



## The EMBASE subject heading *Systematic review*: Should we include it in our search filters?

Amanda Hodgson, MLIS; Charlene Argáez, MLIS; Carolyn Spry, BSc, MLIS; Brian Hutton, MSc; Canadian Agency for Drugs and Technologies in Health, Ottawa, Ontario, Canada

### BACKGROUND

- The Canadian Agency for Drugs and Technologies in Health (CADTH) is a national body that provides Canada's federal, provincial, and territorial health care decision makers with credible, impartial advice and evidence-based information about the effectiveness and efficiency of drugs and other health technologies.
- Information specialists at CADTH routinely conduct comprehensive searches in EMBASE for systematic reviews, and they have developed an EMBASE systematic review search filter to retrieve records of this publication type.
- EMBASE is a biomedical and pharmaceutical database. Bibliographic records in EMBASE are indexed with subject headings to facilitate retrieval by researchers. The subject heading *Systematic review* was introduced to the EMBASE thesaurus in 2003.
- A recently published systematic review filter tailored for EMBASE did not incorporate this subject heading.<sup>1</sup>
- A need was identified to investigate *Systematic review* in terms of overall performance in retrieving systematic reviews and to determine the value of including it in established systematic review filters.

### OBJECTIVES

- To assess the value of adding *Systematic review* to established EMBASE systematic review search filters.

### METHODS

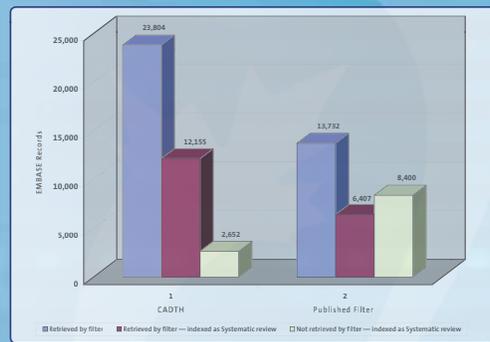
- A literature search was performed to find published research and documentation on the performance of *Systematic review* in EMBASE.<sup>a</sup>
- Retrieval using the subject heading *Systematic review* on its own was compared with retrieval of the established filters without the subject heading in EMBASE from 2006 to June 2008.
- Individual subsets of unique records retrieved by *Systematic review* were extracted by random sample<sup>b</sup> and screened for potential as systematic reviews as defined by the developers of the published systematic review filter.<sup>1</sup>

- Three information specialists performed the literature search and testing of *Systematic review* in the EMBASE database. One research officer extracted the random samples and calculated the confidence intervals.
  - Databases searched: LISTA, MEDLINE, EMBASE, Biosis, CINAHL, and All EBM (ACP Journal Club, Cochrane CENTRAL, Cochrane Methodology Register, Cochrane Database of Systematic Reviews, NHS EED, DARE, HTA). Dates: 2003 to 2008. Languages: English.
  - Random sampling was performed using the sample function in the R programming language.

### RESULTS

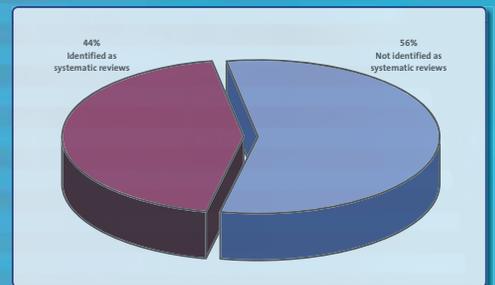
- The literature search did not identify any information on the performance of *Systematic review* in EMBASE.

#### RETRIEVAL BY *SYSTEMATIC REVIEW* VERSUS RETRIEVAL BY TWO *SYSTEMATIC REVIEW* FILTERS



Filters	Not retrieved by filter – indexed as <i>Systematic review</i>	Number of systematic reviews in random samples of 100
CADTH filter	2,652	7% (7/100) (95% CI 2.9% to 13.9%) <sup>b</sup>
Published filter <sup>1</sup>	8,400	8% (8/100) (95% CI 3.5% to 15.2%)

#### RETRIEVAL BY *SYSTEMATIC REVIEW* IN EMBASE — NUMBER OF *SYSTEMATIC REVIEW*S IN A RANDOM SAMPLE OF 100



### CONCLUSIONS

- More systematic reviews were retrieved by the established search filters when the subject heading *Systematic review* was included.
- The small sample sizes used preclude extrapolation to the entire database.
- There is opportunity for more research in the area of EMBASE-specific search filter development and indexing patterns.

### REFERENCE

- Wilczynski NL, Haynes RB. EMBASE search strategies achieved high sensitivity and specificity for retrieving methodologically sound systematic reviews. *J Clin Epidemiol* 2007;60:29–33. Note: Filter selected entitled "Small drop in specificity with a substantive gain in sensitivity."

