



Title Development and Testing of Search Filters to Identify

Economic Evaluations in MEDLINE and EMBASE

Agency CADTH, Canadian Agency for Drugs and Technologies in Health

Suite 600, 865 Carling Ave, Ottawa, Ontario K1S 5S8 Canada;

Tel: +1 613 226 2553, Fax: +1 613 226 5392; publications@cadth.ca, www.cadth.ca

Reference CADTH Technology Report, October 2009.

ISBN 978-1-926680-10-1 (print), ISBN 978-1-926680-11-8 (online)

Aim

To develop search filters that will identify economic evaluations in the MEDLINE and EMBASE databases with maximum sensitivity and levels of precision to meet the needs of health technology assessment researchers; and to obtain data on the relative performance of new and published search filters.

Conclusions and results

Filters produced by NHS EED, NHS QIS, and Royle and Waugh continue to perform with high sensitivity in MEDLINE. None of the published or new filters meet the objectives of high sensitivity (more than 0.95) with a precision of 0.20, or lower sensitivity (greater than 0.79) and enhanced precision (at least 0.50).

Recommendations

Not applicable.

Methods

Several search filters were developed using sets of economic publication records to identify terms that best discriminated economic evaluations from other economic publications. We selected a set of gold-standard citations using the NHS EED filter for identifying economic evaluations. Comparator sets were created by applying this filter to the MEDLINE and EMBASE databases. Sensitivity, specificity, and precision were calculated for each search filter. The relative performance of new and existing filters was tested.

Further research/reviews required

Further analysis of the data and gold-standard records in this report may lead to improved filters. Additional analyses could focus on the performance of lower-frequency terms (below the selected cut-off frequency used in this project) and analysis of phrases and terms in close proximity in the title and abstracts of records.