GMS MS 640: Introduction to Biomedical Information
Week 5: More than Medline: other databases

This Handout contains notes on using the following resources: BIOSIS, Web of Science, PsycINFO and LexisNexis. If you have questions about these resources, please contact the Reference Desk at refquest@bu.edu.

BIOSIS AND Web of Science

Sample Thesis Case 1:

In 1994, GMS student Julie Harder researched the efficacy of different treatments for controlling anaphylactic shock in patients allergic to insect venom from the order Hymenoptera. (This order is comprised of bees, wasps, ants and other stinging insects). Intrigued by Harder’s work and curious if any new papers have been written on the subject, you run a comprehensive search in Ovid MEDLINE which yields forty-five results. Convinced that there must be more citations covering this field of study, you decide to run the search again in two new databases, BIOSIS and Web Of Science.

Ovid MEDLINE Search

Enter Hymenoptera
Enter Venom (maps to Venoms)
Enter Anaphylactic Shock (maps to Anaphylaxis)
Enter Treatment (maps to Therapeutics)
Combine sets 1,2,3 and 4

Ovid MEDLINE(R) 1996 to November Week 2 2007

<table>
<thead>
<tr>
<th>#</th>
<th>Search History</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>exp Hymenoptera/</td>
<td>5283</td>
</tr>
<tr>
<td>2</td>
<td>exp Venoms/</td>
<td>13039</td>
</tr>
<tr>
<td>3</td>
<td>exp Anaphylaxis/</td>
<td>3652</td>
</tr>
<tr>
<td>4</td>
<td>exp Therapeutics/</td>
<td>942804</td>
</tr>
<tr>
<td>5</td>
<td>1 and 2 and 3 and 4</td>
<td>45</td>
</tr>
</tbody>
</table>

BIOSIS Search

- Choose BIOISIS from Database page (http://www.medlib.bu.edu/indexes/index_alpha.cfm?list=B), click on “Description”
- Biological Abstracts is the leading abstracting and indexing reference publication for life sciences information
- BIOSIS contains 1.8 million records dating back as far as 1926
Click on the “BIOSIS” link:

Using the Advanced Search option, enter the following:

Hymenoptera AND
Venom* (use truncation to get Venom or Venoms) AND
Anaphyla* (use truncation to get Anaphylactic Shock or Anaphylaxis)

This search yields 136 records

Do a new Advanced Search for:

Treatment* (use truncation for Treatment and Treatments) OR
Therap* (use truncation for Therapy, Therapies and Therapeutics)

This search yields 2,089,707 results

Using Search History, Combine Sets #1 and #2

This search yields 85 results

Other Features:

- Similar to Ovid MEDLINE, BIOSIS includes the “Complete Record” and “Find Similar” features. Users also have the option to print, save or email results
- Not that all journals held by BU currently show up in BIOSIS. If you locate a journal article that does not have a full text link, be sure to search for the title of the journal in the BU library catalog (http://library.bu.edu) to check if BU owns the journal.

**Web of Science (Knowledge) Search**

- Choose Web of Knowledge from Database page
  (http://www.medlib.bu.edu/indexes/index_alpha.cfm?list=W)
- Please note that Web of Science is referred to as Web of Knowledge on our pages. Web of Science is actually a subset of Web of Knowledge
- Web of Knowledge contains approximately 37 million citations from almost 9,000 journals in science, technology, social sciences, arts and humanities
- The date range for selected resources dates back to 1900, making Web of Science an ideal platform for retrospective searches
Using the Advanced Search option, enter the following:

TS=hymenoptera
TS=venom*
TS=anaphyla*
TS=treatment*
TS=therap*
Combine 4 OR 5
Combine 1 AND 2 AND 3 AND 4

This search yields 104 results.

Other Features:

- You can print, save or email results as well as limit results by Subject, Document Type or Language.
- You can also sort by “Times Cited”. This is often (although not always) a way to identify the most important authors or seminal articles in a field. For example, an article may also become frequently cited if it is controversial or even fraudulent research.

Sample Thesis Case 2:

In 2006, GMS student Eric Cirino was interested in studying the associative risks between antidepressants and suicidal ideation and behavior. In particular Cirino’s research focused on the growing concern related to serotonin reuptake inhibitors (SRIs) and whether or not these drugs increase suicidal thoughts and behaviors in depressed teens.

Medline would be an appropriate database to search for this topic. However, because this topic addresses psychological topics a search in PsycINFO would also be appropriate.

**PsycINFO Search**

- Created and maintained by the American Psychological Association (APA)
- Indexes journal articles, dissertations, books, book chapters, technical reports, and other documents in psychology and the behavioral sciences.
- Coverage is from 1887 to the present
- “Your source for psychological abstracts” containing over 2.4 million records from over 2,150 peer review journals (the bulk of the database)
- Contains a specialized controlled vocabulary (Thesaurus of Specialized Psychological Terms) based on MeSH that is accessible by using the database’s thesaurus tab
This is a database of abstracts and that you may have to dig for the full-text. Remember to search in the library catalog (http://library.bu.edu) for the journal title to identify our full-text holdings.

We get Psych Info through EBSCo, which is also the interface for other databases of interest like AltHealth Watch, Business Source Premier and SportDiscus.

Select the advanced search mode

Click on the thesaurus to find the appropriate term for SRI

- Note you need to enter the term “serotonin reuptake inhibitors” into the thesaurus browse box. It will not recognize SSRI or SRI.
- There is an option for mapping directly from the advanced search page, but it is pretty weak. Instead, you can copy and paste the vocabulary into the advanced search to build your own search.
- We recommend using the thesaurus to take advantage of the db’s controlled vocabulary
- Somewhat similar to the OVID display there is an option to explode or select the term as major (focus)

Explode serotonin reuptake inhibitors to include the narrower terms / 7691

You can use “narrow results by subject” to add in additional subjects within the left navigation bar. Click “major depression” / 2987

Add “suicide” to the search box as an “all text” / 123 (Note that suicide in the thesaurus is “suicide” and the narrower term is “assisted suicide, which is irrelevant.)

There is also the option to narrow using “suicide ideation” or “attempted suicide” which may be appropriate.

Other Features:

- There is also an option to narrow by publication type such as: journals; peer-reviewed journals, and books and monographs
- With your results list or the full record of a citation, you can view the cited reference and related references for an article. These features can be useful in expanding your research based on an individual article that you found useful.
Because the research linking antidepressants as a cause of suicide was controversial, many major news outlets (the New York Times, Newsweek, the Economist) have covered the story, which continues to evolve as the debate goes back and forth. A search of Lexis-Nexis Academic, a database containing full-text newspaper and magazine articles, legal cases, and business information, would give you information outside of a strictly medical viewpoint, as well as an idea of what your patients may be reading.

- Lexis originally a legal database that has been split into specialized databases for law, business, statistics, and government documents. LexisNexis Academic provides coverage to a combination of general news, business and legal sources.
- Mostly full-text access to 300 magazines, 350 newspapers, 600 newsletters, as well as unconventional sources (blogs, TV and radio transcripts, campus news, polls and surveys); 6000 sources in all.
- Some access to medical journals, most with legal or trade specialties
- Full list of sources, unlike Google Scholar
- Searches full-text, instructs you to “search like you do on the internet” with natural language, but can choose to use connectors and Boolean phrases in an advanced search (“power search”).

Enter the following search into the easy search box:
  SSRI AND suicide
Then search for:
  SSRI suicide
(be sure to take it off the 2 years previous default to all available dates)

- Note that the results are the same - 601 – Lexis Nexis ignores the word ‘and’ in natural language searches, unless enclosed in quotes. It’s not case sensitive.
- The database does not map terms, and the suggested searches can be misleading (“SRI and suicide” leads to many articles about Sri Lanka)

Instead search for the following:
  SSRI* suicide
Yields a lot more results (998)

Other Features:
- The database includes a “find document with similar subject” feature.
- You can also modify or narrow a search.