PEDE Database Methods

Search strategies

Citations are derived from multiple sources such as electronic citation databases, web sites, electronic communications and print publications. A search strategy was developed and tested to achieve high sensitivity (no missed publications) for each electronic source. Search strategies are reviewed annually and updated as needed. Searches are conducted for each of the following citation databases:

- MEDLINE
- EMBASE
- APA PsycINFO
- CINAHL
- IPA
- EconLit ERIC
- EBM Cochrane Collection: Cochrane Database of Systematic Reviews (CDSR) and Cochrane Controlled Trials Register (CCTR)

In addition to the above citation databases, web sites of government agencies, technology assessment organizations, research institutions, universities and other groups involved with health economics, health policy, health services research and outcomes research are searched for relevant unpublished reports and working papers. Relevant electronic journals and newsletters, print newsletters, reports, monographs and text books are also reviewed.

Eligibility Review

The citation abstracts that are extracted using the search strategies are evaluated for eligibility using strict inclusion/exclusion criteria. Only full economic evaluations are accepted, i.e. a comparator exists and both costs and health outcomes are described and included in the analysis. The economic evaluation does not have to be the primary objective of the study to be eligible. Abstracts of uncertain eligibility are assessed by a second researcher. A final inclusion decision may be made based on the full text.

Inclusion criteria

- Consistent with use in allocation decision-making, only full economic evaluations are accepted for inclusion, i.e. a comparator exists and descriptions of both costs and health outcomes are present.
- The comparator must be either real or implied, such as in pre- and post-intervention, or a 'do nothing' or 'usual care' approach
- The health outcome, intermediate or final, must be reported along with costs
- The economic evaluation does not have to be the primary objective of the study to be eligible.
- Randomized controlled trials, observational studies, modeling studies, and meta-analyses are eligible if they include novel data aggregation and new analyses.
- The study must contain an original analysis and include the evaluation of an intervention, such as a medical or surgical treatment, a program, a service, or a new process.
- The intervention must be directed at the pediatric population including neonates, infants, children, or adolescents less than 19 years of age. Interventions aimed at pregnant women or mothers are also eligible if the outcomes are measured in the offspring
- Non-English articles are eligible if an English abstract is available

Exclusion criteria

- Cost analyses, cost descriptions and cost of illness studies, or studies where a specific intervention is not evaluated are excluded
- Interventions consisting of a continuous quality improvement process or a new operating procedure or policy are excluded
- Studies where costs are not quantified are excluded
- Abstracts from conference proceedings, methodological papers, papers without original analyses, policy statements, case studies or reports, letters, editorials or notes are excluded

Data Extraction

Specific information relevant to health economic evaluation are extracted and entered into the PEDE database from the eligible citations. This includes:

- Target population
- Age group(s)
- Disease class: ICD-10
- Experimental intervention
- Intervention category
- Primary health outcome(s)
- Analytic technique: Cost Effectiveness Analysis (CEA), Cost Utility Analysis (CUA), Cost Minimization Analysis (CMA), Cost Benefit Analysis (CBA)
- For CUAs:
    i. Description of health condition
    ii. Description of health state
    iii. Health state utility weight
    iv. Utility weight source

Reliability Assessment

Inter-rater and test-retest reliability assessments have been carried out for the citation selection process. This resulted in a percent observed inter-rater agreement of 0.96 and a kappa coefficient, representing chance-adjusted agreement, of 0.91. These values represent almost perfect reliability. Test-retest reliability resulted in a kappa coefficient equal to 0.95. An inter-rater reliability assessment of health state utility weight extraction resulted in a percent observed inter-rater agreement of 0.98 and a kappa coefficient of 0.92.

For more information please contact:

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