Abstract

Objective To compare the information obtained from the Medline database using Internet commercial search engines with that obtained from a compact disc (Medline-CD). Methods An agreement study was carried out based on 101 clinical scenarios provided by specialists in internal medicine, pharmacy, gynaecology-obstetrics, surgery and paediatrics. 175 search strategies were employed using the connector AND plus text within quotation marks. The search was limited to 1991-1999. Internet search-engines were selected by common criteria. Identical search strategies were independently applied to and masked from Internet search engines, as well as the Medline-CD. Results 3,488 articles were obtained using 129 search strategies. Agreement with the Medline-CD was 54% for PubMed, 57% for Gateway, 54% for Medscape and 65 % for BioMedNet. The highest agreement rate for a given speciality (paediatrics) was 78.1 % for BioMedNet, having greater -/- than +/- agreement. Conclusions Even though free access to Medline has encouraged the boom and growth of evidence-based medicine, these results must be considered within the context of which search engine was selected for doing the searches. The internet search engines studied showed a poor agreement with the Medline-CD, the rate of agreement differing according to speciality, thus significantly affecting searches and their reproducibility. Software designed for conducting Medline database searches, including the Medline-CD, must be standardised and validated.

Keywords
Medline, Databases, PubMed, reproducibility of results, information storage and retrieval, evidence-based medicine