## Approaches to searching

1. Define your topic

Is it too broad? Too specific? Too vague?

- 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

- <u>Boolean</u> 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 STATEMENTRETRIEVES AND
- handwashing

#### AND

- cross infection
- Retrieves citations with BOTH terms present
- •

OR cross infection OR nosocomial infection OR hospital infection

• Retrieves citations with *EITHER/ANY* of the terms present

•

• (OR is used to string synonyms together: remember, OR retrieves MORE!)





• 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)



• 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**

- <u>http://davidrothman.net/consumer-health-and-patient-education-information</u>
- <u>http://www.ehealthcarebot.com</u>

Searching medical journals

• PUBMED

http://www.ncbi.nlm.nih.gov/pubmed/

• NOVOSEEK

http://www.novoseek.com

# Search strategy tips for PubMed

1.Keep it simple

2.Identify main conceptsa. 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?* 



- Comment in:
  - BMJ. 2003 Jan 4:326(7379):50.
  - BMJ. 2003 Jan 4;326(7379):50.
  - Evid Based Nurs. 2003 Apr;6(2):54-5.

#### Efficacy of handrubbing with alcohol based solution versus standard handwashing with antiseptic soap: randomised clinica

#### Girou E, Loyeau 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 of hand contamination. RESULTS: With handrubbing the median percentage reduction in bacterial contamination was significantly higher than wi a median difference in the percentage reduction of 26% (95% confidence interval 8% to 44%). The median duration of hand hygiene was 30 secon routine patient care handrubbing with an alcohol based solution is significantly more efficient in reducing hand contamination than handwashing with an alcohol based solution is significantly more efficient in reducing hand contamination than handwashing with antiseptic solution is significantly more efficient in reducing hand contamination than handwashing with an alcohol based solution is significantly more efficient in reducing hand contamination than handwashing with antipercentage reduction is significantly more efficient in reducing hand contamination than handwashing with antipercentage reduction of 26% (95% confidence interval 8% to 44%).

#### Publication Types: • Clinical Trial

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

McSH Terms:

- Alcohols/administration & dosage\*
- Anti-Infective Agents, Local/administration & dosage\*
- Attitude of Health Personnel
- Bacteria/isolation & purification\*
- Colony Count, Microbial
- Cross Infection/prevention & control
  Disinfectants
- Hand/microbiology\*
- Handwasning/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?