes were similar for both OPCAB and CABG. However the number of grafts performed per patient was significantly lower during OPCAB. It was not possible to assess whether OPCAB was more effective than CABG for postoperative and longer term outcomes.

Cost-effectiveness

OPCAB may be less expensive to perform than CABG but the lack of long-term safety and effectiveness data as well as the paucity of costing data precluded an assessment of cost-effectiveness.

Recommendation

MSAC recommended that on the strength of evidence pertaining to off-pump coronary artery bypass with the aid of tissue stabilisers, public funding should be supported where perfusion facilities are available for reasons of patient safety.

The Minister for Health and Ageing accepted this recommendation on 17 May 2002.

Methods

MSAC conducted a systematic review of the literature pertaining to off-pump coronary artery bypass performed on a beating heart, and performed in conjunction with a mechanical coronary tissue stabilizer; compared with coronary artery bypass grafting, via full median sternotomy.