

P

Patient/Population

This is the “Who”. For this you need to think of age, sex, ethnic group or other defining characteristics of the patient and the population.

OR

OR

I

Intervention

This is also sometimes known as exposure, and makes up the “What”. This is what is happening to the patient or population, so it could be a drug or a therapy, a screening questionnaire or a health improvement programme.

OR

OR

C

Comparison/ Control

With what is the intervention (or indeed population) being compared? This could be a control group.

OR

OR

O

Outcome

What outcome do you expect to see? For example, you may be interested in knowing whether an intervention has a health benefit, or whether an exposure results in mortality.

OR

OR

AND

AND

AND

Preparing the ground

Searching is not an exact science. It is a maze you must ease your way through. You rarely get just what you are looking for first time around. You may go down blind alleys, or be disappointed that a promising thesaurus term yields disappointingly few results. You will need to find your way in what works and what doesn't. Be prepared to review your results, try different approaches, adapt terms, find newer terms. Go back to where you started with the newer knowledge you have gained. Go back and forth collecting and refining search terms as you go.

1. Google your question by typing a brief outline of it in the search bar. Someone is bound to have wondered the same thing. What papers has it retrieved? Are there blogs/websites discussing it? What are the arguments surrounding your topic?
2. Wikipedia your question. Analyse the Wikipedia entry – what vocabulary is in the entry, note down any synonyms for the disease, variations of spellings, what groups of people are affected, what part of the body is affected, what the symptoms look like. Check the references at the bottom and print some of them out. Look at the vocabulary used in these papers to give you further ideas for searching.
3. Draft out your search question and break it down into simple ideas. You can use PICO for this.
4. Choose a database like CINAHL or EMBASE for a pilot scoping search. What thesaurus terms yield good results and which ones are duds? Are you over-relying on narrow/obscure ones or will broader terms do? Try some free text terms and truncate sensibly where possible. Are there acronyms to describe what you are looking for? Try various ways of putting these in.
5. Your pilot search may be untidy. Ideas may be scattered all over the place. Tidy your search by combining similar concepts into “sets” using OR
6. When you have some results, download and save. Any “golden” papers among them? Open up the bibliographic record for these papers. What thesaurus terms have they been allocated in CINAHL or MEDLINE? What vocabulary is used in the articles? Eg bowel ischaemia or ischaemic bowel

7. Get a feel for the topic through these papers. Why is more research needed? What problems did the authors come up against? Follow up the references at the bottom and try some author searches to follow the work of these authors. Identify your topic and keep making notes of better vocabulary terms as you go.

When you have firmed up and come up with a better search strategy, start a new search all over again with what you now know.

Got some great results 2nd time around? Now re-run your search terms in other databases. Free text rows will automatically re-run. However, you may need to search for the preferred thesaurus terms in alternative databases.

Mopping up strays

1. Check some specialist databases like Cochrane, PsycInfo, Trip Database.
2. Is anyone talking about this topic on social media?

Not all papers have been allocated thesaurus headings. You may have some surprise finds on the internet!

The best searches are a combination of thesaurus terms and free text.

Look for a good review, which has the search strategy in it. How does it compare to yours?

Always save your search. Weeks later, you may discover a vital clue and need to adapt your search to include this.

Review, refine, adapt, re-run

Getting the correct balance in your search is a fine art.

Adding too many or incorrect terms makes the search too heavy.

Too few terms will miss references.

Combine sensitivity with specificity: a sensitive search will produce more results, a specific search fewer results.

A well-balanced search has elements of both.