HID1 EBM:

Therapy

26 April 2018
Diagnosis Homework

Background questions

- PubMed is not a recommended source
  - Lack of theoretical context for many articles
  - Often very specialized
Diagnosis Homework

PICO & final search

P: Describe the patient/problem/population
   – Don’t assume the existence of a condition

I & C: Usually a little clearer than the homework

O: Don’t forget patient values
   – E.g. discomfort, aesthetics, lifestyle
Diagnosis Homework

Search

- Don’t forget synonyms, e.g. blood/serology
- Can search for:
  - Names of interventions
  - Metrics, e.g. sensitivity, diagnosis, NPV
- Remember to comment on:
  - PICO elements you didn’t include
  - Filters you used (why use them)
Diagnosis Homework

Search results

- Is your final search *really* your final search?
- Make sure your number of results is correct
Study type

- Why use “prospective, blind comparison to a gold standard”?
  - Observational vs interventional: not influencing the biological outcome (in theory)
  - Guaranteed comparable groups: no randomization issues
  - Comparing ”new” test to current “best” test
  - Blinding to avoid bias
Diagnosis Homework

Citation

• Make sure your cited paper actually appears in your search results
  – Or explain how you got to it
• You only need one
• Primary studies only
  – Not reviews, systematic reviews, guidelines that combine other primary studies
Diagnosis Homework

Patient information

• Good use of CRAAP test (or something similar)

• HonCode
Clinical Scenario

Azizah is a 25yro female with a history of granulomatosis with polyangiitis (GPA, formerly known as Wegener’s granulomatosis) is admitted to the hospital for management of new onset edema, fatigue and a pruritic rash on her legs. She has a creatinine of 2.5 and RBC casts on urine analysis. She is diagnosed with a GPA flare. Her doctor recommends treatment with rituximab as this is safer for preservation of her ovarian function. However, she is suspicious as she had previously received cyclophosphamide for renal flares and is not sure if rituximab is as good in achieving remission.
Background Questions

• AccessMedicine, ClinicalKey...
• Micromedex 2.0 (Red Book online)
  – Multiple drug databases combined
  – Drug interactions
  – Drug comparisons
  – Calculators
  – CareNotes® - patient information
• Can search for conditions as well as drugs
Clinical Question

PICO

**P** 25-yr old female with a history of (granulomatosis with polyangiitis [or GPA or Wegener’s]); new onset of edema, fatigue, pruritic rash, high creatinine (2.5mg/dL), RBC casts in urine

**I** Rituximab

**C** Cyclophosphamide

**O** Remission duration or relapse rate? Ovarian function?
Advanced PubMed Tools

Searching

• Clinical Queries
• MeSH
Clinical Queries

How CQ works

• Special filters tested to optimize recall of “scientifically strong studies”
• Selects for study types (doesn’t limit)
• Broad search
  – High sensitivity, low specificity
• Narrow search
  – Low sensitivity, high specificity
Clinical Queries

How to use CQ

1. Click link on PubMed home page (under PubMed Tools)
2. Enter keywords
3. Choose Category + Broad/Narrow
4. Look at results list – on topic?
5. Click See all link at bottom of results
6. Add Filters (e.g. age, sex)
MeSH

Medical Subject Headings

• “Controlled vocabulary” of biomedical terms

• E.g. Filters may be MeSH terms
  – Female/Male, Age
MeSH

Medical Subject Headings

• Useful for subjects that have many synonyms, e.g. drug trade names
• Useful to distinguish search terms with multiple meanings
• Not suitable for very new or rare subjects
MeSH

Medical Subject Headings

• Can have subheadings
  – Specify aspects of a subject

• Arranged hierarchically
  – Subject categories with more specific terms arranged beneath broader terms

• Can narrow search using “Major Topic”
MeSH

How to use MeSH

1. On PubMed home page, choose MeSH from drop-down menu beside search box
2. Search for MeSH terms
3. Select subheadings/Major heading
4. Add to Search Builder
5. Search PubMed
Homework

Patient information

• Find a patient information source

• Justify its use:
  – Quality, e.g. CRAAP test
  – Relevance to the patient
    • Topic
    • Language level
    • Format
Homework

CRAAP test

Currency    The timeliness of the information
Relevancy   How well the information you have found applies to your research or assignment
Authority   The credentials, qualifications, etc. of the author(s)
Accuracy    The reliability, truthfulness and correctness of the content
Purpose     The reason the information exists