Finding and Evaluating Medical Information on the Internet

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Caveat Petitor
(Let the Seeker Beware)

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Objectives

- Learn to use the internet to search for and analyze appropriate answers to clinical questions in real time.
- Use the internet to find good quality patient information and handouts.
- Gain confidence in navigating the ever changing and expanding internet by using simple effective search and analysis rules.
Introduction

- 61% of American adults use the internet for information.
  - 63% of American adult internet users have searched for medical information about a disease.
  - = 93 million people
  - Half of these searchers use internet as their first resource.
  - Tend to use general internet search sites
    - Google, MSN search, Yahoo…
Introduction

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- So just how do we know that his information is any good?
Keeping safe in the Internet Jungle

- Learn the skills to assess website validity.
- Let someone else organize it for you.
- Stick to well worn paths
- Search using the right tools.
- Search and browse safely.
How to tell if information is good?

- National Network of Libraries of Medicine (NNLM) WebSite Evaluation Criteria
  - 42 questions
  - each worth +/- 1-3 points
    - Authority,
    - Currency,
    - Information,
    - Scope/Selection,
    - Audience,
    - Value,
    - Accuracy,
    - Advertising,
    - Navigation,
    - Speed,
    - Access

- Rated overall on scale
  - 0-25 = Poor
  - 26-50 = Weak
  - 51-60 = Average
  - 61-70 = Good
  - 71-80 = Excellent

Learn the skills to assess website validity.

- **Accurate?**
  - Does it appear to contain fact?
  - Does this information agree with the most recent you are aware of, or can you verify it?

- **Qualified?**
  - Are their qualifications apparent and verifiable?

- **Objective?**
  - Are there any hidden agendas such as a support for a commercial product?

- **Timely?**
  - When and how often is it updated?

- **Complete?**
  - Are any important facts or suggestions missing?

*Adapted from Health Resources on the Internet, National Network of Libraries of Medicine, [http://nnlm.gov/train/hri/](http://nnlm.gov/train/hri/) (accessed April 10, 2005)*
Learn the Skills to Assess Website Validity

Online resources-
National Library of Medicine

Let someone else organize it for you.

- **Meta-directories**
  - **Public**
    - Univ of Iowa, Hardin MD
      - [www.lib.uiowa.edu/hardin/md/](http://www.lib.uiowa.edu/hardin/md/)
  - **Sponsored**
    - Yahoo: [www.yahoo.com/health](http://www.yahoo.com/health)
    - Google: [directory.google.com/Top/Health/Medicine/](http://directory.google.com/Top/Health/Medicine/)
  - **Fee**
    - Medical Matrix: [www.medmatrix.org](http://www.medmatrix.org)
Stick to well worn paths

- Government sites
  - CDC: [www.cdc.gov](http://www.cdc.gov)
  - AHRQ: [www.ahrq.gov](http://www.ahrq.gov)

- NIH Institutes
Stick to well worn paths

- Professional Societies
  - American Academy of Family Physicians
    - www.aafp.org

- Trusted Organizations
  - Mayo Clinic
    - www.mayo.com

- “Open Source” Reference
  - Wikipedia: www.wikipedia.org
  - Dr. Wiki: www.askdrwiki.com
Search Using the Right Tools.

- Search Engines
  - Microsoft: [www.live.com](http://www.live.com) (free+sponsors)
    - Windows Live Search
  - Yahoo: [www.yahoo.com](http://www.yahoo.com) (free+sponsors)
- “Human powered” search
  - Mahalo: [www.mahalo.com](http://www.mahalo.com) (free+sponsors)
    - Goal is to “hand write the top 20,000 search terms”
Search Using the Right Tools.

- Google: [www.google.com](http://www.google.com) (free + sponsors)
  - How does it work?
  - Can you really ‘google’ clinical medicine?
Search and Browse Safely

- Malicious software
  - Viruses, Trojans, Spyware
- Use “safe” programs
  - OS: Keep it updated
  - Browsers: IE, Firefox, Opera
  - Security: Firewalls, Virus checker, spyware
Discussion

- Being listed at top of an internet search engine is no guarantee of quality.
- The seeker needs to determine the quality of internet information.
- Tools exist to help evaluate that quality.
  - They can be cumbersome and difficulty to apply at the point of care.
- Simple tools (heuristics) need be developed to allow physicians to estimate quality of internet information at the point of care.
- Patients need to be taught sources of good quality internet health information.
  - [www.familydoctor.org](http://www.familydoctor.org)
  - [www.medlineplus.gov](http://www.medlineplus.gov)
Bibliography

- Google, Google, Inc, [www.google.com](http://www.google.com)
References


- *Health Resources on the Internet*, National Network of Libraries of Medicine, [nnlm.gov/train/hri/](nnlm.gov/train/hri/)

- Institute of Medicine, *Crossing the Quality Chasm*, National Academy Press, Washington DC, 2001
References

- Pew Internet in American Life Project, www.pewinternet.org
  - Online Health Search 2006
  - Finder Answers Online in Sickness and in Health
  - Health Information Online
  - Prescription Drugs Online
References
