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Special Musculoskeletal issue

Vision on Pain; assessment of pain in patients with impaired cognition

Self Management of low back pain and osteoarthritis

Tissue repair in the older person



Searching for the evidence

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This article forms part 2 of a series of articles that will be published in Agility. You may want to re-read 'Using evidence in clinical practice: an introduction' that was in the Spring/Summer 2013 edition.

So, you have your PICO or PECO and the next thing we need to look at is how to find the evidence to answer your clinical question. This can be a bit daunting but hopefully in this piece we'll give you a few starting points to help you. There are 4 steps:

1. What search terms should I use
2. Where should I look
3. How to search
4. How to obtain the papers

WHAT SEARCH TERMS SHOULD I USE

Use your PICO to help you select keywords and phrases to use in your search. In the example below we demonstrate this using the question from the previous article in this series: what type of exercise is effective at reducing falls amongst older people living in the community.

P – community dwelling older people

I – exercise

C – any comparator

O - falls

Table 1 is a good way to refine your search as you may find that you're only interested in older women

or a specific type of exercise. Writing down all the different terms associated with each element will then help you decide which terms you will use; you may decide to use only one from each column or you may decide to use them all. Remember that you don't have to have a search term for all of the elements, in our example you don't need anything for comparison.

Now you've got some search terms.

WHERE SHOULD I LOOK

Where you decide to look will depend on what type of evidence you want to find. See Table 2 for a selection of FREE resources on the web which you may like to try.

If you are a clinician working in the NHS then you can have an NHS Athens password, have a look at this site or contact your local NHS Library for more details. (<https://register.athensams.net/nhs/nhseng/>)

If you have this, then that opens up a whole other world of places to search, See Table 3.

Most of these contain primary research but they will also give you access to some of the more report type literature and sometimes conference proceedings.

HOW TO SEARCH

Here are some general hints for searching. Most databases have a simple search which you can use. Remember though that each database has its own way of searching so always check the first page of your results to see if you're getting the kind of references you want.

Search term table: an example

Population 1	Population 2	Intervention/Exposure	Comparison	Outcomes
Older people	Community	Exercise		Fall
Elderly people	Home	Physiotherapy		Falling
Older men		Rehabilitation		
Older women		Physical activity		

Table 1

AND

Type of evidence	Resource name	URL
News	NHS Choices	www.nhs.uk/News
Clinical guidelines	TRIP	www.tripdatabase.com
	NHS Evidence	www.evidence.nhs.uk
	NICE Clinical Guidelines	www.nice.org.uk
	PEDro	http://www.pedro.org.au/
Primary research (eg published results of randomised controlled trials)	PubMed	www.ncbi.nlm.nih.gov/pubmed
	Google scholar	scholar.google.co.uk
	PEDro	http://www.pedro.org.au/
Trial Registries	Clinical trials	www.clinicaltrials.gov
	UK Clinical Research Network	public.ukcrn.org.uk
Systematic reviews	TRIP	www.tripdatabase.com
	CDSR	www.thecochranelibrary.com
	DARE (synopsis of reviews)	www.thecochranelibrary.com
	PEDro	http://www.pedro.org.au/

Table 2

AMED (Allied and Complimentary Medicine)	BNI (British Nursing Index)	CINAHL (Cumulative Index to Nursing and Allied Health Literature)	EMBASE
Health Business Elite	HMIC (Health Management Information Consortium)	Medline	PsycINFO

Table 3

1. Start with general terms. This will allow you to see straight away the amount of evidence out there and will reduce the chance of you missing crucial information in the first instance. In our example you might start searching just 'fall' and 'older' and if you're looking for a systematic review you may well find it straight away. Several resources categorise their results by type of evidence, so you can select to see just guidelines or systematic reviews. If you're looking for very specific information e.g. on how effective walking interventions can be for preventing falls in older women living at home you can target your search more as follows:

(fall or falling) AND (older or elderly) AND women AND walking AND community.

2. You don't need to search everywhere, search one or two databases that you know cover the type of evidence you are looking for.
3. You will probably have to use searching syntax (also called Boolean searching), this just means connecting words to join your terms together. Generally this will be OR or AND and your search term table will help you understand what to do.

There are other forms of syntax that you might find useful, for example, truncation, which is often an asterisk. So if you search for fall* you will also retrieve falls and falling. Remember though, that each database is different and the symbol for truncation may differ.

HOW TO OBTAIN THE PAPERS

Here are a few ways to find the papers

1. If you're affiliated to a Library, either NHS or University, you will be able to access their collection either electronically or in paper.
2. Many articles are now freely available via open access journals. Some databases will connect you directly to the full text if it is freely available. Otherwise, try putting the title into Google; this sometimes works!
3. Inter-Library Loan. You will do this through your Library, so look at their webpages or contact them directly for help. There can sometimes be a charge for this service.
4. Visit another Library that you know has the article. Most University Library catalogues are free to search via their websites.

5. It's becoming increasingly popular for Universities to have a catalogue of all papers and PhDs published from their institutions so you could try browsing around the author's University to see if you can find it.
6. While you're there you might find the author has a webpage with a link to the full text.
7. If all else fails you could try contacting the author directly. Usually there are contact details with the paper.

FURTHER INFORMATION

Always try your Library first, either their webpages which will have a wealth of useful information, or by direct contact. They will be able to offer invaluable help, advice and training.

For help on a specific database always look at their help pages as many offer great video tutorials that are often only a couple of minutes long.

Ask colleagues either through your existing network or on one of the online discussion groups, someone out there is bound to be able to help you.

Good luck and try to do the groundwork of thinking about your search terms and what kind of evidence you're looking for before you set out. Oh, and don't be put off by the terminology.

So you have found an article that you feel helps you answer your clinical question. In the next instalment we'll be looking at critical appraisal of a randomised controlled trial, including some tips on understanding statistics.

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