Cost-effectiveness of primary tetanus vaccination among elderly Canadians

Hutchison B G, Stoddart G L

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
Primary tetanus vaccination.

Type of intervention
Primary prevention

Economic study type
Cost-effectiveness analysis.

Study population
Individuals aged 65 and over.

Setting
The study was carried out in Canada.

Dates to which data relate

Source of effectiveness data
Review of studies.

Modelling
Epidemiological cohort model (model of survival and disease).

Measure of benefits used in the economic analysis
Life years gained and lives saved.

Direct costs
Costs were discounted at 5%. Direct costs were to the health service and included mailing, vaccine, physician time, and adverse reactions. Price information related to 1984.

Currency
Canadian dollars (Can$). In the DH Register of Cost-Effectiveness Studies, the original results were converted to UK pounds sterling (£) using GDP purchasing power parities and reflated to 1991 using the NHS pay and prices index.
Sensitivity analysis
A sensitivity analysis was carried out using the method of multiple parameter variation.

Estimated benefits used in the economic analysis
The 10 year programme is estimated to prevent 5 cases of tetanus and one death from tetanus resulting in a gain of 13 life-years

Cost results
Savings in health care costs averted equal to 140380 were included. Cost duration was 2 years.

Synthesis of costs and benefits
Incremental cost per life saved was 4.98 million (costs discounted at 5%). Incremental cost per life year gained was 569000 (costs and benefits discounted at 5%).

CRD Commentary
(This commentary was not written by CRD, but by the authors of the DH Register.)

1) Side effects of treatment cannot be included with this outcome measure, 16700 adverse reactions to tetanus toxoid are estimated to occur in the Canadian population. 2) The parameters investigated by the sensitivity analysis and the range of values were not adequately justified.

Bibliographic details

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