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How do we teach clinicians where the resources for best evidence are?*

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Abstract

The Sinai Health System (SHS) Library created an online tool kit that groups electronic resources into tiers based on the hierarchy of evidence, in a step-by-step approach. Mobile application options are available for most of the resources. The goal is to provide a simple, practical teaching tool to help clinicians easily find quality health information from the vast offerings of publishers. Since its publication in 2008, the original tool kit received positive feedback from medical students and in-house clinical staff. As well, the tool kit has been incorporated into the teachings of the Royal College of Surgeons and Physicians of Ontario, Ministry of Public Health, and various hospital and patient libraries across the Greater Toronto Area. The SHS Library encourages other libraries and institutions to adapt the tool kit for their users. In the future, this tool kit will be revised to tailor to the research needs of nursing and allied health staff.

Key words: evidence-based medicine; abstracting and indexing; biomedical research/education; databases; teaching tools, medical librarians.

Medical librarians ensure high-quality evidence is made available to health care professionals in an efficient manner. As electronic resources proliferate and evolve, and given the lack of practical guidelines or tools that can guide clinicians' questions, finding authoritative information at the time of need is a considerable barrier for clinicians.

Sinai Health System (SHS) is an internationally recognized academic health sciences centre affiliated with the University of Toronto. With more than 28,809 admissions a year, clinicians at SHS are often challenged with locating the best available evidence at the time of need. The overwhelming number of electronic resources available, coupled with long hours of clinical work which includes healthcare providers working in multiple locations, our library recognizes how staff may be prevented to easily and seamlessly seek information in an efficient and timely manner. In response, the Sinai Health System Library created an online tool kit that evaluates, organizes, summarizes and ultimately provides immediate access to high-level evidence-based electronic resources that support clinical queries.

Since its publication in 2008, the original tool kit received positive feedback from medical students and in-house clinical staff (1, 2). The tool kit was also updated in 2017 and subsequently published in Canadian Family Physician (3). The revised tool kit includes updated electronic resources and new mobile applications, and its overall structure mirrors the 6S pyramid of evidence (4, 5). The tool kit serves as a critical pathway in the field of medical research and also functions as a teaching model (6). For example, the tool kit has been incorporated into the teachings of the Royal College of Surgeons and Physicians of Ontario, Ministry of Public Health, and various hospital and patient libraries across the Greater Toronto Area and in medical schools internationally such as the Qatar University.

The tool kit organizes electronic resources into tiers that reflect the 6S pyramid of evidence *(Figure 1)*. Moreover, the tool kit functions as an algorithm that guides users to the most relevant medical resources based on a distinct clinical query (5, 6). For example, the initial step leads users to formulate their clinical

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query within the structure of PICO (7). The subsequent steps lead users to the best evidence-based resources, with hyperlinks to scope notes that describe the authority, content and focus of each resource. The tool kit is designed to lead users through the life cycle of a clinical query, with rapid answers to common questions found at the outset via Best Practice Guidelines, Systematic Reviews and Meta-Analyses. Under-researched queries lead users to prime sources of single studies (clinical trials, case studies, reports). If a clinical query cannot be answered by the tool kit, it is suggested the topic is prime for an original research protocol.

The tool kit continues to add value to our hospital. The tool kit works to ensure that high-quality information reaches clinicians and patients when it is needed, subsequently saving time and reducing costs (8). The updated tool kit encourages optimal use of electronic resources and available mobile apps but, most importantly, it supports the practical application of evidence-based clinical resources in a timely manner. The SHS Library encourages other libraries and institutions to adapt the tool kit for their users. In the future, this tool kit will be revised to tailor to the research needs of nursing and allied health staff.

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