



O61

Finding evidence and guidelines made easy: a thesaurus and software application for facilitating semi-automatic indexing of evidence summaries and guidelines

Peter Nyberg, Kimmo Rannanjärvi, Ilkka Kunnamo
Duodecim Medical Publications Ltd, Helsinki, Finland

Introduction: Electronic knowledge databases are most effectively used by searching with search terms. However, most databases are poorly indexed, the indexing vocabulary does not include clinically relevant terms and does not recognize synonyms, and there is no hierarchy of search terms. As a result, all relevant information is not found.

Methods: A clinical vocabulary was developed, utilizing extensive log file statistics of existing evidence and guideline databases to empirically identify search terms that the indexers and users actually use, building a synonym vocabulary, and organizing simple and pragmatic hierarchies of the terms.

A web-based software tool was developed that 1) compares words in an evidence summary or guideline document to the vocabulary, 2) counts the number of occurrences and applies weights (points) according to the location of the word in the document (e.g. heading, bottom line statement, and references got high scores), 3) arranges the found terms into meaningful hierarchic groups, 4) suggests which terms should be included in the index, and 5) assigns these a priority class (key or non-key). This is performed automatically, when an evidence summary or guideline in any structured format is processed by the application. Finally, the suggested index is provided for manual review and editing.

Results: The index terms suggested by the application match closely to those selected by an expert human indexer, and in some cases additional, highly relevant search terms are suggested by the application.

Conclusion: Indexing evidence summaries and guidelines can be effectively improved and searching guidance made more easy and reliable by using an empirically developed clinical thesaurus and an automatic indexing tool.