



Example of a search strategy used in MEDLINE (Ovid)

The search discussed in this document is based on the following research question: *Would you recommend CBT or medication in order to manage violence in patients with schizophrenia?*

This research question was broken down into four key concepts, using a PICO framework:

- Population = patients with schizophrenia
- Intervention = cognitive behavioural therapy (CBT)
- Comparison = medication
- Outcome = frequency of violent episodes

A search based on three of these concepts was run in the MEDLINE database, accessed via [NUsearch](#). The fourth concept (outcome) was not included in the search as it would likely limit the final number of results. The results of the search are displayed in the table below:

Database: Ovid MEDLINE (All) 1946 –
Date of search: 24/07/2020

Line	Search	Results
1.	exp Schizophrenia/	104,450
2.	schizophreni*.mp.	148,672
3.	exp Cognitive Behavioral Therapy/	28,484
4.	cogniti* behavio?r* therap*.mp.	32,337
5.	CBT.mp.	11,060
6.	exp Antipsychotic Agents/	123,725
7.	(medication or drug* or antipsychotic*).mp.	6,010,365
8.	1 or 2	148,979
9.	3 or 4 or 5	37,666
10.	6 or 7	6,027,919
11.	8 and 9 and 10	653

Lines 1, 3 and 6 in the table show ‘exploded’ MeSH terms (Medical Subject Headings). For a systematic review, you should always explode a MeSH term (or equivalent subject heading in other databases), in order to capture more specific terms that are related to that subject heading. In addition, you should tick the ‘include all sub-headings’ box in order to make your search as comprehensive as possible.



Tip: Before selecting a MeSH term, read its 'Scope' note, to check whether it is appropriate for your concept. The Scope note will tell you what the MeSH term is used for and will also suggest related MeSH terms.

Lines 2, 4, 5 and 7 show keyword searches, i.e. free-text or natural language searches. Truncation (*) and wildcard (?) symbols have been used to maximise the efficiency of the search. When entering keywords in the main search field, remember to untick the 'Map Term to Subject Heading' box before running the search. When the results are displayed, you will see that **.mp.** appears at the end of the search line. This indicates that a keyword search has been applied to multiple fields (including the title and abstract fields).

Tip: When searching MEDLINE as part of a systematic review, you should use a combination of MeSH terms (where available) and keywords in your search strategy.

Line 8 combines the searches for the first concept (population) by using the Boolean operator **OR**.

Line 9 combines the searches for the second concept (intervention) with **OR**.

Line 10 combines the searches for the third concept (comparison) with **OR**.

Line 11 combines lines 8, 9 and 10 with **AND** in order to narrow down the results to just those records which reference all three concepts. The final number of records retrieved in this case is 653. These records would need to be checked for relevance and screened according to inclusion/exclusion criteria. If the final number of records is too small or too large, you may need to revise your search terms. However, a low number of hits may also be due to sparse literature published on your topic, especially if it is in a new or emerging research area.

Tip: MEDLINE allows you to create a personal account ('My Account') so you can save your searches and revise or re-run them at a later date. You can create your own login details for this account.

Tip: Subject headings will be different in each database (assuming the database does use a controlled vocabulary) and the way you construct keyword searches will also vary. Always read the database's help pages on advanced searching techniques.