GMS MS 640: Introduction to Biomedical Information
Week 10: Complimentary and Alternative Medicine

**CAM definition**: The National Center for Complimentary and Alternative Medicine defines complementary and alternative medicine as a “broad range of healing philosophies, approaches, and therapies that mainstream western medicine does not commonly use, accept, study, understand or make available”

**In-class exercises:**

Your nurse takes a call from your twenty-seven year old patient, Rebecca. Rebecca is a new mother with a three month old daughter. She mentions to the nurse that she is having difficulty sleeping, although being mentally and physically exhausted and has begun drinking Sleepytime tea, which contains Valerian root. She is concerned that as a nursing mother this herb may be a problem for her daughter and she wants your advice.

*Clinical Question: Does consuming valerian interfere with breastfeeding?*

**SUBJECT A-Z: Complementary Therapies**

- Note the NCBI book: *Alternative Medicine and Rehabilitation* (see below)
- In addition to journals we have e-magazines and newsletters
- CAM resources (and all medical literature for that matter) need to be critically evaluated.

**INTERNATIONAL BIBLIOGRAPHIC INFORMATION ON DIETARY SUPPLEMENTS (IBIDS)**

- A collaboration between the NIH and USDA
- As of September 2007 there are over 760,000 citations on the topic of dietary supplements from four major database sources: biomedical-related articles from MEDLINE, botanical and agricultural science from AGRICOLA, worldwide agricultural literature through AGRIS, and coverage of international applied life sciences literature from CAB Abstracts and CAB Global Health.

The scope of IBIDS includes:

- The use and function of vitamin, mineral, phytochemical, botanical, and herbal supplements in human nutrition,
- The role of nutrient supplementation in metabolism in normal nutrition and disease states,
- Animal studies that relate to the function of dietary supplements in human nutrition,
- Chemical composition, biochemical roles, and antioxidant activity of botanical and nutrient supplements,
• Fortification of foods with supplemental nutrients and health-related effects,
• Nutrient composition of herbal and botanical products,
• Surveys on dietary supplement use by various populations,
• The growth and production of herbal and botanical products used as dietary supplements.
• Abstracts where permission has been granted from the publisher
• Citations from 1986 to the present from over 9000 journals
• Citations in foreign languages, if the abstract is in English. Citations have been selected from multiple databases to ensure that the database is comprehensive and internationally representative.
• Full, peer-reviewed and consumer journal databases

Search notes:
• OR is assumed between search terms and is not necessary
• AND is not recognized unless noted as +. In this database the + symbol seems to represent that a term must be present in the search. For example, the search +valerian +pregnancy ensures that both terms will be included in your retrieval. Without + in front of valerian the word becomes optional.
• * is the wild card symbol
• This database does not recognize two letter words
• “ “ is used for phrase searching
• It is possible to limit the retrieval to either consumer or peer-reviewed references.

Example: do the keyword search for Valerian by selecting it from the keyword search drop-down menu
Retrieves: 193 records

Example of the refined search:
+valerian +pregnan*
Search “All IBIDs References”
Retrieves: 3 records

Scroll down until the record:
Title: A developmental toxicity-screening test of valerian.
Author: Yao,-M; Ritchie,-H-E; Brown-Woodman,-P-D
Citation: J-Ethnopharmacol. 2007 Sep 5; 113(2): 204-9

• Click on “detail” - this will open the full-record which includes relevant key words
• Users may “Save checked records” by checking off the appropriate boxes and clicking “save checked records” at the bottom of the page. This provides the option to email saved citations.
**PubMed Subset:**
- The link to the PubMed subset is located on the A-Z page, which pre-sets the limit to CAM resources. When this limit is selected they are not searching the entire database. There are no records available for a search “breast feeding AND valerian” in the CAM subset.

**Medline Plus: Herbs and Supplements database**
[http://www.nlm.nih.gov/medlineplus/druginfo/herb_All.html]
- Select V and then select valerian.
- Find the note regarding breast feeding in regards to Valerian.

**Natural Standard**
- Information provided by an international research collaboration that includes representatives from western and alternative medicine specialties.
- Regarded as a highly regarded resource for alternative medicine; information is evidence based and peer-reviewed.
- BUSM faculty members have contributed to this resource.
- Provides systematic reviews as well as “bottom line” summarized information, including grades, for alternative therapies based on proof of effectiveness.

Example search:
- On main page, go to “Foods, Herbs, and Supplements”. Navigate to “Valerian”
- Accept terms of use
- Go into bottom line monograph
- Notice information on safety (scroll a bit to see “pregnancy and lactation”), dosing, interactions
- Go back to main Valerian page (will be in another tab in the same window) and click on professional monograph
- Notice patient handout, precautions/contraindications
- Go back to the main page and take a couple of minutes to explore different topics on your own.

**Next Case:**

Mowing lawns over the summer left Dan with a significant injury: an amputated foot.
What makes Dan the most uncomfortable now is that he still feels pain in his missing foot. He's heard acupuncture is one treatment for phantom limb pain, but is confused about the background of the treatment, and where the needles will be placed.

You say you will do some research and let him know as much as you can.

**ALTERNATIVE MEDICINE AND REHABILITATION: A GUIDE FOR PRACTITIONERS (E-book)**
- Freely accessible e-book from virtual NCBI bookshelf
- Provides critical analysis of certain alternative medicine techniques for practitioners of western medicine

Search Terms:
- Search “acupuncture” in the search box on the left screen, leaving the setting as “This book”
- Find “Acupuncture points” or “Acupuncture treatment” – it is difficult to find this sort of general background information on Medline.
- Take a look at “Western Biosciences and Acupuncture” for a summary of acupuncture from a western medical perspective.

**ALT HEALTHWATCH**
- Database that focuses on complementary health and wellness
- Provides full-text access to over 180 journals, many peer-reviewed
- Also offers access to newsletters, pamphlets, booklets, special reports, original research and book excerpts.

Search Terms:
- Search “acupuncture” and “phantom limb” – 21 results
- Go into “Refine search” and limit to peer-reviewed, run search again (17); option if concerned about quality of information