Formulating a Search Strategy

Example Scenario

You are interested in the use of vitamin C to prevent common cold.

Search Planning

Begin the search process by formulating a search question. The question should be precise, narrowly focused, and satisfy the information need. In this case, the search question could be: Can vitamin C be used to prevent a common cold?

In order to search successfully, break up your research question into a few key concepts. For instance, the aforementioned question can be broken down into two main concepts: (1) vitamin C and (2) Common cold.

There are several frameworks people use to structure research and search questions. The PICO framework (Patient, Intervention, Comparison, Outcome) is most popular and works especially well for treatment topics. In this scenario, we are using a more flexible model called “concept boxes” for less complex searches.

Combining Concepts

Once you have broken down the topic into its main concepts, you may combine these concepts using the Boolean operators: AND, OR, or NOT.

- Use **AND** to retrieve results where both terms occur in the same reference. **AND** narrows your search
- Use **OR** to group synonymous terms together and retrieve results that contain either or both of your search terms. **OR** broadens your search.
- Use **NOT** to remove unwanted terms from any set

Example of searches conducted using Boolean operators. The blue area represents the results that would be retrieved from each search:
Accessing Medline through OVID

To access Medline, find Medline under the Databases section of the library homepage.
You will be prompted to select a specific resource. There are many versions of Medline that differ in their dates of coverage. Select Ovid MEDLINE(R): 1946 to present to retrieve the most comprehensive information from all time periods available.

Select Resource(s) to search:

- Ovid MEDLINE(R): 1946 to present
- Ovid MEDLINE(R) 1946 to October Week 3 2012
- Ovid MEDLINE(R) without Revisions: 1946 to October Week 3 2012
- Ovid MedWorld: 1966 to September 2012
- EB Davis Full Text - Cochrane DSIR, ACP Journal Club, and DARE
- All EB Davis Full Text - Cochrane DSIR, ACP Journal Club, DARE, CurrEyeCare, CIN, HTA, and NHSEED
- Journal@Ovid: October 15, 2012
- Journal@Ovid: October 18, 2012

Select Resources:

Searching in Medline

Input your concepts one at a time

By entering your concepts separately, you are allowing Medline to match your terms to its own special vocabulary, known as MeSH (Medical Subject Headings). Using MeSH will improve the accuracy of your search. Map Term to Subject Heading box is the default when you open Medline.

Note: Always try using MeSH vocabulary first, this will improve the accuracy of your search. If you are unable to find an appropriate MeSH heading for your concept, then use keywords.
Understanding MeSH Terms

After entering your first concept into the search box, you will be redirected to a page containing a list of relevant MeSH terms. Click the Scope icon next to a term to learn more about how and when the term should be used.

After reviewing the scope note for the term (in this case ascorbic acid is the MeSH term for vitamin C), review the subject heading to see where the term falls in the hierarchically arranged index tree. Always check to see if there are narrower terms below your term in the MeSH vocabulary tree. Do this by clicking on your selected term.
Exploding and Focusing Your Search

You have the option to Explode or Focus your search. Clicking the Explode box tells the database to retrieve your selected term and all narrower (related) terms listed below the MeSH vocabulary tree. Clicking the Focus box tells the database to retrieve only those citations in which your subject term is considered to be the primary focus of the article. Choosing “Ascorbic Acid” only will result in 33943 citations. Exploding “Ascorbic Acid” will result in 34105 citations (results will include “Ascorbic Acid”, and the narrower term listed below (Dehydroascorbic Acid).

Note: When in doubt, Explode. By doing this, you will not miss any information that may be important/relevant.

Combine Your Concepts

After matching each of your search terms to MeSH vocabulary, you may now combine them using Boolean operators. Simply select the searches you wish to combine from your Search History, located at the top of the page. You have the option to combine them using AND or OR.

Click on AND in order to retrieve results that contain both vitamin C AND common cold. Results are displayed on the right under the Search History.
Using Limits

Limits can be used to narrow the results of your search. Selecting Additional Limits below the search box display options to narrow your search down (i.e. English Language, Review articles, Humans, etc).

Understanding Your Results

You can view the results of your search by scrolling down to the bottom of the page. Each result contains: title, author(s), and journal information. *Medline is an index only; you will not find the full-text article unless you are searching Cochrane Reviews or the Open Access content via Ovid.*

The left hand side of the page gives you Search Information, such as: terms used in the search, how many results your search has retrieved, and ways for you to sort the results (i.e. by date).