

Current Research

Compiled by Trish Chatterley

Esparza JM, Shi R, McLarty J, Comegys M, Banks DE. The effect of a clinical medical librarian on in-patient care outcomes. *J Med Libr Assoc.* 2013 July;101(3):185–191. doi: 10.3163/15365050.101.3.007.

Objective: The research sought to determine the effect of a clinical medical librarian (CML) on outcomes of in-patients on the internal medicine service. **Methods:** A prospective study was performed with two internal medicine in-patient teams. Team 1 included a CML who accompanied the team on daily rounds. The CML answered questions posed at the point of care immediately or in emails post-rounds. Patients on Team 2, which did not include a CML, as well as patients who did not require consultation by the CML on Team 1, served as the control population. Numerous clinical and library metrics were gathered. **Results:** Patients on Team 1 who required an answer to a clinical question were more ill and had a longer length of stay, higher costs, and higher readmission rates compared to those in the control group. Using a matched pair analysis, we showed no difference in clinical outcomes between the intervention group and the control group. **Conclusions:** This study is the largest attempt to prospectively measure changes in patient outcomes when physicians were accompanied by a CML on rounds. This approach may serve as a model for further studies to define when and how CMLs are most effective.

Gehanno JF, Rollin L, Darmoni S. Is the coverage of Google Scholar enough to be used alone for systematic reviews. *BMC Med Inform Dec Mak.* 2013;13(7). doi:10.1186/1472-6947-13-7. PMID: 23302542.

Background: In searches for clinical trials and systematic reviews, it is said that Google Scholar (GS) should never be used in isolation, but in addition to PubMed, Cochrane, and other trusted sources of information. We therefore performed a study to assess the coverage of GS specifically for the studies included in systematic reviews and evaluate if GS was sensitive enough to be used alone for systematic reviews. **Methods:** All the original studies included in 29 systematic reviews published in the *Cochrane Database Syst Rev* or in the *JAMA* in 2009 were gathered in a gold standard database. GS was searched for all these studies one by one to assess the percentage of studies which could have been identified by searching only GS. **Results:** All the 738 original studies included in the gold standard database were retrieved in GS (100%). **Conclusion:** The coverage of

GS for the studies included in the systematic reviews is 100%. If the authors of the 29 systematic reviews had used only GS, no reference would have been missed. With some improvement in the research options, to increase its precision, GS could become the leading bibliographic database in medicine and could be used alone for systematic reviews.

Maggio LA, Tannery NH, Chen HC, Cate OT, O'Brien B. Evidence-Based Medicine Training in Undergraduate Medical Education: A Review and Critique of the Literature Published 2006–2011. *Acad Med.* 2013 July;88(7):1022–28. doi: 10.1097/ACM.0b013e3182951959. PMID: 23702528.

Purpose: To characterize recent evidence-based medicine (EBM) educational interventions for medical students and suggest future directions for EBM education. **Method:** The authors searched the MEDLINE, Scopus, Educational Resource Information Center, and Evidence-Based Medicine Reviews databases for English-language articles published between 2006 and 2011 that featured medical students and interventions addressing multiple EBM skills. They extracted data on learner and instructor characteristics, educational settings, teaching methods, and EBM skills covered. **Results:** The 20 included articles described interventions delivered in 12 countries in classroom (75%), clinic (25%), and (or) online (20%) environments. The majority (60%) focused on clinical students, whereas 30% targeted preclinical students and 10% included both. EBM skills addressed included recognizing a knowledge gap (20%), asking a clinical question (90%), searching for information (90%), appraising information (85%), applying information (65%), and evaluating practice change (5%). Physicians were most often identified as instructors (60%); co-teachers included librarians (20%), allied health professionals (10%), and faculty from other disciplines (10%). Many studies (60%) included interventions at multiple points during one year, but none were longitudinal across students' tenures. Teaching methods varied. Intervention efficacy could not be determined. **Conclusions:** Settings, learner levels and instructors, teaching methods, and covered skills differed across interventions. Authors writing about EBM interventions should include detailed descriptions and employ more rigorous research methods to allow others to draw conclusions about efficacy. When designing EBM interventions, educators should consider trends in medical education

(e.g., online learning, interprofessional education) and in health care (e.g., patient-centered care, electronic health records).

Steeleworthy M, Dewan P. Web-based citation management systems: which one is best? *Partnersh: Can J Libr Info Pract Res*. 2013;8(1).

Librarians and researchers have long used citation management systems as research tools to help scholars organize their work, improve workflows, and ultimately save time. For many years, RefWorks has been the dominant citation management tool in many parts of Canada: the maturity of the product and its integration with many scholarly databases reassures users that it works well with these resources. However, a number of competitors now offer citation management systems that are as strong as RefWorks but offer different features to the user, therefore warranting a comparison with this leading tool. This paper reviews RefWorks, Zotero, WizFolio, and Mendeley, which are all popular citation management systems that either have a long history of use or are now gaining traction in Canadian academic circles. To compare these tools, we examined their import capabilities as well as their organizing, searching, annotating, and sharing functions. This review will interest both librarians and researchers who are considering alternative citation management systems at either the personal or organizational level.

Waffenschmidt S, Janzen T, Hausner E, Kaiser T. Simple search techniques in PubMed are potentially suitable for evaluating the completeness of systematic reviews. *J Clin Epidemiol*. 2013 June;66(6):660–665. doi:10.1016/j.jclinepi.2012.11.011. PMID: 23419611.

Objective: The Institute for Quality and Efficiency in Health Care (IQWiG) assesses the added benefit of new drugs by means of company dossiers. The pharmaceutical company performs the information retrieval, which is then

assessed by IQWiG. Our aim was to determine whether PubMed's Related Citations (RelCits) and (or) a simple-structured Boolean search (SSBS) are efficient and reliable search techniques to assess the completeness of an evidence base consisting of published randomized controlled trials (RCTs). **Study Design and Setting:** Retrospective analysis of citations included as relevant in systematic reviews (SRs) of drugs. The proportion of relevant citations identified by the above-mentioned search techniques was determined. Relative sensitivity, precision, and the number needed to read (NNR) were then calculated. **Results:** A total of 19 SRs included 330 relevant PubMed citations. The single techniques yielded either insufficient completeness, reliability, or efficiency. The first 20 RelCits plus SSBS achieved high completeness and reliability (sensitivity: 98.1%, range: 80–100%) and sufficient efficiency (precision: 5.0%, NNR: 25). The first 50 RelCits plus SSBS achieved slightly better completeness and reliability, but slightly worse efficiency. **Conclusion:** Combining the first 20 RelCits and an SSBS in PubMed is a suitable method to assess the completeness of an evidence base of published RCTs.

Wiersma G. What's the delay? Managing e and p publication dates. *Libr Collect, Acquis, Tech Serv*. 2013. [Epub ahead of print]. doi: 10.1016/j.lcats.2013.03.001

This case study describes the challenges of acquiring eBooks on an approval plan due to publication delays between print and electronic formats. The purpose of this analysis was to determine the average delay between print and eBook publication dates so that appropriate hold periods could be built into the libraries' approval plan. Print publication dates were compared to eBook publication dates for approximately 30,000 eBooks to calculate the average delay between print and eBook availability. The data was further analyzed to calculate average delays for select publishers and subjects.