Translating search strategies

If you are doing a systematic review, you will need to run the same search in more than one database. It is important to run the same search in all databases.

We use the term "translation" for the process of modifying a search so that it works in another database.

If you have a search that works in Ovid Medline, what do you need to change to make it work in another database like PsycINFO or Embase? Those other databases have different features or functionality.

There are three areas where translation is necessary, once you have finalised your strategy:

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Search syntax

Phrase searching

Ovid will search the keyword heart disease as the phrase heart disease.

In the NHS databases, Cochrane, Web of Science and PsycINFO via Ebsco, you must indicate if your keyword is a phrase, by putting the phrase in double quotes (speech marks):

"heart disease"

Proximity operators

A proximity operator finds one keyword next to another, or one within a specified number of words of the other.

In Ovid Medline:

heart adj disease

finds the word heart next to the word disease, in that order. (This is the same as searching for the phrase, of course)

heart adj2 disease

finds the word heart within two words of the word disease, but in either order, so will find heart disease, disease of the heart.

You can use proximity operators with the truncation symbol (see below), so:

heart adj3 disease*

finds heart disease, disease of the heart, diseases of the heart, diseases of the human heart.
Proximity operators in other databases are:

Ovid Embase and NHS databases - the same as Ovid Medline

PsycINFO via Ebsco - Nn finds one word within n words of the other, in either order. Wn finds one word within n words of the other, in that order.

Cochrane - NEAR/n finds one word within n words of the other, in either order. NEXT finds two words adjacent to each other in that order (you cannot use truncation and phrase searching together in Cochrane, so this is an alternative).

Web of Science - NEAR/n works the same as in Cochrane.

Truncation and wildcards

Using a truncation symbol will find words that begin with that string of letters, so disease* finds disease, diseases, diseased...

* is the truncation symbol in many databases but check the help files. Also check the help files to see how many characters the * can stand for.

Field searching

In Ovid you will see:

Heart.mp.

.mp. stands for the (article) title, abstract and some other fields and Ovid searches for the word heart in any of these fields. .mp. is the default for free text searching in Ovid. To search just in titles and abstracts in Ovid, you can use .ti,ab.:

Heart.ti,ab.

Ovid Embase also uses .mp. but in other databases there may be no exact equivalent of .mp. In other databases:

NHS databases: .ti,ab (note no second full stop) searches in titles and abstracts. There is no equivalent of .mp.

PsycInfo via Ebsco - you can use the drop down box to select title, or abstract. Not making a choice searches all fields, and this is the closest equivalent to .mp.

Web of Science - select Topic in the drop down box. This is the closest match to Ovid's .mp.

Cochrane Library - (heart):ti,ab You must put the search term(s) in brackets. Note the colon and that there is no final full stop.

Subject headings

Medline has subject headings, called MeSH, and you should use these in your search. These subject headings are listed in a “thesaurus”. In your search history they have a final /, for example Diabetes Mellitus, Type 2/. Exp before the term means the term is exploded.

Some databases have their own thesaurus, so the subject headings may not be the same as in those in Medline. Some databases do not have a thesaurus at all.

You need to take this into account when modifying your search.
Cochrane uses MeSH. Use the MeSH terms you used in Medline. In the Search Manager, you can enter them like this:

[mh heart]

This will explode the term heart. If you do not want to explode it, use ^, like this:

[mh ^heart].

If the MeSH term is a phrase, put it in double quotes:

[mh "diabetes mellitus"]

Web of Science has no thesaurus at all. In a database without a thesaurus, I would ensure I have searched for the MeSH term as free text. You have probably done this anyway.

PsycINFO, Cinahl and Embase have their own thesauri. Identify the term that is used for the concept you are searching, by entering the MeSH term or another keyword and exploring the thesaurus.

If you have used explode in Medline, a good rule is to use it in other databases.

PsycInfo has more detailed terms for psychological concepts, and Embase for drugs and drug administration, so there may be thesaurus terms available that Medline does not have.

Any thesaurus may have different terms from Medline, for example, the subject heading in Medline for type 2 diabetes is Diabetes Mellitus, Type 2/, and in Embase it is non insulin dependent diabetes mellitus/.

Translating a Medline strategy is easier if you have MeSH and freetext on separate lines of the Medline strategy.

**Limits**

You may have used limits in Medline to find particular publication types, or work relating to a particular age group.

There are issues with limits and you might have used search filters instead. If you have used a search filter, look for a version for the database you are translating into. Ask us for advice on search filters if you are not familiar with them.

If you have used limits, check if those same limits are available in the database you are translating into.

Here are some things to be aware of:

Most databases have date and language limits.

There are detailed publication type limits in Medline, Embase, Cinahl and PsycINFO. The definition of, say, "randomised controlled trial" should be the same across the three databases but you might be wise to check. Some of the publication types in the other databases will have no Medline equivalent, but for those that do, check that their definitions match Medline’s.

Web of Science has no publication type limits beyond “journal article” and “review”. You would need to screen your Web of Science search results for references that match your chosen publication type or devise a search filter.

The Cochrane Database of Systematic Reviews is of course all systematic reviews, so no limit needed. The Trials database in Cochrane is all clinical trials (randomised and otherwise) so again no limit is needed.

Embase, Cinahl and PsycINFO have age group limits, but they might not be the same as Medline’s (or each other’s).

Web of Science and Cochrane have no age group limits.
For detailed help, consult the help files of the database itself. If you have any questions or need any help please contact us via librarians@le.ac.uk.

Based on a blogpost by Keith Nockels at http://browsing.blogspot.co.uk/2017/08/translating-search-strategies-updated.html

Last updated 29th August 2017