Searching NHS Healthcare Databases

NHS staff can search for healthcare literature using the NHS Healthcare databases (HDAS) platform. This session will provide you with an introductory overview of what HDAS is and how to plan and carry out a search and tips and techniques to help you get the most out of your searching.

Objectives

1. Accessing healthcare databases and selecting a database
2. Searching your database
   a. Keyword searches
   b. Thesaurus searches
   c. Combining searches
   d. Limiting searches
3. Saving, emailing and printing results
4. Re-run a search in other databases

By the end of this session you will…

- Know how to plan a search strategy
- Know how to carry out a basic database search including the use of search connectors and truncation
- Know how to carry out an advanced thesaurus-mapped search
- Know how to combine searches together
- Know how to re-run searches in other databases
- Know how to save search strategies and how to save, export or email results

Finding the Literature

Anyone working for the NHS in London has access to 8 healthcare databases: AMED, BNI, CINAHL, EMBASE, Health Business Elite, HMIC, MEDLINE, and PsycINFO. The platform for searching these databases is called the Healthcare Databases Advanced Search or HDAS. The databases contain references, often with summaries or abstracts, of articles that have been published in journals. Information may also be included from reviews, guidelines, dissertations, and book chapters.

How to access HDAS

The databases are accessible anywhere using an OpenAthens login and you can self-register for an OpenAthens Account from any PC on the Trust network or with a Trust or nhs.net email address. Go to https://openathens.nice.org.uk to self-register. Access HDAS at http://hdas.nice.org.uk.
Planning your search

Your search topic will determine how to search and which databases to use. You may find that just a basic search across a variety of databases will give you good enough results for your needs. However, for most healthcare topics, and for a search to support evidence based practice, you will need to do an advanced search. It is advisable that you search in more than one database and that you search each database individually.

Before searching take time to consider the exact information you need. If possible try to rephrase your topic as a question, this will help you to identify key concepts and in turn key terms or words.

Topic:
Research question:

Now you can list the major concepts of your topic:

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You should also consider any alternate words for your concepts, as this will help to broaden your search. Alternate terms can include: synonyms, broader or narrower terms or alternate spellings.

You may want to use a framework like PICO - patient/population, intervention, comparison/control, outcome. PICO is used in evidence-based medicine to frame clinical and healthcare related questions and can also be used to develop a literature search strategy.

Databases

**Allied and Complementary Medicine (AMED) 1985 – present**
AMED covers occupational therapy, physiotherapy, rehabilitation, plus alternative medicine. It includes over 400 English and European journals.

**British Nursing Index (BNI) 1992 - present**
This UK focused database contains articles from over 250 key English language nursing and midwifery journals.

**Cumulative Index of Nursing & Allied Health (CINAHL) 1981- present**
A US database covering all aspects of nursing and allied health. It contains materials from over 1,200 journals, theses and pamphlets.

**EMBASE 1974 - present**
With particular emphasis on European sources, this database covers the whole field of medicine. Drugs, pharmacology and substance abuse are particularly well covered using 5,000 journals, about 1,500 not used in Medline.
Health Business Elite (HBE) 1922 – present
This database covers journals detailing all aspects of health care administration and other non-clinical aspects of health care institution management.

HMIC 1979 – present
The Health Management Information Consortium comprises the Department of Health and Kings Fund databases. Both cover UK NHS health services management, policy and standards and social care and include details of reports as well as journal articles.

MEDLINE 1946 - present
This is a large US database of medical information. Other subjects covered include dentistry, veterinary medicine, medical psychology, genetics and advanced nursing practice. The database covers over 5,000 journals from 70 countries.

PsycINFO 1806 - present
Subjects covered relate to clinical, social and biological areas of psychology. Published by the American Psychological Association, material is included from 2,000 international periodicals.

PubMed
PubMed comprises over 25 million citations for biomedical literature from MEDLINE, life science journals, and online books

Keyword searching
Once logged in to HDAS the page looks like this:

1 – Search box - enter the first keyword or phrase you selected when planning your search – do not type in whole sentences.
2 – Fields - allows you to specify which fields are searched.
3 – Limits - to apply to a search, e.g. English language, dates, population type.
4 – Thesaurus – select this button to run a search for subject headings.
5 – Search - select this button to run a basic or keyword search.
6 – Databases – to select a database.
N.B. the options in 2 and 4 may vary between databases.
To carry out a keyword search:

- Enter your first keyword from your strategy into the search box
- Select your database - The default search fields for all databases are ‘Title and abstract’. Select additional fields if you want a broader search, or deselect fields to narrow your search
- Click the Search button or press enter on your keyboard

Search results are displayed below the search box. Your search will show as row 1 in the search strategy. Repeat the above steps for your other keywords.

You can view details of individual articles by clicking on the article title. If an article is available online a ‘Full text available’ link will be displayed.

**Advanced Searching techniques:**

**Phrase Searching**
If you want to search for a distinct phrase, put it in quotation marks. Typing “Healthcare staff” will instruct the database to find only these words next to each other in that order.

**Truncation**
Adding an asterisk (*) to the end of a word ensures the database also finds plurals and variations in word ending for you.

**Proximity searching**
Using ADJ will return results where the two terms appear in the order specified in the search. ADJn will return results in any order so long as the terms are sufficiently close to one another. For example Cancer ADJ cells will return results where cancer and cells are within one word of each other in the specified order i.e. “cancer cells” but not “cells cancer”, while Cancer ADJ1 cells will return results “cancer cells” and “cells cancer”. The proximity can be expanded by increasing the number next to the ADJ operator.

**Thesaurus searching**
A thesaurus is a list of terms (also called subject headings) which are used to index articles in a database. When you search using the thesaurus, you will find results that have been labelled as being about a particular term, rather than just mentioning the search term in passing or using an alternative term.

For example, a commonly used phrase is “heart attack”, but in the Medline thesaurus the term for that phrase is “myocardial infarction”. If you only carry out a keyword search for “heart attack”, you may miss many other articles that use “myocardial infarction” or other synonyms such as “cardiac arrest”. But if you use the thesaurus, you will find articles that use any or all of these terms and which have been checked to make sure that heart attack/myocardial infarction is the focus of the article. Each database has a different thesaurus, so you can only use thesaurus searching when you select a single database to search in.

To carry out a search using the thesaurus:

- Type your search terms into the search box
- Select a single database
• Click on the **Thesaurus** button. (note: if you have more than one database selected the Thesaurus button won’t be clickable)

The thesaurus opens and you will see a list of the subject headings that relate to your search term, click on the one that is most relevant to your search.

You will then see a structured view of your chosen term’s place in the index’s hierarchy. Databases list subject headings in a hierarchical structure starting with top level, broader categories, which then narrow down to more specific terms.

<table>
<thead>
<tr>
<th>Select</th>
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The subject heading most relevant to your term will be above the line, but you will be shown broader and narrower terms too. You can then tick the relevant **select** box to choose particular terms to add to your search, or for those terms where option is available, click on the term itself to further identify related terms you may want to add to your search.

**Advanced Searching tips:**

**Scope notes**
Provide contextual information about the term, use these to check if the term is the right one for your search.

**Explode**
Choosing **Explode** will retrieve all records including that subject heading, as well as all records including any narrower ‘child’ subject headings inset below the selected term within the thesaurus hierarchy.

**Major concepts**
Choosing **Major** returns only the results that have your chosen term marked as a key topic being discussed.
Combining searches

When you have several search lines in your strategy you can then begin to combine lines to refine your results using the AND or OR operators. Tick the boxes of the lines of the searches you wish to combine and then select AND or OR using the logic below before clicking on Combine:

<table>
<thead>
<tr>
<th>stress OR anxiety</th>
<th>Expands a search to retrieve documents that discuss either stress or anxiety</th>
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<tbody>
<tr>
<td>stress AND anxiety</td>
<td>Narrows a search to return documents that discuss both stress and anxiety</td>
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Limiting searches

Limits give you some advanced options about the types of information you search for e.g. dates to search between, age groups, language, etc. Each database has different limit options, so if you are searching in more than one database at a time, you will only see the limits that are common to all the databases you have selected.

You can apply Limits either before you search, or at the end of your search. If you are doing a search in which you need to combine rows you will need to apply your limits at the end of your search.

Re-run searches

To re-run a search in another database:

1. Once you select the row you wish to rerun the Rerun Searches button will become active.
2. Click the Rerun Searches button and select the database(s) you wish to search.
3. Hit the Rerun Selected button on the right.

Saving, Emailing, or Exporting searches

To save a search use the Current Search Strategy field to give your search a name, then click the Save Strategy button.

You can also save individual articles by ticking the box(es) on the left hand side to select each result and then clicking the Add to Saved button. To retrieve saved searches click on My Search Strategies at the top of the screen. To retrieve saved results use the Saved Results tab.

Emailing and exporting searches can be done very easily, you can either choose to email or export all the results in a search row or just selected individual articles using the Saved Results row. To email or export results, firstly select your chosen results by clicking the checkbox next to the row and the Export Options button will become active. You will then have a number of options available; the choice between short, medium, or full record transcript; the number of records to export or email; and choice of PDF, Word, Excel, or RIS document format. To export results select Save File or to email results select Email Results.

Further help

There is a help page on the HDAS site to support users, the Help link can be found at the top of the page. NICE have also created several YouTube videos which go over the topics covered here and many more at https://www.youtube.com/playlist?list=PLRbwbc3dfXUO3IYIun-5ICK-Q059JXtqk
The Clinical and Research Enquiry Service (CARES) is a free literature searching service provided by St George’s Library to support clinical practice, service development and research. This service is available to NHS staff working for St George's University Hospitals NHS Foundation Trust, community service teams and South West London and St George’s Mental Health NHS Trust. For more information please contact us or visit http://www.cares.sgul.ac.uk/

Further help and support is available from the St George’s Library NHS Liaison team, who can be found in the St George’s Library, 1st Floor Hunter Wing.

NHS Library Contacts:

Karen John-Pierre
NHS and Liaison Manager
Tel: 020 8725 5433
kjohn@sgul.ac.uk

Stephen Reid
NHS Liaison Support Librarian/OpenAthens Administrator
Tel: 020 8725 5433
sreid@sgul.ac.uk

Sarah O'Reilly
NHS Liaison Support Librarian
Tel: 020 8725 5433
soreilly@sgul.ac.uk