(standard deviation [SD]) per patient and likelihood (SD) of good outcomes was CAD 291,769 (CAD 11,576) [USD 226,207 (USD 8,975)] and 41.82 percent (0.013) when considering optimal clinical outcomes, and CAD 287,725 (CAD 4,141) [USD 223,097 (USD 3,211)] and 41.67 percent (0.016) when considering optimal economic efficiency.

CONCLUSIONS:

Our model reduces the gap that exists between health technology implementation and cost-effectiveness analysis; namely, neither fully addresses relative efficiency driven by geographical variation, which may misrepresent system value in local settings. Implementation strategies generated in our model capture full values in terms of patient outcomes and costs.

OP53 Comparing Approaches To Univariate Sensitivity Analysis

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INTRODUCTION:

Fully probabilistic analyses are now standard for economic models, with all parameters varied according to probability distributions. Using univariate sensitivity analyses to explore the influence of different parameters on the model results are also standard. Although there are several approaches available, there has been little discussion of the merits of each or justification for the method used in any given analysis. The aim of this study was to compare three approaches to univariate sensitivity analysis using a case study.

METHODS:

We considered three univariate sensitivity analysis approaches: (i) set one parameter at its upper and lower bounds while all others are set at their mean value; (ii) analysis of variance; and (iii) set one parameter at its mean and vary all others. We compared these approaches using an economic model of mechanical thrombectomy for the treatment of acute ischemic stroke, considering outcomes of incremental costs, incremental quality-adjusted life-years (QALYs), and net monetary benefit (NMB).

RESULTS:

For incremental costs and QALYs the correlation between the approaches was moderate to high, with correlation coefficients between 0.46 and 0.94. For NMB the correlation between approaches was also high (range 0.89 to 0.98), but some of the most influential parameters were ranked differently. Setting one parameter at its upper and lower bounds was the only method that facilitated an analysis of direction of influence.

CONCLUSIONS:

The three approaches addressed different but relevant questions. Setting individual parameters at their bounds is effectively a systematic scenario analysis and may be misleading to decision makers. Analysis of variance may be more easily interpreted, but it has disadvantages. Setting a parameter at its mean, while varying other parameters, is similar to value of information analysis. As with any sensitivity analysis, it is imperative that the uncertainty associated with each parameter is adequately captured in the model.

OP56 Rehabilitation Of Memory In Brain Injury: A Cost-Utility Analysis

AUTHORS:

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INTRODUCTION:

People with traumatic brain injuries (TBIs) commonly report memory impairments which are persistent, debilitating, and reduce quality of life. As part of the Rehabilitation of Memory in Brain Injury trial, a cost-effectiveness analysis was undertaken to examine the comparative costs and effects of a group memory rehabilitation program for people with TBI.

METHODS:

Individual-level cost and outcome data were collected. Patients were randomized to usual care (n=157) or usual care plus memory rehabilitation (n=171). The primary outcome for the economic analysis was the EuroQol-5D quality of life score at 12 months. A UK NHS costing perspective was used. Missing data was addressed by multiple imputation. One-way sensitivity

https://doi.org/10.1017/S0266462318001022 Published online by Cambridge University Press