Approaches to searching

1. Define your topic
   Is it too broad? Too specific? Too vague?
2. Separate your topic into concepts
   One, two or more
3. Consider synonyms or alternate spellings
4. Try to use unique not common terms
Approaches to searching (con’t)

• Single words may be too broad

• Use quotation marks for multiple word terms

• Boolean operators AND OR NOT usually are upper case

• Be cautious when using NOT
Boolean search strategy

- **Boolean** logic uses the operators AND, OR, and NOT to connect search terms when using catalogs, databases, or web searching.
- A simple search on: *handwashing* retrieves article citations containing that term.
- A simple search on: *handwashing AND cross infection* retrieves citations containing BOTH terms.
- **BOOLEAN OPERATOR SEARCH STATEMENT RETREIVES AND**
- handwashing
  - AND
  - cross infection
  - Retrievces citations with *BOTH* terms present
- **OR cross infection**
  - OR
  - nosocomial infection
  - OR
  - hospital infection
  - Retrives citations with *EITHER/ANY* of the terms present
- (OR is used to string synonyms together: remember, OR retrieves MORE!)
handwashing

AND

cross infection
• **AND, OR**
  handwashing

  **AND**

• (cross infection
  OR
  nosocomial infection
  OR
  hospital infection)

• Search sets may be combined. This search locates citations with the word *handwashing* AND (ANY one of the terms combined with OR)
handwashing

AND

cross infection
OR
nosocomial infection
OR
hospital infection
• AND, OR
  handwashing

AND
• (cross infection
  OR
  nosocomial infection
  OR
  hospital infection)

• AND
• Publication type: randomized controlled trial

• Retrieves citations with the word *handwashing* AND (ANY one of the terms combined with OR) AND limited to articles with the Publication type: randomized controlled trial. This is one example of using database Limits.
• **NOT**handwashing
• **NOT**
• masks
• Retrieves citations with the term *handwashing*, but omits records with the term *masks*
• (Caution: the NOT operator should be used sparingly and carefully as it may omit citations relevant to a search.
• *For example,* an article about handwashing that includes the word *masks* might be relevant to a search on handwashing.)
Starting Points


• [http://www.ehealthcarebot.com](http://www.ehealthcarebot.com)
Searching medical journals

- PUBMED

- NOVOSEEK
  http://www.novoseek.com
Search strategy tips for PubMed

1. Keep it simple

2. Identify main concepts
   a. Single term or “multiple terms”
   b. Boolean logic: AND, OR, NOT

3. What are “MESH” headings?

4. Should you use only MESH headings or consider adding text words?
Efficacy of handrubbing with alcohol based solution versus standard handwashing with antiseptic soap: randomised clinical trial

Girou E, Loveau S, Legrand P, Oppein F, Brun-Buisson C.

Infection Control Unit, Hôpital Henri Mondor, Assistance Publique-Hôpitaux de Paris, Créteil, France. emmanuelle.girou@hmn.ap-hop-paris.fr

OBJECTIVE: To compare the efficacy of handrubbing with an alcohol based solution versus conventional handwashing with antiseptic soap in red patient care. DESIGN: Randomised controlled trial during daily nursing sessions of 2 to 3 hours. SETTING: Three intensive care units in a French healthcare workers. INTERVENTIONS: Handrubbing with alcohol based solution (n=12) or handwashing with antiseptic soap (n=11) when hand care. Imprints taken of fingertips and palm of dominant hand before and after hand hygiene procedure. Bacterial counts quantified blindly. MAIN points hand contamination. RESULTS: With handrubbing the median percentage reduction in bacterial contamination was significantly higher than with handwashing the median difference in the percentage reduction of 2.6% (95% confidence interval 8% to 44%). The median duration of hand hygiene was 30 seconds. Routine patient care handrubbing with an alcohol based solution is significantly more efficient in reducing hand contamination than handwashing with alcohol based solution.

Publication Types: Clinical Trial
Multicenter Study
Randomized Controlled Trial
Research Support, Non-U.S. Gov't

MeSH Terms:
Alcohols/administration & dosage*
Anti-Infective Agents, Local/administration & dosage*
Attitude of Health Personnel
Bacteria/isolation & purification*
Colonies Count, Microbial
Cross Infection/prevention & control
Disinfectants
Hand/microbiology*
Handwashing/methods
Handwashing/standards*
Humans
Hygiene/standards
Intensive Care Units
Nursing Staff
Prospective Studies
Soaps*/chemistry

Here is a sample Medline record that meets all the criteria:
Handwashing AND (cross infection OR nosocomial infection OR hospital infection) AND publication type: randomized controlled trial
Novoseek may be easier than PubMed

Novoseek processes documents to allow more precise retrieval:

- Uses subcategories on the left to narrow results
- Suggests symptoms and treatments for a disease
- No need to worry about controlled vocabulary/subject headings
How to obtain a journal article

• Your local public library
  – Print copy of journal
  – Databases with full text

• In PubMed, use the “free text” filter

• PubMed Central

• GMU databases or Fenwick Library
Test Yourself

1. What are the symptoms of stroke?

2. What herb may treat BPH?

3. What are the risk factors for thyroid cancer?

4. What is the generic equivalent for Cardizem?

5. What is involved in hip replacement?