

Finding Evidence to Support Clinical Decision Making

By Ruth M Sladek, updated August 2006

Using the 4S hierarchical structure suggested by Haynes⁽¹⁾, searching should begin at the highest level resource available for a clinical problem.

SYSTEMS

'Systems' refers to computerised decision support systems, but these are still rather hypothetical. Haynes suggests that a perfect electronic clinical information system would automatically integrate and link all important and relevant research evidence with electronic medical records. Some tools which at least *potentially* could contribute to such systems are:

- *Clinical Evidence*
- *UpToDate*
- *ACP Medicine*

SYNOPSISSES

The most digestible parcels of evidence for a busy clinician, are what Haynes refers to as '*synopses*'. He suggests these provide enough information to support a clinical decision. Over the last few years, new journals that specifically do this have been developed. Synopses of recent research, both primary research and review articles, are published in the form of 1-page structured abstracts/clinical commentaries.

Essentially the editorial group for these journals sifts through a large number of journals and identifies original research articles and review articles. They then select only those studies (including reviews) which meet sound methodological criteria, ie those most likely to be true and useful. They summarise the best articles by creating a structured abstract describing the objectives, methods, results and conclusions of the original research, and then add a brief expert commentary.

Examples are:

- *Evidence-Based Ophthalmology*
- *Evidence Based Medicine*
- *Evidence Based Mental Health*
- *Evidence-Based Nursing etc*

SYNTHESES

If you need more detail, or you can't access a synopsis, then the next source you might look for would attempt to synthesise what is currently known about a topic or clinical question. This could include:

- Systematic Reviews
- Evidence Based Guidelines

These provide a systematic approach to synthesising the evidence on particular subjects, and offer you some assurance as to the quality of findings. They typically, amongst other things

- Use an *explicit methodology*, ie are replicable by others
- Are based on *exhaustive searches* for primary research, both published and unpublished
- They *appraise the articles* which they find and only include those which meet sound methodological criteria

STUDIES

*If you still haven't found anything, then you might look for individual **studies**. For example, RCTs, Cohort Studies, Case-Control studies etc.*

OTHER

If you still haven't found enough information, then you could identify likely websites through professional associations, or general web search engines such as Google (www.google.com) or scirus (www.scirus.com). Google, for example, allows you to restrict domain names, so you specify only sites with .edu. as the domain, thereby excluding commercial sites.

SUMMARY

Using the 4S hierarchical approach:

1. Systems eg, Clinical Evidence
2. Synopses eg, Summary journals such as Evidence Based Medicine
3. Syntheses eg, Systematic Reviews, Evidence Based Guidelines
4. Studies eg, RCTs, Cohort, Case Control...

⁽¹⁾ Haynes B. Editorial. ACP Journal Club. 2001 Vol 134(2)