

Basildon Healthcare Library Education Centre

**This leaflet is a step-by-step guide to
conducting an advanced literature
search using a healthcare database**



Search the Databases

Select All

AMED

BNI

CINAHL

EMBASE

HBE

HMIC

Medline

PsycINFO

PubMed

Identify your key terms

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?

	Keywords/phrases	
	Flu vaccine	Sick leave
Synonyms /Alternative terminology	Influenza vaccine	Time off work
	Influenza immunisation	Absent
	Influenza immunization	Absenteeism

After planning your search, access the databases at:

www.btuheks.nhs.uk

Select **Login to Healthcare Databases** from the dropdown menu under **NHS Athens**.

Home Services >	NHS Athens >	Books >	Journals >	Reso
Close Menu	Login to NHS OpenAthens Resources			
Home > Journals > A	Login to Healthcare Databases			
	Registering for NHS OpenAthens			
	Forgotten Your NHS OpenAthens Password			
	What is NHS OpenAthens			
	MyAthens			
	Change Athens Organisation			

Select your database

Choose **Log in for all databases** and 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.

Buttons for selecting databases:

- Select All
- AMED
- BNI
- CINAHL
- EMBASE
- HBE
- HMIC
- Medline
- PsycINFO
- PubMed

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'**.

Search box: flu vaccine

Buttons: Search, Thesaurus

Thesaurus results:

- Flu Vaccines
- Haemophilus influenzae Vaccines
- Influenza Vaccine
- Influenza Vaccines

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

Thesaurus	Select	Explode	Major	Term	Broad	Narrow	Sibling	Used For	Related	Subheadings	Notes
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Viral Vaccines						Subheadings	Scope
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Influenza Vaccines	1			10		Subheadings	Scope
				Used For							
				Afluria							
				CAIV-T vaccine							
				Flu Vaccines							

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.

Thesaurus	Select	Explode	Major	Term	Broad	Narrow	Sibling	Used For	Related	Subheadings	Notes
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Viral Vaccines						Subheadings	Scope
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Influenza Vaccines	1			10		Subheadings	Scope
				Used For							
				Afluria							
				CAIV-T vaccine							
				Flu Vaccines							

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.

Thesaurus	Select	Explode	Major	Term	Broad	Narrow	Sibling	Used For	Related	Subheadings	Notes
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Viral Vaccines						Subheadings	Scope
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Influenza Vaccines	1			10		28	Scope
				ad administration & dosage							
				ae adverse effects							
				ag agonists							
				ai antagonists & inhibitors							
				an analysis							
				bi biosynthesis							
				bl blood							
				cf cerebrospinal fluid							
				ch chemistry							
				cl classification							
				cs chemical synthesis							
				ct contraindications							
				ec economics							
				ge genetics							
				hi history							
				im immunology							
				ip isolation & purification							
				me metabolism							
				pd pharmacology							
				pk pharmacokinetics							
				po poisoning							
				re radiation effects							
				sd supply & distribution							
				se secretion							
				st standards							
				to toxicity							
				tu therapeutic use							
				ur urine							

The Thesaurus tree

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'**.

Select	Explode	Major	Term	Broad	Narrow	Sibling	Used For	Related	Subheadings	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vaccines						Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Viral Vaccines	1	23				Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adenovirus Vaccines						Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AIDS Vaccines						Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cytomegalovirus Vaccines						Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dengue Vaccines						Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ebola Vaccines						Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Herpesvirus Vaccines						Subheadings	Scope
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Influenza Vaccines						Subheadings	Scope

After choosing your desired option(s), click on **'Search Now'** and then close the thesaurus (top of page).

Clear Selection ✖ Close Thesaurus ⊙ Or ⊙ And Search Now Search as individual Queries

"INFLUENZA VACCINES"

Thesaurus	Select	Explode	Major	Term	Broad	Narrow	Sibling	Used For	Related	Subheadings	Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Viral Vaccines						Subheadings	Scope
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Influenza Vaccines	1			10		Subheadings	Scope

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, as it only adds up to 5 letters. For example, searching for **vaccine*** would locate articles containing **vaccines**, but using **vaccin*** would also cover **vaccination** 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.

	Database(s)	Search Term			
<input type="checkbox"/>	Medline	"INFLUENZA VACCINES"	View Results (18,241)	Edit	
<input type="checkbox"/>	Medline	("flu vaccin*").ti,ab	View Results (930)	Edit	
<input type="checkbox"/>	Medline	("Influenza vaccin*").ti,ab	View Results (13,307)	Edit	
<input type="checkbox"/>	Medline	("influenza immunisation*").ti,ab	View Results (146)	Edit	
<input type="checkbox"/>	Medline	("Influenza immunization*").ti,ab	Viewing (986)	Edit	

All [Rerun Searches](#) [Copy](#) AND OR [Combine](#) [Delete Selected](#) [Export Options](#)

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'**.

	Database(s)	Search Term		
<input checked="" type="checkbox"/>	1	Medline	"INFLUENZA VACCINES/"	View Results (18,241) Edit
<input checked="" type="checkbox"/>	2	Medline	("flu vaccin").ti,ab	View Results (930) Edit
<input checked="" type="checkbox"/>	3	Medline	("influenza vaccin").ti,ab	View Results (13,307) Edit
<input checked="" type="checkbox"/>	4	Medline	("influenza immunisation").ti,ab	View Results (146) Edit
<input checked="" type="checkbox"/>	5	Medline	("influenza immunization").ti,ab	Viewing (986) Edit

All [Rerun Searches](#) [Copy](#) AND OR [Combine](#) [Delete Selected](#) [Export Options](#)

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

	Database(s)	Search Term		
<input type="checkbox"/>	1	Medline	"INFLUENZA VACCINES/"	View Results (18,241) Edit
<input type="checkbox"/>	2	Medline	("flu vaccin").ti,ab	View Results (930) Edit
<input type="checkbox"/>	3	Medline	("influenza vaccin").ti,ab	View Results (13,307) Edit
<input type="checkbox"/>	4	Medline	("influenza immunisation").ti,ab	View Results (146) Edit
<input type="checkbox"/>	5	Medline	("influenza immunization").ti,ab	View Results (986) Edit
<input type="checkbox"/>	6	Medline	(1 OR 2 OR 3 OR 4 OR 5)	Viewing (22,501)

All [Rerun Searches](#) [Copy](#) AND OR [Combine](#) [Delete Selected](#) [Export Options](#)

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.

The search structure continued...

Use **AND** to combine the different aspects (shown in green) of your topic:

	Database(s)	Search Term			
<input type="checkbox"/>	Medline	"INFLUENZA VACCINES"/	View Results (18,241)	Edit	
<input type="checkbox"/>	Medline	("flu vaccin*"),ti,ab	View Results (930)	Edit	
<input type="checkbox"/>	Medline	("influenza vaccin*"),ti,ab	View Results (13,307)	Edit	
<input type="checkbox"/>	Medline	("influenza immunisation*"),ti,ab	View Results (146)	Edit	
<input type="checkbox"/>	Medline	("influenza immunization*"),ti,ab	View Results (986)	Edit	
<input checked="" type="checkbox"/>	Medline	(1 OR 2 OR 3 OR 4 OR 5)	View Results (22,501)		
<input type="checkbox"/>	Medline	"SICK LEAVE"/	View Results (4,450)	Edit	
<input type="checkbox"/>	Medline	("sick leave"),ti,ab	View Results (3,901)	Edit	
<input type="checkbox"/>	Medline	("time off work"),ti,ab	View Results (701)	Edit	
<input type="checkbox"/>	Medline	(absent*),ti,ab	Viewing (133,376)	Edit	
<input checked="" type="checkbox"/>	Medline	(7 OR 8 OR 9 OR 10)	View Results (: Running)		

All
 [Rerun Searches](#)
[Copy](#)
 AND
 OR
 [Combine](#)
[Delete Selected](#)
[Export Options](#)

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.

	Database(s)	Search Term			
<input type="checkbox"/>	Medline	"INFLUENZA VACCINES"/	View Results (18,241)	Edit	
<input type="checkbox"/>	Medline	("flu vaccin*"),ti,ab	View Results (930)	Edit	
<input type="checkbox"/>	Medline	("influenza vaccin*"),ti,ab	View Results (13,307)	Edit	
<input type="checkbox"/>	Medline	("influenza immunisation*"),ti,ab	View Results (146)	Edit	
<input type="checkbox"/>	Medline	("influenza immunization*"),ti,ab	View Results (986)	Edit	
<input type="checkbox"/>	Medline	(1 OR 2 OR 3 OR 4 OR 5)	View Results (22,501)		
<input type="checkbox"/>	Medline	"SICK LEAVE"/	View Results (4,450)	Edit	
<input type="checkbox"/>	Medline	("sick leave"),ti,ab	View Results (3,901)	Edit	
<input type="checkbox"/>	Medline	("time off work"),ti,ab	View Results (701)	Edit	
<input type="checkbox"/>	Medline	(absent*),ti,ab	View Results (133,376)	Edit	
<input type="checkbox"/>	Medline	(7 OR 8 OR 9 OR 10)	View Results (140,095)		
<input type="checkbox"/>	Medline	(6 AND 11)	Viewing (261)		

Apply limits to your search

You may also wish to 'Limit' the results, such as by date range, language etc. This should be your final step as lines with limits cannot be combined.

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

The screenshot shows a search interface with a green header bar. Below the header, there is a search bar containing '12' and a 'Search' button. To the right of the search bar is a 'Limits' checkbox, which is highlighted with a red star. Below the search bar, there are several database selection buttons: AMED, BNI, CINAHL, EMBASE, HBE, HMIC, PubMed, and Medline (which is highlighted in green). Below the database selection, there is a 'Fields' section with a message: 'Fields are not available for existing search rows'. Below the 'Fields' section, there is a 'Limits' section with a 'Limits' checkbox, which is also highlighted with a red star. The 'Limits' section has several dropdown menus: Article Type, Dates, Gender, Age Group, Language, and Other. The 'Dates' and 'Language' dropdowns are highlighted in green.

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).

The screenshot shows the 'Limits' section of the search interface. The 'Limits' checkbox is checked. Below it, there are several dropdown menus: Article Type, Dates, Gender, Age Group, Language, and Other. The 'Dates' and 'Language' dropdowns are highlighted in green. The 'Dates' dropdown is set to '2011' to '2016'. The 'Language' dropdown is set to 'English'. Below the dropdowns, there is a 'Publication Date' section with 'From' and 'To' fields. Below that, there is a 'Language' section with several buttons: Afrikaans, Albanian, Aleut, Arabic, Armenian, Azerbaijani, Basque, Belarusian, Bemba (Zambia), Bengali, Bosnian, Bulgarian, Catalan, Cherokee, Chinese, Croatian, Czech, Danish, Dutch, English (highlighted in green), Esperanto, Estonian, Filipino, Finnish, French, and Galician.

Viewing, saving and exporting your results

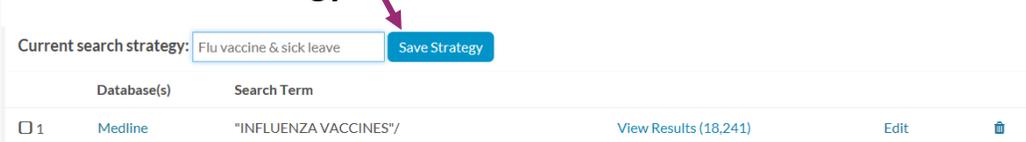
This produces a final line in your search strategy, with the limits applied to your search.



A screenshot of a search strategy interface. It shows two lines of search strategy. Line 12 is 'Medline (6 AND 11)' with a 'View Results (261)' link. Line 13 is 'Medline 12 [DT 2011-2016] [Languages English]' with a 'Viewing (73)' link. Below the lines are buttons for 'All', 'Rerun Searches', 'Copy', 'AND', 'OR', 'Combine', 'Delete Selected', and 'Export Options'. A pink arrow points from the text above to the search strategy line 12.

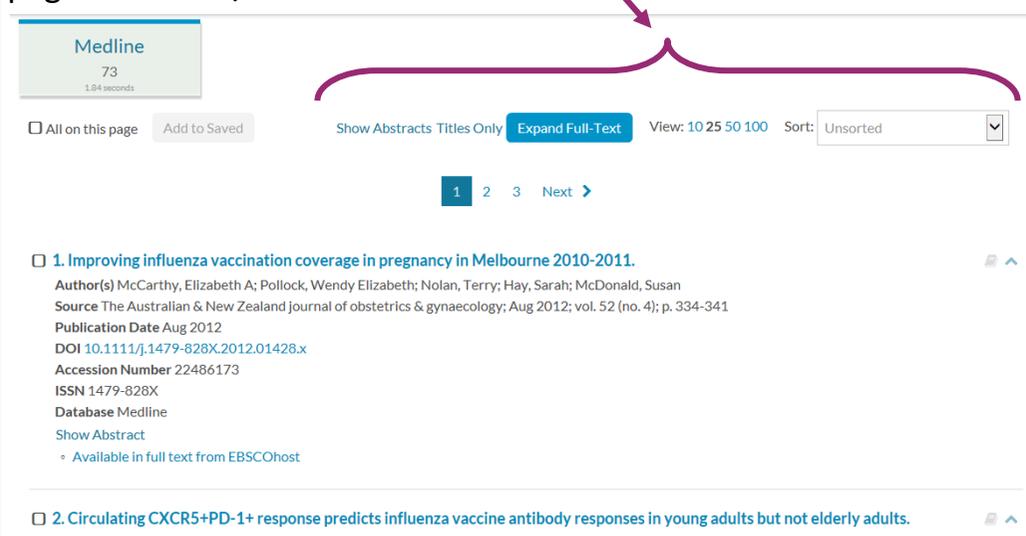
Once you are happy with your search, you should save your search strategy. This allows you to revisit your search at a later date, and makes it easier to save your results.

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



A screenshot of the 'Save Strategy' interface. It shows a text input field containing 'Flu vaccine & sick leave' and a blue 'Save Strategy' button. Below this is a table with columns 'Database(s)' and 'Search Term'. The first row shows 'Medline' and '"INFLUENZA VACCINES"/' with a 'View Results (18,241)' link and an 'Edit' link. A pink arrow points from the text above to the 'Save Strategy' button.

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.



A screenshot of search results. At the top, there is a 'Medline' box showing '73' results and '1.84 seconds'. Below this are buttons for 'All on this page', 'Add to Saved', 'Show Abstracts Titles Only', 'Expand Full-Text', 'View: 10 25 50 100', and 'Sort: Unsorted'. A pink arrow points from the text above to the 'Expand Full-Text' button. Below the navigation are page numbers '1 2 3 Next >'. The first result is titled '1. Improving influenza vaccination coverage in pregnancy in Melbourne 2010-2011.' with author 'McCarthy, Elizabeth A; Pollock, Wendy Elizabeth; Nolan, Terry; Hay, Sarah; McDonald, Susan', source 'The Australian & New Zealand Journal of obstetrics & gynaecology; Aug 2012; vol. 52 (no. 4); p. 334-341', and publication date 'Aug 2012'. The second result is partially visible: '2. Circulating CXCR5+PD-1+ response predicts influenza vaccine antibody responses in young adults but not elderly adults.'

As well as saving the search strategy, you can also save selected results.

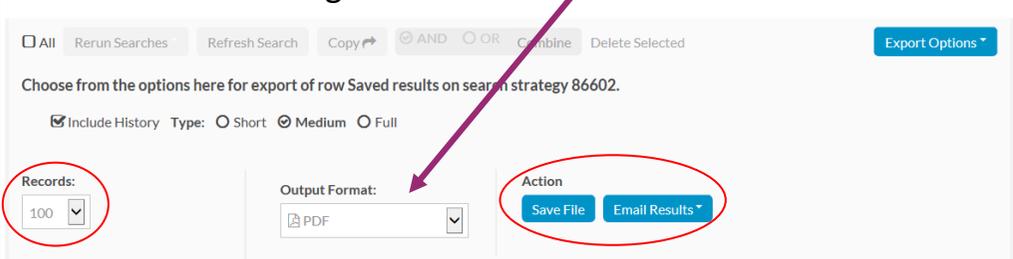
As you review your results, tick those you wish to save and click on **'Add to Saved'** at the bottom of each page before moving to the next page. **If you move to the next page without saving you will lose your previous selections.**



To export your results, select the **'Saved Results'** line in the search history and then **'Export Options'** at the end of the strategy.



This will display the format and display options (e.g. **short** to show citation only, **medium** to include abstracts). Select your desired options and preferred output format (e.g. PDF), ensuring that the number of records is greater than the number of saved results.



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 Opening Hours

Staffed— Monday - Friday: 9am—5pm

Access to staff—24 hours

Staff

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Clinical Librarian: David Stephenson

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