Cost-effective carotid endarterectomy

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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
Carotid endarterectomy.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
Patients undergoing carotid endarterectomy.

Setting
Holy Family Hospital, Spokane, Washington, USA.

Dates to which data relate
Effectiveness data were collected between January 1993 and June 1994. Prices related to 1993.

Source of effectiveness data
Single study.

Link between effectiveness and cost data
Costing was undertaken retrospectively on the same patient sample as that used in the effectiveness study.

Study sample
66 carotid endarterectomies were performed on 57 patients aged between 40 to 89 years, with a mean age of 70 years.

Study design
Retrospective medical record review (case series).

Analysis of effectiveness
The analysis was based on treatment completers only. Main outcomes were mortality and stroke rates.
Effectiveness results
One patient (1.5%) had a perioperative stroke and died: this was the only death in the series.

Clinical conclusions
Limited utilisation of the intensive care unit and short postoperative stays did not adversely affect patient outcome.

Measure of benefits used in the economic analysis
Some costs and quantities were reported separately. The main outcomes assessed in the review were mortality and stroke rates.

Direct costs
Direct health service costs were considered, such as hospital charges. 1993 prices were used.

Currency
US Dollars ($).

Sensitivity analysis
Not performed.

Estimated benefits used in the economic analysis
One patient (1.5%) had a perioperative stroke and died: this was the only death in the series.

Cost results
The average charge for carotid endarterectomy in 1993 at Holy Family Hospital was $8,060. The average hospital charges for the same procedure at other facilities in the community was $11,570.

Synthesis of costs and benefits
Carotid endarterectomy implementing cost-containment strategies was a dominant strategy.

Authors’ conclusions
Cost savings, determined by the limited utilisation of the intensive care unit and short postoperative stays, did not adversely affect the mortality and stroke rates.

CRD Commentary
This was a simple study, designed and conducted by two medical doctors. The authors did not address issues such as sensitivity and statistical analysis. Nevertheless, this was a good, straightforward surgical insight into the economics of carotid endarterectomy.

Source of funding
None stated.

Bibliographic details