

EFFECTIVENESS

Matters

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*Accessing the
evidence on
clinical
effectiveness*

- Health care professionals seeking to practice evidence-based health care need to know how to access and interpret clinical effectiveness resources efficiently.
- Excellent collections of clinical effectiveness information, such as the *Cochrane Library*, are now available.
- Summaries of research evidence are often available in easy to use formats such as *Clinical Evidence* and the *Effective Health Care* bulletins.
- Effective use of information services and libraries can save time in identifying clinical effectiveness information.
- There are services that will carry out searching on behalf of health professionals, and many libraries and local initiatives offer training in search skills.

Effectiveness Matters is an update on the effectiveness of health interventions for practitioners and decision-makers in the NHS. This issue has been compiled by Julie Glanville, NHS Centre for Reviews and Dissemination, University of York and Carol Lefebvre, UK Cochrane Centre. *Effectiveness Matters* is extensively peer reviewed by subject area experts and practitioners.

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Background

Health care professionals are being encouraged to ensure that their practice is based on the best evidence from well-conducted research. Clinical governance in the NHS has given all health organisations, including primary care groups, a statutory duty to seek quality improvements in the health care delivered by their organisation.^{1,2}

High quality research evidence is increasingly accessible, often in 'easy to use' formats. There are many initiatives to transform complex research material into usable overviews, guidance, guidelines and patient information.^{3,7} These are complemented by national developments such as the pilot National electronic Library for Health (NeLH) which provides access to important research evidence, such as Cochrane reviews and NICE appraisals.

This issue of *Effectiveness Matters* provides advice on how to access the best available sources of research evidence on clinical effectiveness.

Although there are several excellent collections of systematic reviews, guidelines and critical appraisals of research available, there is no single comprehensive index to effectiveness resources. This means a search may involve looking in several resources, preferably in order of usefulness to save time and effort. Because they focus on clinical effectiveness, a search in these resources can be more efficient than searching large general medical databases such as MEDLINE. Many clinical effectiveness resources also offer added value in terms of commentaries or interpretation. This bulletin describes resources; more detail on how to search these resources is available elsewhere.^{8,9}

The Cochrane Library

The first place to look for up-to-date systematic reviews of the effects of health care interventions is *The Cochrane Library*. It contains *The Cochrane Database of Systematic Reviews (CDSR)*, a unique, cumulative collection of full-text systematic reviews. These reviews are valuable not only for their rigorous methodology but also because they are periodically updated as new research evidence is published and in response to valid criticisms. If there is no up-to-date Cochrane Review in the CDSR on the subject of interest, there are summaries of other quality-assessed reviews (including reviews of diagnostic tests) in the *Database of Abstracts of Reviews of Effectiveness (DARE)*. In addition there are abstracts of technology assessments in the *Health Technology Assessment (HTA)* database. DARE also serves as an index to the *Effective Health Care* bulletins and the *Effectiveness Matters* series.

In addition to systematic reviews, the *Cochrane Library* is valuable because it contains a large

database of (unevaluated) reports of randomized controlled trials (RCTs): the *Cochrane Controlled Trials Register (CCTR)*. If reviews are unavailable, well-conducted RCTs provide the next best level of research evidence.

A successful search of *The Cochrane Library* can save much time and effort because of its focus on high quality systematic reviews of the research evidence. *The Cochrane Library* is available as part of the pilot NeLH: access will be free to all health professionals and academic users in England on registration for a password. It is also available in health and medical libraries and via Doctors.net. Non-subscribers can search abstracts of Cochrane reviews on the NHS Centre for Reviews and Dissemination web site (via the DARE database), and also via MEDLINE and the Cochrane Collaboration web sites. Free training in searching the Cochrane Library is available from the NHS Centre for Reviews and Dissemination (CRD), and may also be available from local health libraries.

The most effective approach to searching *The Cochrane Library* is to use both text words and Medical Subject Headings (MeSH) to ensure that relevant records are not missed. Reviews on *The Cochrane Library* can be large documents and searches looking for the simple presence of two (or more) words in the same record may retrieve large numbers of irrelevant records. It is therefore advisable to perform more focused searches using 'proximity operators' (NEAR and NEXT) when constructing a search. They ensure that search terms are related contextually. For example 'colon NEAR cancer' will be more likely to find records about colon cancer than searching for 'colon AND cancer'. NEAR ensures that the words appear within six words of each other and are thus more likely to be related in a meaningful way.

Overviews of the research evidence

There are other helpful collections which summarise the research evidence across broad subject areas, and which are usually available in paper and on the Internet. *Clinical Evidence* summarises the results of reviews and other high quality evidence to answer specific clinical questions, and is updated every six months. It is available to health professionals and academics in England via the pilot NeLH.

The Health Evidence Bulletins Wales are evidence-based summaries of treatments in broad disease areas, such as mental health, cancers and injury prevention. *Effective Health Care* bulletins and the *Effectiveness Matters* series (currently funded by NICE) summarise the best evidence from published research. Other collections of reviews, technology assessments and appraisals can be found at the web sites of the National Institute for Clinical Excellence (NICE) and the National Coordinating Centre for Health Technology Assessment (NCCHTA).

Indexes to clinical effectiveness resources

Clinical effectiveness publications appear in a range of formats which can make them difficult to locate. Searchable indexes are therefore highly important, even given time lags between publication and appearance in an index. The *Turning Research into Practice (TRIP)* database is a free Internet search service that covers a wide range of UK and US clinical effectiveness resources and evidence-based guidelines. It indexes many of the resources mentioned in this document and can be searched by topic. There is a link to the TRIP database from the NeLH.

Netting the evidence is another useful Internet tool which provides a route into the many available resources which can be used to inform evidence-based health care.

Journal clubs and critical appraisal journals

There are further routes to assessed and value-added evidence publications. *Evidence-Based Medicine*, *Evidence-Based Nursing* and other journals in the *Evidence-Based* series assess and comment on high-quality published reviews and primary studies. *Evidence-Based Medicine* is cumulated into a database, *Best Evidence*.

Bandolier highlights new research evidence and conducts critical appraisals of research along with brief reviews.

Bibliographic databases

If the focused resources described above are not available or do not identify reviews on a topic of interest, it may be desirable to search other databases. Large databases such as *MEDLINE* or *PsycINFO* (a major database for psychological research) provide access to a wealth of unassessed research evidence. However, further steps will be required to obtain and assess the full texts of records retrieved. There are growing numbers of hybrid services such as *Ovid Evidence-Based Medicine Reviews* which package Cochrane Reviews and *DARE* with *MEDLINE*. Advice on the local availability of these resources and how to search them should be obtainable from health libraries.

The SumSearch service in the USA gives searchers the opportunity to carry out searches across a range of resources including *MEDLINE*, *DARE* and selected journals, and presents the results in a useful hierarchy including 'broad discussions', systematic reviews and trials. A link to SumSearch is available from the NeLH.

A number of predesigned systematic review search filters (collections of search terms) are available for *MEDLINE* to which a searcher need only add

Box 1: Selected key clinical effectiveness resources

This list is indicative and oriented to the UK. Further resources are listed on the CRD web site or can be obtained by contacting CRD.

Bandolier

<http://www.jr2.ox.ac.uk/bandolier/>
Bandolier, Pain Relief, The Churchill, Headington, Oxford OX3 7LJ, UK

Best Evidence 4 database

<http://www.bmjpub.com/template.cfm?name=bmjhome>
BMJ Publishing, BMA House, Tavistock Square, London WC 1 H 9JR.

Clinical Evidence

<http://www.clinicalevidence.org>
BMJ Publishing, BMA House, Tavistock Square, London WC 1 H 9JR.

Cochrane Collaboration

<http://www.cochrane.de>

Cochrane Library

<http://www.nhs.uk/nelh/>
Update Software, Summertown Pavilion, Middle Way, Oxford OX2 7LG.

<http://www.update-software.com/cochrane/cochrane-frame.html>

Database of Abstracts of Reviews of Effectiveness (DARE) see NHS Centre for Reviews and Dissemination

Effective Health Care Bulletins see NHS Centre for Reviews and Dissemination

Health Evidence Bulletins Wales

<http://hebw.uwcm.ac.uk/>

National Coordinating Centre for Health Technology Assessment (NCCHA)

<http://www.hta.nhsweb.nhs.uk/>

National Electronic Library for Health (NeLH)

<http://www.nhs.uk/nelh/>

National Institute for Clinical Excellence (NICE)

<http://www.nice.org.uk/nice-web/>

Netting the evidence

<http://www.shef.ac.uk/~scharr/ir/netting>

NHS Centre for Reviews and Dissemination (NHS CRD)

<http://www.york.ac.uk/inst/crd>

DARE, NHS Economic Evaluation Database, HTA database, Effective Health Care bulletins and Effectiveness Matters. NHS Centre for Reviews and Dissemination, University of York, York, YO10 5DD

NHS Economic Evaluation Database see NHS Centre for Reviews and Dissemination

Ovid Evidence-Based Medicine Reviews.

<http://www.ovid.com/>
Ovid Technologies Ltd., 107 Hammersmith Grove, London, W6 0NQ

PubMed

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>

Search filter collections.

<http://www.mssm.edu/library/ebm/ebmhedges.htm>

<http://www.york.ac.uk/inst/crd/search.htm#MEDLINE>

SumSEARCH

<http://SUMSearch.uthscsa.edu/searchform4.htm>

TRIP database

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

specific subject terms. Some versions of *MEDLINE*, such as PubMed Clinical Queries, offer built-in filters which can focus on treatment, prognosis and other options. Searchers should be aware that filters retrieve research of varying quality and that quality assessment remains the task of the searcher.

Information Support

Many health professionals may not have the time, resources or skills to access these services effectively. However, there are often specialists trained in searching who can help.¹⁰⁻¹² Many health professionals have access to librarians or other information initiatives. Some health libraries and information services will carry out searches on behalf of health professionals. Contacting a local health care librarian will help to identify which resources are available locally and whether assistance is available in terms of training or performing searches. When approaching services for information on a specific effectiveness topic it is always helpful to prepare as clear a question as possible in advance.¹³

There are also specialist information services, such as the CRD Information Service, which have been funded to provide assistance in obtaining information from the best available research evidence.¹⁴ These services vary in their remit, the extent of their assistance and geographic coverage, but can provide valuable help to busy health professionals. A selected list of specialist information services which focus on searching for research evidence is available from the CRD Information Service.

Conclusion

High quality clinical effectiveness information to inform health care practice is increasingly available. The best strategy to locate this information is to search key focused resources or to use any available support services offered by librarians and trainers.

References

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14. NHS Centre for Reviews and Dissemination Information Service. Provides a free enquiry service about clinical effectiveness and cost-effectiveness information. For more information, contact: Tel: 01904 433707 (9am - 5.15pm, Monday - Friday); Fax: 01904 433661; E-mail: nhscred-info@york.ac.uk.

FURTHER INFORMATION

If you would like further information please contact:

General Enquiries: 01904 433634

Information Service

(including databases): 01904 433707

Publications: 01904 433648

Fax: 01904 433661

Email: revdis@york.ac.uk

University of York, Heslington, York, YO10 5DD.

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*Promoting the application
of research-based knowledge
in health care.*