



Tool: Clinical guideline development – Locating evidence-based materials

Note: This document is provided for information purposes only. Health professional associations making use of this resource should revise and modify it for use in their specific circumstances.

This tool provides background information on levels of evidence and how to effectively search for evidence. It can be used to assist in the development of clinical practice guidelines. A list of selected, freely available resources is included.

The tool addresses the following:

- Levels of evidence;
- Clinical questions and study design;
- Hierarchy of evidence;
- Evidence-based resources.

Acronyms:

ACP – American College of Physicians
 DARE – Database of Abstracts of Reviews of Effects
 EB – Evidence-based
 CPG – Clinical practice guidelines
 EMR – Electronic medical record
 HTA – Health technology assessment
 NeLM – National electronic Library for Medicines

See also Tool 6.2 – Development process and structure of clinical guideline

1. Levels of Evidence



There are different interpretations and descriptions of levels of evidence. This represents a common view, showing the abundance of material available at lower levels of evidence and the relatively small amount available at higher levels of evidence.

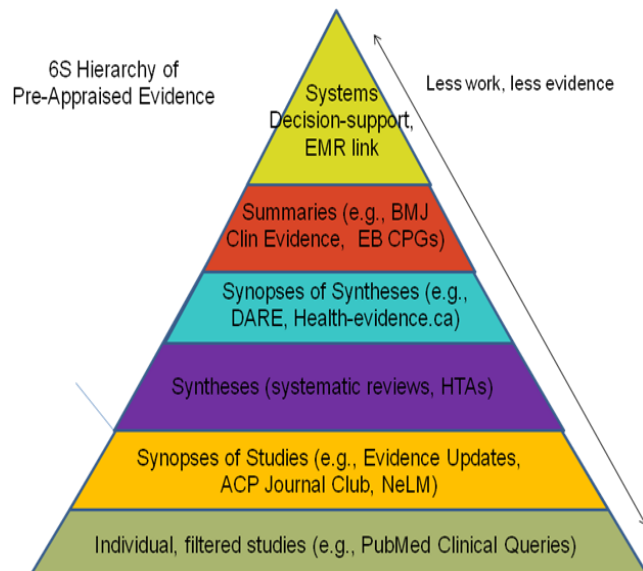
For a definition of the various study designs and other evidence-based terms, see:
http://www.nccmt.ca/glossary/all_terms-eng.html.

2. Clinical Questions and Study Design

Different kinds of clinical questions are best answered by different research designs and methods. Choose the design appropriate to your question.¹

Question	Study Design
Etiology / Harm	RCTs, Case-control or Cohort studies, Case series
Diagnosis	Diagnostic validation studies, Prospective studies, Gold standard comparison
Prognosis	Cohort studies, Case-control or Case-series
Therapy	RCTs, Systematic reviews, Meta-analyses
Prevention	RCTs, Case-control or Cohort studies, Systematic Reviews, Meta-Analyses
Cost Effectiveness	Economic analyses
Quality of Life	Qualitative studies

3. Hierarchy of Evidence²



Where possible, reduce your work and access pre-appraised, pre-packaged sources of evidence. Many resources are freely available.

While desirable, the availability of evidence at the systems level is limited and implies integration between the regularly updated research evidence contained in a clinical information system and the individual electronic patient record. The second highest level, summaries, includes rigorous, evidence-based point-of-care tools and clinical practice guidelines, such as those developed by the National Institute for Health and Clinical Excellence (NICE), <http://guidance.nice.org.uk/>.

4. Evidence-Based Resources

Note: Some resources require free registration or are dependent on your country's eligibility (where access is controlled by your internet service provider (ISP) address).

Each tool has its own strengths and weaknesses. Many allow you to create and store personal profiles and queries. Explore the tools and choose what works best for you.

a) Pre-Appraised Resources

Summaries

TRIP database (Turning Research into Practice) - www.tripdatabase.com/

Synopses of Syntheses

CRD databases (DARE, HTA, NHS EED) – www.crd.york.ac.uk/crdweb/

Health-evidence.ca – health-evidence.ca

Syntheses

Cochrane Library - www.thecochranelibrary.com

Access eligibility:

www.thecochranelibrary.com/view/0/FreeAccess.html

www.thecochranelibrary.com/view/0/FreeAccess.html#Low-Income

PubMed - www.ncbi.nlm.nih.gov/pubmed/ (*N.B. clinical queries – systematic review filter*)

HTA organizations, e.g. Health Intervention and Technology Assessment Program (Thailand) -

<http://www.hitap.net/en>

Synopses of Studies

Evidence Updates – plus.mcmaster.ca/evidenceupdates/

National electric Library for Medicine - www.nelm.nhs.uk/en/NeLM-Area/Evidence/

Filtered Studies

PubMed - www.ncbi.nlm.nih.gov/pubmed/ (*N.B. clinical queries, My NCBI*)

SOGC Scientific Review - sogc.org/scientific/index_e.asp (Includes international women's health.

SOGC members receive monthly notifications, access to back issues)

b) Handbooks and Guides

WHO Handbook for Guideline Development (2012)

www.who.int/iris/bitstream/10665/75146/1/9789241548441_eng.pdf

Centre for Evidence-Based Medicine

www.cebm.net/index.aspx?o=1157

McMaster University

fhswedge.csu.mcmaster.ca/cepftp/qasite/CriticalAppraisal.html

How to extract salient points from a published clinical study

Craig J. Clin Pharm 2012;4:134-5.

www.pjonline.com/files/rps-pjonline/pdf/CPMay_134-135.pdf

c) Statistics

Norman GR, Streiner, DL. PDQ statistics. 3rd ed. Hamilton: BC Decker; 2003. Available: fhs.mcmaster.ca/surgery/documents/pdq_stats.pdf.

Gigerenzer G et al. Helping doctors and patients make sense of health statistics. *Psychol Sci Public Interest* 2008;8(2):53-96. Available: www.psychologicalscience.org/journals/pspi/pspi_8_2_article.pdf.

d) Databases & Libraries:

Collaboration for Evidence-Based Health Care in Africa
www.cebha.org/links/tools

Global Library of Women's Medicine
www.glowm.com/

Government Information: International Documents (include NGO search, above)
<http://www.libraries.iub.edu/index.php?pageId=1000596>

HINARI
www.who.int/hinari/en/
Register for free or low-cost access through your institution

International Network for the Availability of Scientific Publications
Medicine and Health Sciences:
www.inasp.info/file/9cb84877221680dc64d392765c7faa03/foal-medicine-and-health-sciences.html
All Disciplines:
www.inasp.info/file/26280b439d6e401131b8c9eb0077f2b8/free-and-open-access-links.html

Lancet Global Health Portal
www.lancet.com/global-health

LILACS database
lilacs.bvsalud.org/en/
Comprehensive index of scientific and technical literature of Latin America and the Caribbean (interface available in Portuguese, Spanish, English) – part of Virtual Health Library
regional.bvsalud.org/php/index.php?lang=en

WHO database
dosei.who.int/uhtbin/cgiirsi/Mon+Aug+20+20:05:51+MEST+2012/0/49
WHOLIS is the World Health Organization's library database... Access to WHO materials in all available languages improves with the upcoming implementation of the Institutional Repository for Information Sharing (IRIS) (apps.who.int/iris/?locale=en).

WHO Global Health Observatory
apps.who.int/ghodata/

WHO Reproductive Health Library
apps.who.int/rhl/en/

e) Journal Resources

Directory of Open-Access Journals
www.doaj.org/doi?cpid=24&func=subject
 Ob/Gyn
www.doaj.org/doi?func=subject&cpid=34&uiLanguage=en

Royal Tropical Institute (NL) - Free Electronic Journals (*multi-disciplinary*)
www.kit.nl/kit/Electronic-journals
 Click on "Free journals only" tab

Scientific Electronic Library Online (SciELO)
www.scielo.org/php/index.php?lang=en
 ~ 300 scientific journals of Brazil, Chile, Cuba, Spain, Venezuela and other Latin America countries.

f) Guidelines

Médecins sans frontières
www.refbooks.msf.org/MSF_Docs/En/MSFdocMenu_en.htm
 Includes reference books e.g., *Obstetrics in remote settings*

National Guideline Clearinghouse
guideline.gov/index.aspx
 Includes some international, low- and middle-income country guidelines

WHO Guidelines
www.who.int/publications/guidelines/en/index.html

g) Clinical Trial Registries

ClinicalTrials.gov
clinicaltrials.gov/
 Lists trials from 179+ countries. Use the map to target region(s) of interest.
clinicaltrials.gov/ct2/search/map

International Clinical Trials Registry Platform Search Portal (WHO)
apps.who.int/trialsearch/

Pan African Clinical Trials Registry
www.pactr.org/

h) Miscellaneous Tools

Country-based search engines

www.philb.com/countryse.htm

e.g., Burkina Faso

www.philb.com/cse/burkina.htm

International Organizations and Ministries of Health

www.ucl.ac.uk/ich/services/library/global-health/internationalorganisations

Bibliography:

1. Glover, Jan, and Lei Wang. *Find it fast: the clinical question:*
[http://www.med.yale.edu/library/education/guides/screencasts/finditfast/finditfast_2/.](http://www.med.yale.edu/library/education/guides/screencasts/finditfast/finditfast_2/))
2. Accessing pre-appraised evidence: Fine-tuning the 5S model into a 6S model. *ACP J Club* 2009;151(3):2-3. Available:
http://plus.mcmaster.ca/macplusfs/documentation/Haynes_6S_Editorial.pdf