Hospital costs of protective isolation procedures in heart transplant recipients

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Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

Health technology
Protective isolation procedures in heart transplant recipients.

Type of intervention
Secondary prevention.

Economic study type
Cost-effectiveness study.

Study population
Patients undergoing heart transplant.

Setting
Hospital. The economic study was conducted in Leuven, Belgium.

Dates to which data relate
Effectiveness data was obtained from studies published between 1985 and 1993. Resources related to the period January and February 1993 and 1993 prices were used.

Source of effectiveness data
Effectiveness data was taken from a review of previously completed studies.

Outcomes assessed in the review
Infections and complications (as a proxy for morbidity and mortality after heart transplantation).

Study designs and other criteria for inclusion in the review
The study designs and inclusion criteria were not stated.

Sources searched to identify primary studies
Not stated.

Criteria used to ensure the validity of primary studies
Not stated.
Methods used to judge relevance and validity, and for extracting data
Not stated.

Number of primary studies included
Five studies of unspecified type and 1 survey were used as the primary studies.

Methods of combining primary studies
Narrative method.

Investigation of differences between primary studies
Not performed.

Results of the review
Primary studies showed that no scientific evidence exists to support the use of strict reverse isolation as an infection control procedure in the heart transplant population. In one of the studies considered, 64.7% of respondents regarded strict reverse isolation as undesirable and unnecessary, with no implications for favourable patient outcomes.

Measure of benefits used in the economic analysis
Infections and complications.

Direct costs
Cost results were gained from a prospective study which was part of the Leuven Heart Transplant Program. Direct health service costs were considered: materials, labour (ie; nursing care, nutrition, physician visits, examinations, physical supply, maintenance and visitors). Quantities and costs were analysed separately. Price data were provided by the hospital administration.1993 prices were used.

Currency
US Dollars ($).

Sensitivity analysis
No sensitivity analysis was carried out.

Estimated benefits used in the economic analysis
Benefits were estimated to be the same and therefore only costs were compared.

Cost results
The first day in isolation was shown to cost about $160, and each consecutive day, $65. The modified isolation protocol would allow savings of over 50% of the hospital resources devoted to isolation measures.

Synthesis of costs and benefits
The new isolation protocol would allow savings of over 50% of the hospital resources dedicated to isolation measures, with apparently no major impact on the hospital acquired infections and early mortality.
Authors' conclusions
Isolation procedures use a significant portion of hospital resources. Modifying isolation protocols in heart transplant recipients can be a source of considerable savings in a transplant program.

CRD Commentary
This study is a cost-minimisation analysis. No relevant information is given on the relevance and validity of the primary studies considered. It represents a good costing exercise, but no effort was made to link costs to health outcomes.

Source of funding
None stated.

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