

EFFECTIVENESS

Matters

.....

The Database of Abstracts of Reviews of Effects (DARE)

- Systematic reviews are useful tools for busy decision-makers because they identify, appraise and synthesise the available research evidence on a particular topic.
- Many thousands of systematic reviews relevant to health care have been published. However, they can be difficult to locate and their quality is variable.
- DARE (the Database of Abstracts of Reviews of Effects) contains summaries of systematic reviews which have met strict quality criteria. Each summary also provides a critical commentary on the quality of the review.
- DARE covers a broad range of health care related topics and can be used for answering questions about the effects of health care interventions, as well as for developing clinical guidelines and policy making.
- DARE is available free of charge on the internet (<http://nhscrd.york.ac.uk>), and as part of the Cochrane Library.
- Alternatively, DARE can be searched, on your behalf, by CRD information staff (tel: 01904 433707 or email nhscrd-info@york.ac.uk).

Funding for *Effectiveness Matters* is provided by NICE. The NHS Centre for Reviews and Dissemination is funded by the NHS Executive and the Health Departments of Wales and Northern Ireland. The views expressed in this publication are those of the authors and not necessarily those of NICE, the NHS Executive or the Health Departments of Wales or Northern Ireland.

Vol 6, Issue 2, December 2002

THE UNIVERSITY *of* York

NHS CENTRE FOR REVIEWS AND DISSEMINATION

Why systematic reviews are important

Good quality research about the effects of health care interventions can help clinicians and policy-makers to make decisions. However, it can be difficult to identify the research relevant to a particular question from the overwhelming quantity of published medical literature and individual research studies vary in quality. They can also have conflicting results and fail to set their findings in the context of previous studies.¹ Systematic reviews identify, appraise and synthesise research evidence from individual studies and are therefore valuable sources of information. Systematic reviews differ from other types of review in that they follow a strict scientific design to ensure that as much of the relevant research base as possible has been considered and that the original studies are appraised and synthesized in a valid way. These methods minimise the risk of bias and are transparent, thus enabling replication.^{2,3}

There are three key issues for decision-makers who wish to use systematic reviews. Firstly, just as is the case with individual studies, systematic reviews may be difficult to identify as they are published in many formats and sources, and even those which are indexed in major bibliographic databases may not be indexed consistently.⁴ Secondly, many systematic reviews have methodological flaws which may compromise their conclusions.⁵ Finally, the full reports of a systematic review can take a long time to read and appraise.

The role of DARE (the Database of Abstracts of Reviews of Effects)

DARE can help with these problems and save time and effort for busy decision-makers. DARE is a database of abstracts of quality-assessed systematic reviews of the effects of health care interventions. It is produced by the NHS Centre for Reviews and Dissemination (CRD) at the University of York. The Centre has been conducting and appraising reviews for more than eight years. Reviews are identified by hand searching key medical and related journals, regular searching of bibliographic databases and by scanning 'grey' literature such as conference abstracts, reports and theses. These reviews are then assessed for inclusion against pre-determined criteria. Details of the criteria used to assess reviews for inclusion on DARE can be found in Box 1. For reviews which meet these criteria, detailed abstracts are written describing the review, including the methods, results and conclusions, with a commentary on the overall quality of the review.

What kind of topics does DARE cover?

DARE aims for a broad coverage of health care related topics and includes reviews in fields as diverse as public health, health promotion, pharmacology, surgery, psychology and the organisation and delivery of healthcare. Examples of included reviews are 'A meta-analytic review of the effect of exercise on smoking cessation'⁶ and 'Sedation in the intensive care unit: a systematic review'.⁷ There are currently over 2200 detailed abstracts of reviews on the database and around 30-40 are added each month.

Who uses DARE and why?

DARE is a key resource for answering questions about the effects of health care interventions,

Box 1

How systematic reviews become included on DARE

Abstracts and titles of candidate reviews are identified by searches as described above.

Papers are retrieved if they might be a systematic review evaluating the effects of one or more interventions, or ways of organising health care.

Potential reviews are examined by two researchers in the light of the following five criteria. They must meet at least four criteria, of which criteria 1 and 2 are mandatory, for a structured abstract to be written.

1. Are inclusion/exclusion criteria reported relating to the primary studies which address the review question?
2. Is there evidence of a substantial effort to search for all relevant research?
3. Is the validity of included studies adequately assessed?
4. Is sufficient detail of the individual studies presented?
5. Are the primary studies summarised appropriately?

Box 2

Is paroxetine (Seroxat) effective in Irritable Bowel Syndrome (IBS)?

www.attract.wales.nhs.uk/question_answers.cfm?question_id=846

Does Vitamin E have a role in treating or preventing the impairment of cognitive function, dementia or Alzheimer's?

www.attract.wales.nhs.uk/question_answers.cfm?question_id=268

Is there any evidence that laser treatment for myopia works, if so, who should be referred and are there any side effects?

www.attract.wales.nhs.uk/question_answers.cfm?question_id=257

whether such questions arise from practice or when making policy.

DARE can be used to

- Answer clinical practice questions. Several examples of how DARE has been used in this way can be found in the archives of ATTRACT (<http://www.attract.wales.nhs.uk/>). ATTRACT provides rapid, evidence-based answers to queries from clinicians who want to use the evidence base to inform the care of their patients, but do not have the time to search themselves.⁸ DARE is one of the resources used by the ATTRACT staff. Examples of questions which have been answered using DARE are shown in Box 2, together with the web addresses for the answers given by the ATTRACT team. DARE can also be used by individual clinicians or information staff to answer clinical practice questions.
- Inform clinical practice guidelines. DARE is used by organisations compiling guidelines, for example the Scottish Intercollegiate Guidelines Network (SIGN) (<http://www.sign.ac.uk/>).⁹
- Inform local policies and protocols. York Health Services NHS Trust searched DARE to identify the latest research evidence for stroke services.¹⁰ This evidence underpinned the review and redesign of stroke services within the Trust.

Figures for the overall use of DARE are very difficult to obtain, as the database can be accessed by a variety of different routes. However the average number of hits on the CRD databases via the Internet exceed 250,000 every month.

DARE and the Cochrane Library

The Cochrane Library is an electronic publication which consists of a collection of evidence-based medicine databases, including the Cochrane Database of Systematic Reviews (CDSR) – systematic reviews prepared by the Cochrane Collaboration which are regularly updated. The Cochrane Library is published on a quarterly basis.

DARE is included on the Cochrane Library and complements the CDSR by quality-assessing and abstracting reviews which have not been carried out by the Cochrane Collaboration. When searching the Cochrane Library, records from DARE will automatically be included in the search results. The Internet version of the DARE database contains author abstracts of Cochrane reviews and references for protocols (i.e. reviews in preparation). There are currently over 2600 of these records on the database.

Box 3

Accessing DARE

DARE can be searched via a number of different routes:

- **free of charge from CRD's website**
<http://nhscrd.york.ac.uk/welcome.htm>
- **as part of the Cochrane Library**
The Cochrane Library is available via the National electronic Library for Health (access is free to UK users at www.nelh.nhs.uk), as a CD ROM, or via internet subscription (details at <http://www.cochrane.org>).
- **by subscription using the Ovid product Evidence-Based Medicine Reviews**
<http://www.ovid.com>. This service packages Cochrane Reviews and DARE with MEDLINE.
- **TRIP (Turning Research into Practice) database**
<http://www.tripdatabase.com>
This is a free internet search service that covers a wide range of UK and US clinical effectiveness resources and evidence-based guidelines.

References

1. Clarke M, Alderson P & Chalmers I. Discussion sections in reports of controlled trials published in general medical journals. *JAMA* 2002; 287: 2799-2801.
2. NHS Centre for Reviews and Dissemination. Undertaking systematic reviews of research on effectiveness: CRD's guidance for those carrying out or commissioning reviews. York: University of York, NHS Centre for Reviews and Dissemination; 2001. CRD Report Number 4 (2nd edition).
3. Mulrow CD. Systematic Reviews: Rationale for systematic reviews. *BMJ* 1994; 309: 597-99.
4. Boynton J, Glanville J, McDaid D, Lefebvre C. Identifying systematic reviews in MEDLINE: developing an objective approach to search strategy design. *Journal of Information Science* 1998;24:137-157.
5. Petticrew M, Song F, Wilson P, Wright K. Quality-assessed reviews of health care interventions and the database of abstracts of reviews of effectiveness (DARE). *International Journal of Technology Assessment in Health Care* 1999; 15: 671-678.
6. A meta-analytic review of the effect of exercise on smoking cessation. [Abstract 983857] Database of Abstracts of Reviews of Effects, available at <http://nhscrd.york.ac.uk/welcome.htm> [2002, 7th November.]. Abstract of: A meta-analytic review of the effect of exercise on smoking cessation. Nishi N, Jenicek M, Tataru K. *Journal of Epidemiology* 1998; 8(2): 79-84.
7. Sedation in the intensive care unit: a systematic review. [Abstract 20008202] Database of Abstracts of Reviews of Effects, available at <http://nhscrd.york.ac.uk/welcome.htm> [2002, 25th November.]. Abstract of: Sedation in the intensive care unit: a systematic review. Ostermann ME, Keenan SD, Seiferling RA, Sibbald WJ. *JAMA* 2000; 283:1451-1459.
8. About ATTRACT available at <http://www.attract.wales.nhs.uk/about/one.htm> accessed 13th August 2002.
9. Appraising the quality of clinical guidelines. The SIGN guide to the AGREE guideline appraisal instrument. Available at <http://www.sign.ac.uk/methodology/agreeguide/agree/notes6.html> accessed 31st October 2002.
10. York Health Services NHS Trust. The Management of Stroke *CASE Reports* 2000; 2(1).

Acknowledgements

This bulletin was written and produced by staff at the NHS Centre for Reviews and Dissemination, University of York. *Effectiveness Matters* acknowledges the following who commented on the text:

- Jon Brassey, TRIP Database
- Peter Clappison, Department of Health
- Mike Clarke, UK Cochrane Centre
- Caroline Keir, West Yorkshire Chief Executives' Forum
- Dee Kyle, Bradford South & West Primary Care Trust
- Carol Lefebvre, UK Cochrane Centre
- Ian Watt, University of York
- Alison Weightman, Health Evidence Bulletins Wales

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.

THE UNIVERSITY *of York*

NHS CENTRE FOR
REVIEWS AND DISSEMINATION

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