

AIHA Internet Resources Digest

Supporting Access to High Quality Online Resources

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Spotlight on: Critically Appraised Topics



Critically appraised topic (or CAT) is a short summary of evidence on a topic of interest, usually focused around a clinical question. A CAT is like a shorter and less rigorous version of a systematic review, summarizing the best available research evidence on a topic. Usually more than one study is included in a CAT.

Collections of CATs

BestBETs



BestBETS (Best Evidence Topic Reports) were developed in the Emergency Department of Manchester Royal Infirmary, UK, to provide rapid evidence-based answers to real-life clinical questions, using a systematic approach to reviewing the literature.

BETs take into account the shortcomings of much current evidence, allowing physicians to make the best of what there is. Although BETs initially had an emergency medicine focus, there are a significant number of BETs covering cardiothoracics, nursing, primary care and paediatrics. Over 1,700 BETs produced by their registrars but also by a worldwide group.

The appraisal tool checklists are available for use online or downloading as an aid to

the critical appraisal process. Published BETs appear regularly in the EMERGENCY MEDICINE JOURNAL, ARCHIVES OF DISEASE IN CHILDHOOD and INTERACTIVE CARDIOVASCULAR AND THORACIC SURGERY.

All BETs have the same format

- Clinical scenario – this describes the problem facing the clinician
- A three or four part question – this encapsulates the problem in an answerable form
- An explicit search strategy – typically across several databases (e.g. Medline, Cochrane)
- A tabulated analysis of the papers found
- A discussion of the papers
- A clinical bottom line

<http://www.bestbets.org/>

Eastman Institute for Oral Health - Critically Appraised Topics



All first year residents at the Eastman Institute for Oral Health are required to take a course in Evidence Based Dentistry. Residents are required to create a critically appraised topic (CAT) by developing a PICO question, searching the dental literature, appraising the evidence and providing a bottom line. This collection contains CATs created by the residents of the Eastman Institute for Oral Health.

<https://urresearch.rochester.edu/viewInstitutionalCollection.action;jsessionid=BE73F104E02A2A2F5A2C7157783665EE?collectionId=237>

UTHSCSA Dental School Oral Health CAT library



The University of Texas at Health Science Center San Antonio School of Dentistry Oral Health searchable CAT library. This online library provides users with up-to-date evidence-based answers to focused clinical questions. Includes Clinical Cats videos. The CATs are updated as new research is published.

<https://cats.uthscsa.edu/>

Occupational Therapy CATs



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“When professionals summarize a single study, the outcome is a critically appraised paper (or CAP). CATs and CAPs are one way for busy clinicians to collate and share their appraisals. CATs are also increasingly being used as a university assignment to assess student's skill and knowledge, and many of the more recent topics were completed by final year, Australian undergraduate occupational therapy students “ (University of Western Sydney).

This site contains CATs and CAPs focussing on occupational therapy interventions. The earlier topics were completed by Australian occupational therapists participating in a year-long research project between 2002 and 2003. Completion of a CAT or CAP was the major assignment for the study, and resulted in the development of the web-site. The aim was to locate current best evidence, such as systematic reviews and randomized controlled trials. However, in the absence of such research, lower level studies were found and appraised.

<http://www.otcats.com/>

Training Materials

CATwalk: A Guide to Critically Appraised Topics



CATs were developed in the early 1990s as a means of teaching the principles of evidence-based medicine. Different acronyms have emerged in various specialties, but they all do essentially the same thing.

When preparing a CAT, you will:

- Formulate a clinical question

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- Search for clinical research that might address the question
- Evaluate that research for
 - Validity
 - Importance
 - Applicability to care of your patient
 - Write and file a summary page

<http://guides.library.ualberta.ca/catwalk>

CAT Maker



CATmaker is a computer-assisted critical appraisal tool, which helps you create Critically Appraised Topics (CATs), for the key articles you encounter about Therapy, Diagnosis, Prognosis, Aetiology/Harm and Systematic Reviews of Therapy.

<http://www.cebm.net/catmaker-ebm-calculators/>

Journal Articles

Kersten HB, Frohna JG, Giudice EL. Validation of an Evidence-Based Medicine Critically Appraised Topic Presentation Evaluation Tool (EBM C-PET). *J Grad Med Educ.* 2013 Jun;5(2):252-6.



The authors sought to develop a reliable tool to evaluate residents' EBM skills in the critical appraisal of a research article, the development of a written EBM critically appraised topic (CAT) synopsis, and a presentation of the findings to colleagues. Instrument development used a modified Delphi technique. They defined the skills to be assessed while

reviewing (1) a written CAT synopsis and (2) a resident's EBM presentation. The EBM Critically Appraised Topic Presentation Evaluation Tool (EBM C-PET) is composed of 14 items that assess residents' EBM and global presentation skills. Resident presentations (N = 27) and the corresponding written CAT synopses were evaluated using the EBM C-PET. The EBM C-PET is a reliable tool to document resident competence in higher-level EBM skills.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3693689/>

Crowell MS, Tragord BS, Taylor AL, Deyle GD. Integration of critically appraised topics into evidence-based physical therapist practice. *J Orthop Sports Phys Ther.* 2012 Oct;42(10):870-9.



“A critically appraised topic document (a standard 1-page summary of the literature appraisal and clinical relevance in response to a specific clinical question) is a valuable tool in evidence-based practice. The creation of a critically appraised topic makes the educational process cumulative instead of duplicative.”

This clinical commentary discusses the advantages and disadvantages of a critically appraised topic, the implementation of this process, and the tailoring of search strategies to find diagnostic and screening strategies.

<http://www.jospt.org/doi/abs/10.2519/jospt.2012.4265?>

Sadigh G, Parker R, Kelly AM, Cronin P. How to write a critically appraised topic (CAT). *Acad Radiol.* 2012 Jul;19(7):872-88



„A format for sharing information in EBP is the critically appraised topic (CAT). A CAT is a standardized summary of research evidence organized around a clinical question, aimed at providing both a critique of the research and a statement of the clinical relevance of results. In this review, we explain the five steps involved in writing a CAT for a clinical purpose ("Ask," "Search," "Appraise," "Apply," and "Evaluate") and introduce some of the useful electronic resources available to help in creating CATs.“

<http://www.sciencedirect.com/science/article/pii/S1076633212000918>

About the AIHA Internet Resources Digest

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If you have a suggestion for a Digest topic, or would like to contribute information about Internet resources, please contact [ibra\[at\]zadar.net](mailto:ibra[at]zadar.net).

Back issues of the *Internet Resources Digest* for 2011-2015 are archived at <http://www.healthconnect-intl.org/resources.html>

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