Consolidated Health Economic Evaluation Reporting Standards

Economic evaluations of health interventions pose a particular challenge for reporting. There is also a need to consolidate and update existing guidelines and promote their use in a user friendly manner. The Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement is an attempt to consolidate and update previous health economic evaluation guidelines efforts into one current, useful reporting guidance. The primary audiences for the CHEERS statement are researchers reporting economic evaluations and the editors and peer reviewers assessing them for publication.

The increasing number of treatment options and the high costs associated with epilepsy have fostered the development of economic evaluations in epilepsy. It is important to examine the availability and quality of these economic evaluations and to identify potential research gaps. As well as looking at both pharmacologic (antiepileptic drugs [AEDs]) and nonpharmacologic (e.g., epilepsy surgery, ketogenic diet, vagus nerve stimulation) therapies, a review of Wijnen et al., examines the methodologic quality of the full economic evaluations included. Literature search was performed in MEDLINE, EMBASE, NHS Economic Evaluation Database (NHS EED), Econlit, Web of Science, and CEA Registry. In addition, Cochrane Reviews, Cochrane DARE and Cochrane Health Technology Assessment Databases were used. To identify relevant studies, predefined clinical search strategies were combined with a search filter designed to identify health economic studies. Specific search strategies were devised for the following topics: (1) AEDs, (2) patients with cognitive deficits, (3) elderly patients, (4) epilepsy surgery, (5) ketogenic diet, (6) vagus nerve stimulation, and (7) treatment of (non)convulsive status epilepticus. A total of 40 publications were included in this review, 29 (73%) of which were articles about pharmacologic interventions. Mean quality score of all articles on the Consensus Health Economic Criteria (CHEC)-extended was 81.8%, the lowest quality score being 21.05%, whereas five studies had a score of 100%. Looking at the Consolidated Health Economic Evaluation Reporting Standards (CHEERS), the average quality score was 77.0%, the lowest being 22.7%, and four studies rated as 100%. There was a substantial difference in methodology in all included articles, which hampered the attempt to combine information meaningfully. Overall, the methodologic quality was acceptable; however, some studies performed significantly worse than others. The heterogeneity between the studies stresses the need to define a reference case (e.g., how should an economic evaluation within epilepsy be performed) and to derive consensus on what constitutes “standard optimal care” [1].

The in-hospital treatment of patients with traumatic brain injury (TBI) is considered to be expensive, especially in patients with severe traumatic brain injury. To improve future treatment decision-making, resource allocation and research initiatives, a study of van Dijck et al., from The Netherlands reviewed the in-hospital costs for patients with s-TBI and the quality of study methodology.

A systematic review was performed using the following databases: PubMed, MEDLINE, Embase, Web of Science, Cochrane library, CENTRAL, Emcare, PsycINFO, Academic Search Premier and Google Scholar. Articles published before August 2018 reporting in-hospital acute care costs for patients with s-TBI were included. Quality was assessed by using a 19-item checklist based on the CHEERS statement.

Twenty-five out of 2372 articles were included. In-hospital costs per patient were generally high and ranged from $2,130 to $401,808. Variation between study results was primarily caused by methodological heterogeneity and variable patient and treatment characteristics. The quality assessment showed variable study quality with a mean total score of 71% (range 48% - 96%). Especially items concerning cost data scored poorly (49%) because data source, cost calculation methodology and outcome reporting were regularly unmentioned or inadequately reported.

Healthcare consumption and in-hospital costs for patients with s-TBI were high and varied widely between studies. Costs were primarily driven by the length of stay and surgical intervention and increased with higher TBI severity. However, drawing firm conclusions on the actual in-hospital costs of patients sustaining s-TBI was complicated due to variation and inadequate quality of the included studies. Future economic evaluations should focus on the long-term cost-effectiveness of treatment strategies and use guideline recommendations and common data elements to improve study quality [2].

References

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