

Grady Evidence-Based Medicine Search Technique

Preparing your subject search in Ovid or PubMed:

- If using Ovid, choose the ‘1966-Present’ MEDLINE database.
- Develop a large group of articles that adequately represents your topic. For the techniques described below, a **simple search using general terms** and producing a lot of articles is preferable to a precise search. Aim for a final set of around **300-500 articles**.
- If retrieval is small, expand the hit-count for each part of your question by using the ‘OR’ connector to gather together MeSH subject terms, title words, or textwords that have similar meanings. In doing this, try to arrive at a count of several thousand hits for each of the unique concepts that make up your search question. Then combine these built-up individual concept sets using the ‘AND’ connector.
- Performing a precise, narrow search may unfortunately exclude important evidence-based articles, such as systematic reviews and meta-analyses, that tend to be indexed or titled using very general terms.
- Do not limit to restrictive time periods or fulltext articles.
- Limit your search to **Human and English**.

< 100 articles:

Ovid	PubMed
Re-do without LIMITS	Uncheck LIMITS tab
Use ‘OR’ to build sets from synonyms/ like terms	Use ‘OR’ with parentheses to build sets
Use textwords: beta blockers.tw	Use textwords: beta blockers[tiab]
Truncate title/textwords: beta block\$.tw	Truncate title/textwords: beta block*[tiab]
EXPLODE Mesh terms	
Don’t use FOCUS	
Don’t use subheadings	

> 1000 articles:

Ovid	PubMed
‘AND’ in additional concepts to narrow the search	
Use More Limits’ link [below entry panel] – Age Groups, Core Clinical Journals, etc.	Use LIMIT tab [below entry panel] – Age Groups, Core Clinical Journals, etc.
FOCUS MeSH terms	DETAIL tab: replace any [MeSH Terms] suffixes with [MAJR] suffix
‘AND’ in specific title words: lisinopril.ti	DETAIL tab: replace any [Text Word] or [All Fields] suffixes with [TI] suffix.

Ovid Rescue: Use this technique if you have trouble with your topic:

- Use 2 or 3 words or phrases important to your question and perform a ‘title word’ search using the ‘**Title**’ **button** above the keyword entry panel. Use the ‘AND’ connector between each word or phrase.
 - Find 3 strong articles on your topic and open each in turn using ‘**Complete Reference**’ view in order to observe the MeSH subject headings in blue hotlink type listed below the basic citation information. Note the **major subject headings**, identified with an asterisk (‘*’) in front of each.
 - Across the 3 articles, decide which **major subject headings** are used in common.
 - Re-perform your search using the discovered **major subject headings**. For best effect, use the Boolean ‘OR’ connector to combine title words and subject headings representing like concepts.
- OR -
- Shade and copy just the numeric portion of the ‘**Unique Identifier**’ for a strong article produced by the title word search above, go to **PubMed**, paste the number, click ‘Go’, and click ‘**Related Articles**’.

PubMed Rescue: Use this technique if you have trouble with your topic:

- use 2 or 3 words or phrases important to your question and perform a ‘title word’ search using the **Single Citation Matcher** at left menu and the ‘**Title Words**’ entry panel.
- from the result list developed above, locate 1 very strong article on your topic and click the ‘**Related articles**’ link associated with it.

EXTRACTION METHOD #1 – Database Features

OVID EBM Reviews: This extracts articles associated with Cochrane, DARE, and ACP Journal Club:

- Use the ‘**EBM Reviews**’ limit from the ‘quick limits’ located below the keyword entry panel.
- Make sure the limit is being applied to the main human/English set for your topic.

PUBMED Clinical Queries: This uses the McMaster EBM filters for EBM categories, paired with various MEDLINE publication type indexing terms and bellwether title words:

- Shade and copy the search query from the keyword entry panel.
- Click on ‘**Clinical Queries**’ at left menu.
- Paste the search query into the ‘**Search By Clinical Study Category**’ search box.
- Select the proper **Category** and **Scope** buttons to match your question.

EXTRACTION METHOD #2 – Evidence-based Publication Types.

OVID

- Click on ‘**More Limits**’ just below the keyword entry panel.
- Select the proper set to limit – this should be the main human/English set for your topic.
- Scroll down the page to the ‘**Publication Types**’ box.
- Follow the mnemonic: “**Can Get More Productive Results**”, choosing these specific publication types:

Consensus Development Conference	Guideline	Practice Guideline
Consensus Development Conference, NIH	Meta Analysis	Randomized Controlled Trial
Controlled Clinical Trial	Multicenter Study	

PUBMED:

- Click the ‘**Limits**’ tab just below the keyword entry panel.
- Scroll down the page to the ‘**Type of Article**’ box, choosing these specific publication types:
- Follow the mnemonic: “**More Productive Results Can Guide Me**”, choosing these article types:

Meta Analysis	Consensus Development Conference, NIH
Practice Guideline	Controlled Clinical Trial
Randomized Controlled Trial	Guideline
Consensus Development Conference	Multicenter Study

EXTRACTION METHOD #3 – Clinical Filters

Special EBM Filters

Use the ‘**Grady EBM Filters**’ for either OVID or PUBMED to extract the ‘levels of evidence’ hierarchy for your topic, as well as other evidence categories, from: <http://www.emory.edu/WHSCl/grady/inetgrp/hpebm.html>

Use the following filters to develop a profile of the state of research on your topic:

- **Systematic Reviews and Meta-Analyses**
- **Randomized Controlled & Controlled Trials**
- **Less Rigorous Studies, Clinical Series, etc.**

Also try:

- **Can Get More Productive Results” Search** – Results identical to Extraction Method #2, above
- **Clinical Characteristics Case Series** – frequency/incidence of presenting symptoms, etiologies, etc.
- **Sensitivity and Specificity** – provides sensitivity/specificity numbers for diagnostic tests.
- **Gold Standard Evaluation of Diagnostic Tests** – diagnostic tests measured against validated patient groups.

Other clinical filters are available within Databases (Ovid ‘More Limits’ link, PubMed Clinical Queries page) or on the internet. For a listing, see the Evidence-Based Medicine page at:

<http://www.emory.edu/WHSCl/grady/inetgrp/hpebm.html>