Impact of sumatriptan on clinic utilization and costs of care in migraineurs
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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
Sumatriptan in the treatment of migraine.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
Patients regularly attending a migraine headache clinic, with migraine headaches meeting International Headache Society criteria, between March and December 1993. Clients were 85% female; 95% Caucasian; mean age = 43.35 years (+

Setting
The practice setting was a headache clinic at a tertiary care hospital in the USA.

Dates to which data relate
Effectiveness and resource use data were obtained between 1992-95 (approximately); data for the intervention were from an 18 month period following the start of the intervention in 1993; data for the control were from the 18 months immediately prior to the introduction of the intervention. The price year was not clearly stated.

Source of effectiveness data
The estimate for final outcome was derived from a 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
A consecutive sample of 104 patients attending a headache clinic (86% of those originally eligible) were chosen for analysis. Those attending the clinic once over an 18 month period prior to selection or those for whom sumatriptan was contraindicated were excluded. No power calculations were reported.

Study design
Before-and-after study conducted in a single centre. The duration of follow-up was 18 months (36 month study period).
No loss to follow-up was stated.

**Analysis of effectiveness**
The principle of the analysis was not relevant. The primary health outcome was clinic visit frequency.

**Effectiveness results**
Visit frequency (P<0.001, signed rank test):

During the 18 months before test dose, 2 median visits (range 1-8) were reported, whilst for the 18 months after test dose, 1 median visit (range 0-6) was reported.

**Clinical conclusions**
Many patients benefit from sumatriptan and seek medical attention less frequently.

**Measure of benefits used in the economic analysis**
The measure of benefits was a reduction in the number of visits.

**Direct costs**
No discounting was stated. Quantities and costs were not analysed separately other than for visits. "Patient care" (nurse, physician and laboratory technician) and "institutional costs" (ie: capital costs, excluding technical and drug costs) were assessed for the 18 months before, and after the introduction of the intervention. Note: pharmaceutical costs for sumatriptan use were unavailable. The perspective of the health service was used. The price year was not stated.

**Statistical analysis of costs**
Costs were analysed using paired t-tests.

**Currency**
US dollars ($).

**Sensitivity analysis**
No sensitivity analysis was performed.

**Estimated benefits used in the economic analysis**
Clinic visit frequency fell by 1 visit (to 1) after using sumatriptan.

**Cost results**
The mean professional service cost was $229 (+/- 137) for the 18 months before the start of the intervention and $136 (+/- 130) for the 18 months after the start of the intervention. The corresponding figures for mean capital costs were $113 (+/- 66) and $78 (+/- 76).

**Synthesis of costs and benefits**
Since the intervention turned out to be the dominant strategy, costs and benefits were not combined.
Authors' conclusions
Along with reduced clinic visits, sumatriptan (over the 18 months of using the drug) resulted in lower treatment costs than would otherwise have occurred in treating migraineurs.

CRD COMMENTARY - Selection of comparators
The reason for the choice of comparator (the "do nothing" option) was clear.

Validity of estimate of measure of benefit
The study design was likely to be a source of bias determining the results. The "surrogate marker" was questionable as an adequate measure of effectiveness.

Validity of estimate of costs
Without discounting or a specified price year, the cost data results lack the detail necessary to carry out comparisons with costs from other settings/countries. Indirect costs were not included and this was recognised as having a bearing on the analysis of the economic effects of the intervention.

Other issues
The issue of generalisability cannot be addressed for the reasons given above. The conclusions were justified in terms of statistical-tested differences in outcomes between the observational periods.

Source of funding
None stated.

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