

Title: Transmyocardial laser revascularisation (TMR) October 1999

Agency: Medicare Services Advisory Committee (MSAC)
Commonwealth Department of Health and Ageing
GPO Box 9848 Canberra ACT 2601 Australia
<http://www.msac.gov.au>

Reference: MSAC application 1004 Assessment report ISSN 1443-7120

Aim

To assess the safety and effectiveness of the procedure and under what circumstances public funding should be supported for the procedure.

Conclusions and results

Safety TMR carries risks: 3-5% peri-operative mortality and adverse events common to thoractomy.

Effectiveness Studies do not demonstrate that TMR is clinically effective in avoiding myocardial infarction, increasing exercise tolerance and prolonging survival. There is evidence that it significantly reduces the severity of angina (studies show a reduction of 39% in patients with disabling angina) and the incidence of unstable angina (studies show a reduction of 69% in patients with unstable angina). However, it is not certain whether these benefits will be sustained beyond 12 months.

Cost-effectiveness TMR is estimated to cost \$18,000-\$21,000 per patient freed from unstable or disabling angina. Savings of \$4,300 per year are estimated to result from reduced cost of angina treatment if symptom relief is sustained.

Recommendations

Public funding should not be supported due to insufficient evidence that clinical benefits outweigh potential risks.

Method

MSAC conducted a systematic review of medical literature on TMR from 1986-1998 through the Medline, Cochrane Library and DARE databases. Cost-effectiveness was measured as the increment of TMR over medical management costs divided by the proportion of patients freed from the angina condition.

Further research

Overseas and Australian studies currently in progress may provide valuable data on the long-term effectiveness of TMR. It would be useful to compare holmium with CO₂ laser treatments.