

Anarchy in economic evaluations in spine surgery: a systematic qualitative assessment.

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ABSTRACT

Background: Considering the rising healthcare expenses, economic evaluations are more pertinent than ever. There is no overview of recent literature and quality of cost-effectiveness in spine surgery.

Research question: This study aims to review current cost-effectiveness research methodology and quality, to serve as a basis to create evidence-based recommendations for economic evaluations in spine surgery.

Design: Systematic review.

Methods: The search was conducted among 6 databases. Cost-effectiveness analyses of spine surgery published after 2011 were included. Quality was assessed according to CHEC criteria. Parameters concerning methodology and outcomes were evaluated.

Results: A total of 108 studies were included. Of these, 56 studies were retrospective and trial-based. The majority concerned the lumbosacral spine (n=61). Other studies concerned the cervical spine (n=18), spinal deformity surgery (n=16), trauma (n=10) and oncology (n=3). The majority had shorter follow-up than 2 years. Utility measures varied between the EuroQol 5 dimensions (EQ-5D) and variations of the Short-Form Health Survey (e.g., SF-36). Effect measures varied widely. All studies included direct costs from a healthcare perspective. Costs of hospitalisation, procedure and pharmaceuticals were mainly assessed. Indirect costs were included in 43 studies, and mostly concerned loss of productivity. The mean CHEC score was 12.4/19.

Discussion: Cost-effectiveness in spine surgery appears to be a hot topic in the last decade.

Unfortunately, the comparability of these studies is extremely low. This is the repercussion of lacking governance in methodology. Disease-specific recommendations, as complement to existing general guidelines, will ameliorate comparability and interpretability and thus, overall research quality. The next step of this project is to develop expert-based recommendations for the design, conduct, and reporting of economic evaluations in spine surgery in a Delphi study.