Welcome!

Introductions

“Tour” of handouts
Information Empowerment

Information Seeking & Data Resources in the Research Context

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Finding information.....

What type of information are you looking for?

How do you search?

Where do you search?

Information challenges?

What is your “favourite” resource?
YOU ARE HERE
Information Chaos

Overload:
Too many data (e.g. written, verbal and nonverbal) for the clinician to organize, synthesize, draw conclusions from, or act

Underload:
necessary information is lacking.

Erroneous:
Information is incorrect.

Conflict:
Unable to determine which data correct

Scatter:
Information located in multiple places

Bottom Line

“What is your question??”

Matching information resource to information need.....
Identify your specific information needs as you conduct your research....
Part 1:

Going to the Source:

*Identifying and navigating scholarly literature*
1. Review of Evidence Based Practice in the Clinical Setting

Before we move to evidence based practice in the research cycle, let us review EBP in the clinical setting.

Consider …..

Application in the clinical setting and application in research setting
The 5 Step EBP Process

1. **ASK**: Formulate an answerable clinical question
2. **ACCESS**: Track down the best Evidence
3. **APPRAISE**: Appraise the evidence for its validity and usefulness
4. **APPLY**: Integrate the results with your clinical expertise and your patient values / local conditions
5. **ASSESS**: Evaluate the effectiveness of the process
Step 1: **ASK** (questions, PICO)
a focused (answerable) clinical question

**Background Questions**
- General questions - disorder
  - What is the disorder?
  - What causes it?
  - How does it manifest?
  - Treatment options?

- Information Resources
  - Books
  - Narrative reviews
    - General overview of a topic

**Foreground Questions**
- Specific questions - patient
  - Intervention / prevention
  - Etiology, risk
  - Diagnosis
  - Prognosis

- Information Resources
  - Journal articles
  - Synopses of articles
  - Systematic Reviews
    - Answer specific questions
Step 1: **ASK**

**PICO Format**

P = Patient, population or problem (*Who are the patients or populations? What is the disease?*)

I = Intervention (*What do you want to do with this patient – treat, diagnose, observe?*)

C = Comparison intervention (*What is the alternative to the intervention – placebo, different drug, nothing?*)

O = Outcome (*What are the relevant outcomes – morbidity, mortality, death, complications?*)
PICO exercise – The Case

“There has been a special clinical conference to discuss the use of macrodantin vs. bactrim in treating young teen-age girls with UTI. Bellevue Hospital recommends bactrim, Tisch Hospital recommends macrodantin. You must come up with an evidence-based recommendation for what the hospitals should use.”

PICO format

P = Patient, population or problem
P = adolescent girls

I = Intervention
I = macrodantin

C = Comparison intervention
C = bactrim

O = Outcome
O = efficacy of treatment

The Question

In adolescent girls, is macrodantin more effective than bactrim in treating UTI?

Step 2: **ACCESS** the best evidence through available resources

http://guides.lib.umich.edu/cirht
Step 3: **APPRAISE** the evidence for its validity and usefulness

- Appraisal involves validity, quality, precision of the study, and applicability

- General appraisal questions:
  - Are the results valid (measure question being asked)?
  - Are the results reliable (reproducible)?
  - What are the results?
  - Will the results help in the population of interest?
Step 3: **APPRAISE**

Critical Appraisal Tools

• Critical Appraisal Tools provide:
  – A structured approach for assessing quality and relevance
  – A consistent list of questions with fixed response options
  – Question lists tailored to specific types of research methodologies

• Use a tool appropriate to the type of study
Step 3: **APPRAISE**
Critical Appraisal Tools

Selected Tools
Critical Appraisal Skills Programme (CASP)

http://www.casp-uk.net/casp-tools-checklists
Step 3: **APPRAISE**
Critical Appraisal Tools

**Selected Tools**
Centre for Evidence-Based Medicine Critical Appraisal Worksheets

http://www.cebm.net/critical-appraisal/
Step 4: **APPLY** the evidence in the context of your expertise and patient values

Evidence based practice (EBP) is...

...the integration of best evidence from current research, patient preferences and values, and clinical expertise to clinical questions in a timely fashion.

Step 5: **ASSESS** your EBP process and identify potential improvements

The 5 Step EBP Process is a cycle:

- Keep knowledge and skills **current** (lifelong learning practices)
- Learn from your experiences to **save time** to find the **best** quality of information
2. The Research Cycle
The 5 Step EBP Process:

1. **ASK**: Formulate the research question
2. **ACCESS**: Develop your strategy and track down the best evidence
3. **APPRAISE**: Appraise the evidence for its validity and usefulness
4. **APPLY**: Integrate the results into your project/proposal
5. **ASSESS**: Evaluate the effectiveness of the process
Another way of looking at it....