

Using Healthcare Databases

1. What are healthcare databases?

Healthcare databases are used to find reliable, relevant research on a specific topic. They contain references (often with summaries or abstracts) of journal articles, guidelines, dissertations, and book chapters. They cover all aspects of healthcare – from medicine and nursing to buildings and equipment to public health. The NHS currently subscribes to the nine healthcare databases listed below. Articles from journals that the NHS subscribes to are available to download.

You need an **NHS OpenAthens username and password** to access the databases – see the handout entitled **‘NHS OpenAthens’** for more information. If the full-text of a useful article is not available, you can request a copy by filling in an inter-library loan request form (contact the Library team for details).

Allied and Complementary Medicine (AMED) 1985 - present

Covers occupational therapy, physiotherapy, podiatry, speech and language, plus alternative medicine: acupuncture, chiropractic, homeopathy, yoga, hypnosis, etc. Indexes around 600 European journals.

British Nursing Index (BNI) 1992 - present

UK focused database covering all areas of nursing, midwifery and community healthcare. Over 700 English language nursing and midwifery journals are indexed.

Cumulative Index of Nursing & Allied Health (CINAHL) 1981 - present

A US database covering all aspects of nursing and 17 allied health disciplines, including optometry, speech and language pathology, nutrition and audiology. Contains references from over 3,000 journals.

EMBASE 1974 - present

A biomedical and pharmaceutical database with more emphasis on European sources. Indexes 8,500 journals, including about 2,900 not indexed in Medline.

Health Business Elite (HBE) 1922- present

Over 700 journals covering healthcare administration and other non-clinical aspects of health care institution management such as marketing, computer technology, facilities management and HR.

Health Management Information Consortium (HMIC) 1979 – present

Comprises DH Data and King’s Fund databases, covering NHS health services management, policy, and social care. DH Data includes planning; public health; toxicity studies on specific chemicals. King’s Fund focuses on improvements in health and health care, partnership working and workforce development.



MEDLINE 1946 - present

A comprehensive US medical database. Other subjects covered include dentistry, veterinary medicine, and advanced nursing practice. The database covers over 5,500 journals from 70 countries. Note: **PubMed** also searches the MEDLINE database; however limits and thesaurus are not available.

PsycINFO 1806 - present

Subjects covered relate to clinical, social and biological areas of psychology, including addiction, pharmacology, anthropology and law. The database indexes over 2,500 international periodicals.

2. To access the databases:

1. At work, double click  to open Google Chrome and load the intranet home page. Choose **‘Library Service’** under **‘Corporate’**. If the intranet does not load go to: www.sdhl.nhs.uk At home, double click  (or load your normal web browser) and enter the web address: www.sdhl.nhs.uk
2. Click on **‘Search databases’** from the menu on the left.
3. Then select **‘NICE Healthcare Databases’**.
4. Enter your **NHS OpenAthens login** details when prompted.

3. Before you search

You can save yourself time by preparing your search before you use the databases. Do this by considering exactly what you want to know i.e. break your research question into keywords to type into the database and plan exactly how you want to combine the keywords together using Boolean operators (AND and OR). Doing this will help you choose the search restrictions (e.g. to limit by gender, age group etc) that you want to apply when using the databases.

For example: think about the patients/participants (e.g. elderly females with a fractured hip), the intervention (e.g. hip replacement), the outcome (e.g. mobility), the comparison (possibly an alternative treatment).

Think of alternative or similar words or terminology to be incorporated into the search. The databases will only search for the terms you enter into the search box, they will not offer suggestions – you need to give them. If you do not search for alternative terms you could potentially miss a lot of useful information.

- consider synonyms, alternative phrases, e.g. *stroke or cerebrovascular accident*;
- think about different word order e.g. *student nurses or nursing students*;
- differences in UK and US terminology and spelling e.g. *physiotherapy or physical therapy, paediatrics or pediatrics*.
- interchangeable concepts, e.g. *training / education / teaching / learning*.

To combine your search terms you will need to use the Boolean operators **AND** and **OR**.

OR will widen a search to look for all records where **any** of the searched for terms occur. **AND** will narrow a search to only those records with **both** terms present.

For further search tips see the **search techniques section on page 6** and the ‘**Thesaurus mapping in healthcare databases**’ handout.

4. Searching

The **NICE Healthcare Databases Advanced Search (HDAS)** option will allow you to control each step of your search, therefore enabling you to build a detailed search strategy.

Search example: Find some articles which discuss the use of cognitive behaviour therapy in teenagers with depression. Keywords: **CBT and Depression**.

The screenshot shows the NICE Healthcare Databases Advanced Search (HDAS) interface. The 'Databases' section is visible, with a grid of checkboxes for various databases. The 'Medline' checkbox is selected and highlighted in green. A blue arrow points to the 'Medline' checkbox. The 'Fields' section shows 'ti Title' and 'ab Abstract' selected. The 'Limits' section is unchecked. The 'Display' section shows 'Results' selected.

The content within each database will vary. Therefore it is important to choose a database which covers your search area. For information on the focus of a database hover over the database title or click the blue ‘Databases’ link.

To select a database to search, tick the relevant tick box. Your chosen database will then be highlighted green. In the pictured example Medline has been selected.

TOP TIP: To be able to use all search functions, search ONE database at a time.

NICE Healthcare Databases
Advanced Search

nhslfarnsworth001

New Search Strategy | My Search Strategies | Saved Results | Alerts | Import | Help | Cookies

Welcome to the new HDAS.
Please visit the help file for tips, guides and videos on how the new features work.

Search: Search Thesaurus

Databases: Select All AMED BNI CINAHL EMBASE HBE HMIC Medline PsycINFO PubMed

Fields: ti Title ab Abstract au Author is ISSN jn Journal Name [More Fields](#)

Limits: Enable Limits to set advanced search options

Display: Results Search History Only [Lower Search Panel](#)

Once you have selected your chosen database enter your **first** keyword/search term into the search box and click the blue search button.

Using the above search example **cbt** would be entered into the search box.

Note that by default you are searching for your search term within the title and abstract of all articles held by the database (see fields options). Title and abstract searches will be fine for most searches however other options can be selected if required e.g. if searching for a specific author you would deselect the title and abstract options and select the author option instead.

Fields: ti Title ab Abstract au Author is ISSN jn Journal Name [More Fields](#)

Limits: Enable Limits to set advanced search options

Display: Results Search History Only [Lower Search Panel](#)

Current search strategy: Save Strategy

	Database(s)	Search Term			
<input type="checkbox"/> 1	Medline	(cbt).ti,ab	Viewing (6,939)	Edit	

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

Once the search has run a **'Search Strategy'** box will appear.

The search strategy box shows that, in this case, the MEDLINE database has been searched for the term **cbt**. It also shows that there are 6,939 articles in the database which contain the term **cbt** somewhere in their title/abstract.

TOP TIP: Save your search by entering a name of your choosing into the 'Name this strategy box' then click the 'Save Strategy' button. Once saved the system will continue to auto save the rest of your search terms. Saved searches can be viewed/rerun/edited at a later date by clicking the 'My Search Strategies' option at the top of the page.

To continue with your search delete your previous search term from the search box and enter your next search term or search phrase (in this example depression). Click search.

Each of the terms that you search for will appear in the search history box (see below for example).

Once you have entered your search terms you need to combine them using Boolean Logic (AND/OR).

OR is used to combine related search terms and will widen a search to look for all records where **any** of the searched for terms occur. **AND** will narrow a search to show only those records which contain all of the searched for terms.

Current search strategy: CBT & Depression

	Database(s)	Search Term			
<input checked="" type="checkbox"/> 1	Medline	(cbt).ti,ab	View Results (6,939)	Edit	
<input checked="" type="checkbox"/> 2	Medline	(depression).ti,ab	Viewing (253,672)	Edit	

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

To combine terms click the relevant check boxes to the left of the **'Search Strategy'** box. Decide which Boolean term to use (AND/OR) and check the relevant option. Finally, click the navy **'Combine'** button.

From this example we can see that there are 1,929 articles within MEDLINE which contain the terms **cbt AND depression**.

	Database(s)	Search Term		
<input type="checkbox"/>	Medline	(cbt).ti,ab	View Results (6,939)	Edit
<input type="checkbox"/>	Medline	(depression).ti,ab	View Results (253,672)	Edit
<input type="checkbox"/>	Medline	(1 AND 2)	Viewing (1,929)	

The above is an example of a simple search as it only uses two search terms.

The search could be developed by adding alternative search terms and using appropriate limits.

Making your search more specific can help you pinpoint relevant information more quickly. With this example using keywords for teenagers will make the search more specific to the research question.

	Database(s)	Search Term		
<input type="checkbox"/>	Medline	(cbt).ti,ab	View Results (6,939)	Edit
<input type="checkbox"/>	Medline	("cognitive behavioural therapy").ti,ab	View Results (2,453)	Edit
<input type="checkbox"/>	Medline	("cognitive behavioral therapy").ti,ab	View Results (5,614)	Edit
<input type="checkbox"/>	Medline	(1 OR 2 OR 3)	View Results (11,318)	
<input type="checkbox"/>	Medline	(depression).ti,ab	View Results (253,672)	Edit
<input type="checkbox"/>	Medline	("depressive disorder").ti,ab	View Results (19,571)	Edit
<input type="checkbox"/>	Medline	("depressed patient").ti,ab	View Results (510)	Edit
<input type="checkbox"/>	Medline	(5 OR 6 OR 7)	View Results (260,477)	
<input type="checkbox"/>	Medline	(teenager).ti,ab	View Results (2,101)	Edit
<input type="checkbox"/>	Medline	(teenagers).ti,ab	View Results (9,809)	Edit
<input type="checkbox"/>	Medline	(adolescence).ti,ab	View Results (39,516)	Edit
<input type="checkbox"/>	Medline	(adolescent).ti,ab	View Results (90,175)	Edit
<input type="checkbox"/>	Medline	(teen).ti,ab	View Results (4,109)	Edit
<input type="checkbox"/>	Medline	(9 OR 10 OR 11 OR 12 OR 13)	View Results (129,318)	
<input type="checkbox"/>	Medline	(4 AND 8 AND 14)	View Results (216)	

The above screenshot is an example of a more specific and detailed search which will locate articles on the use of cbt with depressed teenage patients.

Limiting your search

Limits are a useful way to further reduce the number of results, while making your search more specific and hopefully as a result more relevant to your research topic. Available limits will depend on the database you are using and may include published date, age group, gender etc.

To apply a limit to your search, first identify the search row you would like to limit (usually your last search line) and make a note of its search row number (found on the left next to the checkbox). In the above example it was number 15. Scroll to the search box and enter the search row number, click the limits checkbox and then select your limit(s). In this example a date limit has been chosen. Click search.

Search: 15

Databases: Select All, AMED, BNI, CINAHL, EMBASE, HBE, HMIC, Medline, PsycINFO, PubMed

Fields: Fields are not available for existing search rows

Limits: Limits, Article Type, **Dates**, Gender, Age Group, Language, Other, Reset Limits

Publication Date: From 2011 To 2016

Display: Results, Search History Only, Lower Search Panel

A further search row will then appear showing the results of the applied limit(s). This example shows that a date limit

<input type="checkbox"/>	Medline	(teen).ti,ab	View Results (4,109)	Edit
<input type="checkbox"/>	Medline	(9 OR 10 OR 11 OR 12 OR 13)	View Results (129,318)	
<input type="checkbox"/>	Medline	(4 AND 8 AND 14)	View Results (216)	
<input type="checkbox"/>	Medline	15 [DT 2011-2016]	Viewing (121)	

(articles published between 2011 – 2016) reduces the number of results from 216 to 121 and allows the searcher to focus on recently published articles.

Note: it is not possible to combine limited search lines using AND or OR.

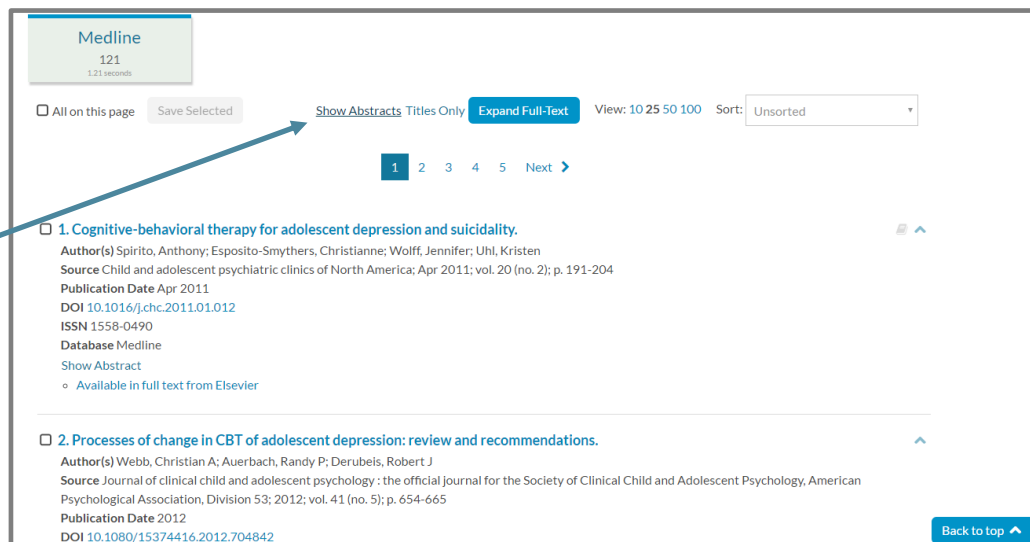
5. Your results

To view your search results click on the 'view results' link in the search strategy box or, if the link says 'viewing', scroll down the page to find your displayed results.

To view the abstract or summary of a listed result click on the title of the article (in blue). This will take you to the 'Result Detail' screen.

Alternatively, click the 'show abstracts' link. All abstracts (where available) will be displayed.

After viewing an individual abstract you can return to your results list by clicking the 'Back to results' button. To move through the results pages, click the 'Next' button or click the required page number.



Some of the listed references/abstracts will include links to the full-text article – e.g. 'Available in fulltext from.....'. Clicking on the blue link will take you to the publisher's website where you can read, print or save the article. You may have to prompt the download on the publisher's web page by clicking an OpenAthens link or Login via OpenAthens. NB: the location of the download/save/print article button will vary depending on the article's publisher.

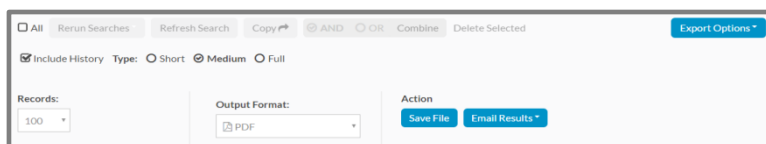
If the full-text of a useful article is not available you can request a copy by filling in an inter-library loan request form. Contact a member of the Library team for information.

6. Saving results

You can save results of interest so that they can easily be viewed at a later date. First make sure you have saved your search strategy (see the Top Tip on page 3). Then as you scroll through your results list tick the checkbox of any results you find useful (the checkbox is found on the left hand side of each result). When you reach the bottom of the page click the blue 'add ..to saved' button. If relevant, proceed to your next page of results and repeat.

Saved results can be viewed by scrolling to the very top of the page and selecting the saved results option. Once selected click on the blue link under the 'Number of Results' column in order to view.

Saved results can be exported. To do this scroll to the search strategy section and tick the check box next to saved results (saved results are found at the top of the search strategy). Once selected scroll to the bottom of the search strategy section and click the blue 'Export options' button. After clicking the export button some options appear. We suggest selecting 'Full' (so that available abstracts download). You will also need to choose a number from the records box which is larger than the number of articles you wish to download. Once you have made your selection choose 'Save file' to download or 'Email results' to email the results to yourself or colleagues.



To start a new search, scroll to the top of the page and click the green 'New Search Strategy' option.

For more information on locating journal articles, see the leaflet 'Finding journal articles' available from the Library or from the Library intranet pages. Alternatively you can book a place on one of the Library's 'Searching Clinical Databases' courses – ask staff for details.

Search Techniques

1. Operators

To search for information on a topic, e.g. asthma in children, you may combine the different subjects that make up your topic using specific terms (e.g. AND, OR) which the database 'understands' as a command. These terms are known as Boolean Operators. The table below lists the available operators in the NICE Evidence Healthcare Databases. NB: operators must be typed in capital letters.

Operator	Example text	Database will retrieve:	Information retrieved will cover:
AND (NB: Most databases automatically combine multiple search terms with AND)	asthma AND children or asthma children	Your search words in any position in any order.	Articles about asthma in children
OR	aspirin OR paracetamol	Any one or more of your search words.	Articles referring to either aspirin, or paracetamol, or both together.
NOT	surgery NOT GP	Search word before the operator but not the one after it.	Articles about surgery (operations). Articles referring to GP surgeries and articles referring to GPs doing surgery will not be listed.
ADJ	heart ADJ attack	Search words next to each other, in the same order.	Articles referring to heart attacks, but not other heart problems or other types of attack.
ADJn e.g. ADJ5	school ADJ5 nurse	Your search words within the specified number of words (n) of each other, in any order.	Articles referring to: "school nurse," "nurse at Anytown school," "nurse working in a school" etc.

2. Phrase Searching

Phrase searching (similar to using the operator ADJ) is a handy technique which can help narrow your search. It is best used when the order of your search words is particularly important. For example, if you were to search for **accident and emergency department** the database will retrieve articles which contain all three of your search terms (**and** will be ignored as it is too common a word to search on) anywhere in the title and abstract (presuming you are searching in the title and abstract fields). However, if you search using quotation marks e.g. **"accident and emergency department"** the database will only return articles which contain all your search terms (including the and) in that specific order.

3. Truncation and Wildcard Searching

The databases can also search for alternative spellings of words. For example, you might want to expand your search by searching for different forms of the same word at the same time, e.g. **nurse**, **nurses** and **nursing**. To do this, simply enter the letters that feature in all the alternative spellings, in this case **nurs**. Then enter the truncation symbol *. You may sometimes get unwanted results. For example, **nurs*** will find results containing any of the words **nurse**, **nurses**, **nursing**, **nurse-led**. It will also find less helpful results, e.g. articles containing the word **nursery**.

Unlimited truncation: Can represent any number of characters	*	e.g. pregnan* will find pregnant, pregnancy, pregnancies
Limited truncation: number (n) specifies the maximum characters after wildcard symbol	*n	e.g. child*3 will find child, child's, children but not childhood
Optional wildcard: To substitute for one or no characters. Useful for searching for words which have American and British spellings.	?	e.g. p?ediatrics will find paediatrics and pediatrics