Information Survival for Medical Students, Part II

1) Complex Searches
(flexibility, broader terms, text words, adjacency, PubMed related articles)

2) Evidence-based Information
(Ovid Medline, Ovid EBM Databases, PubMed Clinical Queries)

This handout is for times that you need specific and rather complex information for patient care. Often these sources will be “primary literature” (original publications of clinical studies or case reports).

1) Complex searches: A full discussion of complex searching strategies is beyond the scope of this handout, so feel free to consult a librarian for further searching hints. Be aware that for rare combinations of diseases, symptoms, drugs--or for very unusual diseases--the best evidence you can gather may only be a case report!

OvidSP® Medline is a good place to start. Use “Advanced Ovid Search” for the most comprehensive search options. Another way to expand retrieval for complex searches is to take one reference that is relevant and use its “UI -- unique identifier” or “PMID” number in PubMed to find other related articles that are like it. (Remember to use the UMKC PubMed site http://www.ncbi.nlm.nih.gov/sites/entrez?myncbishare=moumkclib so you can get UMKC journal holdings information.) -- But now, back to the OvidSP Medline® search options.

- Consider other ways to say the same thing or other related ideas. For instance in addition to the disease term, Pneumonia, Pneumocystis consider the infectious agent, in this case – Pneumocystis jirovecii.
- If you are combining topics that seldom occur together, remove the “focus” from your terms, as you want a broad set of references in each topic.
- Because Medline is a structured database, sometimes you may find information in a broader term that includes that concept. For instance from this list from a search for “PCP” click on the blue line under Pneumonia, Pneumocystis to find the broader term, Lung Diseases, Fungal.

- Still no information? Expand the search by using text words. You can find this option under the Search Fields tab. (See illustration on the following page.)

<table>
<thead>
<tr>
<th>Select</th>
<th>Subject Heading</th>
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<tr>
<td></td>
<td>phenylcyclidine</td>
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<tr>
<td></td>
<td>Pneumonia, Pneumocystis</td>
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<td></td>
<td>phencyclidine Abuse</td>
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<td></td>
<td>arthritis, rheumatoid</td>
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<td>pentachlorophenol</td>
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</tbody>
</table>

[-] Lung Diseases, Fungal 7197
- Aspergillosis, allergic bronchopulmonary 1371

[ ] Pneumonia, Pneumocystis 7315
Options appear alphabetically. -- (Many fields were omitted for brevity.)

- If you can’t find a term that precisely matches your term in the list of suggested search terms, in map to keyword searching, try using **truncation or adjacency**, either in the title field or as a text word, to find your own concept. For instance if you are looking for “pegylated interferons,” in addition to combinations of terms like Ribavarin and Interferon Alfa-2a, you might simply search for the terms themselves. “ADJ” searches for the terms directly next to each other and in that order. Pegylat$ adj interferon$ -- The dollar sign is a truncation symbol that pulls up everything that starts with those letters, no matter how the word ends.

**WHEW!** -- Please feel free to ask a librarian for assistance.

2) Evidence-Based Information

- **Guidelines.** Though not all guidelines are created equal in their grounding in scientific evidence, they are one of the easiest places to find information that is endorsed by experts.
  a) **Guidelines.gov** Try the free Internet site [http://www.guidelines.gov](http://www.guidelines.gov) that provides many electronic full text documents. For association sponsored guidelines, you also may be able to find the full text from the association’s website.
  b) **Ovid or PubMed searches** – Limit to the publication type, Practice Guideline. In Ovid click on the green limits bar and then click on “Additional Limits.” [Another very useful publication type, for EBM searches on Ovid Medline is: Clinical Trial, All.]
In PubMed, click on the limits tab that is above the search box.

As you can see, there are a number of other limit options as well.

c) To expand your search, use **words related to guideline in the title** of the article and “AND” this with your topic. For instance in OvidSP Medline: (recommend$. or consensus or guideline$).ti. The $ retrieves all words that start with those letters; “.ti” asks that these words be in the title of the search.

- **EBM Databases on OvidSP** - I most frequently use the **Cochrane Database of Systematic Reviews**. This database gives a meta-analysis on a large number of clinical topics. To synthesize this data, the group calls together a panel of experts who do a comprehensive review of the literature, select the well-designed clinical trials (if any) and combine the data to give clinical recommendations. Thus, this is a full length article. (Search hint – since otherwise, the system will search the *whole* article for the words you enter, limit the search to title words.)

  Within the Ovid EBM databases, I also sometimes use the **ACP Journal Club** and the **Database of Reviews of Effects** which critique either published clinical studies or review articles. A fourth database that I occasionally use is the **Cochrane Central Register of Controlled Clinical Trials**, which is an indexing tool similar to Medline and gives some older references and some references to conference proceedings or foreign materials not included in Medline.
Clinical Queries on PubMed for Evidence-based Topics


Try this very efficient search tool for evidence-based literature. Notice the Clinical Queries option near the bottom of the screen.

Here is a look at a PubMed Clinical Queries search for antibiotic therapy of pneumocystis pneumonia that asks for a narrow search. If you click on the see all (46) in the clinical studies section, you see a regular PubMed display. (See image on the following page.)
Results: 1 to 20 of 46

Related citations

Related citations

Related citations

Related citations