Royal Papworth Hospital
Library Services

A step-by-step guide to conducting an advanced literature search using a healthcare database
Before you log in, it is important to think about the different aspects of your topic.

**TIP:** Databases do not work well with sentences. You will need to identify and search separately for the **keywords/phrases** in your search topic.

Having identified your keywords/phrases, consider synonyms, US spellings or alternative terminology e.g. medical vs general terms.

Example topic:  

*Is the flu vaccine effective in reducing sick leave?*

<table>
<thead>
<tr>
<th><strong>Keywords/phrases</strong></th>
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<tbody>
<tr>
<td>Flu vaccine</td>
<td>Sick leave</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Synonyms /Alternative terminology</strong></th>
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<tbody>
<tr>
<td>Influenza vaccine</td>
<td>Time off work</td>
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<tr>
<td>Influenza immunisation</td>
<td>Absent</td>
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<tr>
<td>Influenza immunization</td>
<td>Absenteeism</td>
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</tbody>
</table>

After planning your search, access the databases at:  

[http://hdas.nice.org.uk](http://hdas.nice.org.uk)
Select your database

Log in with your NHS Athens username and password. You are now in the NICE Healthcare Databases Advanced Search.

Select the relevant database for your topic.

Use the thesaurus to search your keywords

Each database uses controlled subject headings to ‘tag’ articles with their relevant subjects. These headings can help you locate articles that use different synonyms for your keywords/phrases.

Type your first keyword/phrase into the search box and click on ‘Thesaurus’.

This will display the best matches for your term. Select the most relevant option to see the thesaurus features in more detail.
Using the thesaurus

Your selected term will appear beneath its broader term (shown in blue). At the bottom of the table, you can see other variants of this term that the thesaurus heading is used for.

If you are unsure about whether a thesaurus heading is relevant to your search, click on ‘Scope’ for a description of the heading.

There are three options next to each heading. Use ‘Select’ to locate any articles that are tagged with this heading, or ‘Major’ to locate only articles which have this heading as a primary focus. ‘Explode’ is covered on the next page.

For an even more specific search, click on ‘Subheadings’ to see different aspects of the topic, which can be individually selected.
Selecting ‘**Explode**’ will locate articles tagged with the selected heading and any narrower headings (where these exist). In the previous example, there are no narrower terms available for the heading **Influenza Vaccines**, so selecting ‘**Explode**’ would return the same results as ‘**Select**’.

However, clicking on the broader heading **Viral Vaccines** shows that this heading has 23 narrower terms. Exploding this heading would include the original broad heading plus all of these options.

Alternatively, relevant headings can be individually selected using ‘**Select**’.

<table>
<thead>
<tr>
<th>Select</th>
<th>Explode</th>
<th>Major</th>
<th>Term</th>
<th>Broad</th>
<th>Narrow</th>
<th>Sibling</th>
<th>Used For</th>
<th>Related</th>
<th>Subheadings</th>
<th>Notes</th>
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<td>Viral Vaccines</td>
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<td>Subheadings</td>
<td>Scope</td>
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<td>Adenovirus Vaccines</td>
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<td>AIDS Vaccines</td>
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<td>Ebola Vaccines</td>
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<td>Subheadings</td>
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<td>Herpesvirus Vaccines</td>
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<td>Subheadings</td>
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<td>Influenza Vaccines</td>
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<td>Subheadings</td>
<td>Scope</td>
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</table>

After choosing your desired option(s), click on ‘**Search Now**’ and then close the thesaurus (top of page).
Free text searching

You can also enter your own search terms, which is called free text searching. This ensures that your search is comprehensive, particularly as recent articles added to the database may not yet have been tagged with thesaurus headings.

Things to consider:

**Phrases:** Put quotation marks (" ") around any phrases. This will ensure that the database searches for the exact pattern of words e.g. “influenza vaccine”.

**Wildcards:** To search for different word endings you can use a wildcard (*). Consider carefully at which point to use the wildcard. For example, searching for vaccine* would locate articles containing vaccines, but using vaccin* would also cover vaccination, vaccinations and vaccinated.

**Acronyms:** Acronyms are common within healthcare so it can be useful to search for these separately. However, be aware that acronyms may have multiple meanings, so the search could return results that are irrelevant to your topic. For example, AIDS could signify either the condition or equipment like walking aids.

Search each of your keywords/phrases individually: type them into the search box, make sure ‘Title and Abstract’ are selected and click on ‘Search’.
The search structure

Having searched separately for the keywords/phrases relating to the first aspect of your topic, you will now need to combine these search lines to produce a single set of results for this part of the search.

Tick the boxes next to each line, select OR and click ‘Combine’.

This combined line collates the results of the individual searches and removes any repeated results.

You should now follow the same search process with the other aspects of your search topic, using headings and free text.

In this example, the next aspect of the search is sick leave. Search for your keywords/phrases individually and then combine with OR as above. The next step is to combine the different aspects of your topic.
Use **AND** to combine the different aspects (shown in green) of your topic:

- Medline: "INFLUENZA VACCINES"
- Medline: ("flu vaccin**",).ti,ab
- Medline: ("Influenza vaccin**",).ti,ab
- Medline: ("Influenza immunisation**",).ti,ab
- Medline: ("Influenza immunization**",).ti,ab
- Medline: (1 OR 2 OR 3 OR 4 OR 5)
- Medline: "SICK LEAVE"/
- Medline: ("sick leave"),.ti,ab
- Medline: ("time off work"),.ti,ab
- Medline: (absent*),.ti,ab
- Medline: (7 OR 8 OR 9 OR 10)
- Medline: (6 AND 11)

**TIP:** We search with **AND** to combine different parts of the search. We only use **OR** to combine keywords/phrases that are similar. This produces a final search line combining the different parts of the search topic.
Apply limits to your search

You may also wish to ‘Limit’ the results, such as by date range, language etc.

In the search box, enter the line number (in this example 12) to which you want to apply limits and tick the ‘Limits’ box.

This will show the limits available in your chosen database. Use the headings to select the required limits and click on ‘Search’.

Here, the search has been limited by date range (2011-2016) and language (English).
Viewing, saving and exporting your results

This produces a final line in your search strategy, with the limits applied to your search.

Once you are happy with your search, you should save your search strategy. This allows you to revisit your search at a later date, and makes it easier to save your results.

Give your search a name in the box above the search history and click on ‘Save Strategy’.

Scroll down the page to view your results, or click on ‘View Results’ in your final search line if they have not automatically appeared. You can change how the results are sorted, how many to view per page and show/hide abstracts.
As well as saving the search strategy, you can also save selected results.

As you review your results, tick those you wish to save and click on ‘Add to Saved’ at the bottom of each page before moving to the next page. If you move to the next page without saving you will lose your previous selections.

To export your results, scroll up to your search history and select ‘Export Options’.

This will display the format options next to each search line and display options at the bottom (e.g. short to show citation only, medium to include abstracts). Select your desired display options first and then click on the preferred output format for your ‘Saved Results’ line.

**TIP:** Not all articles will be immediately available to you. Contact the library to request any articles you require that do not have a full text option or if you have any problems accessing them. We can usually obtain articles for you through our interlibrary loan service, which is free of charge.
Library Services
Enquiry Desk

Usually staffed Monday - Friday: 9:00 – 16:00

Contact

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Royal Papworth Hospital NHS Foundation Trust
Papword Road
Cambridge Biomedical Campus
CB2 0AY
Tel: 01223 639689

papworth.library@nhs.net

https://royalpapworth.nhs.uk/research-and-development/library-services

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