

Evidence-Based Practice: a multidisciplinary perspective

**MDC Education Day
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AGENDA

1. What is Evidence-Based Practice?
2. How is it taught at JGH?
3. Support at JGH



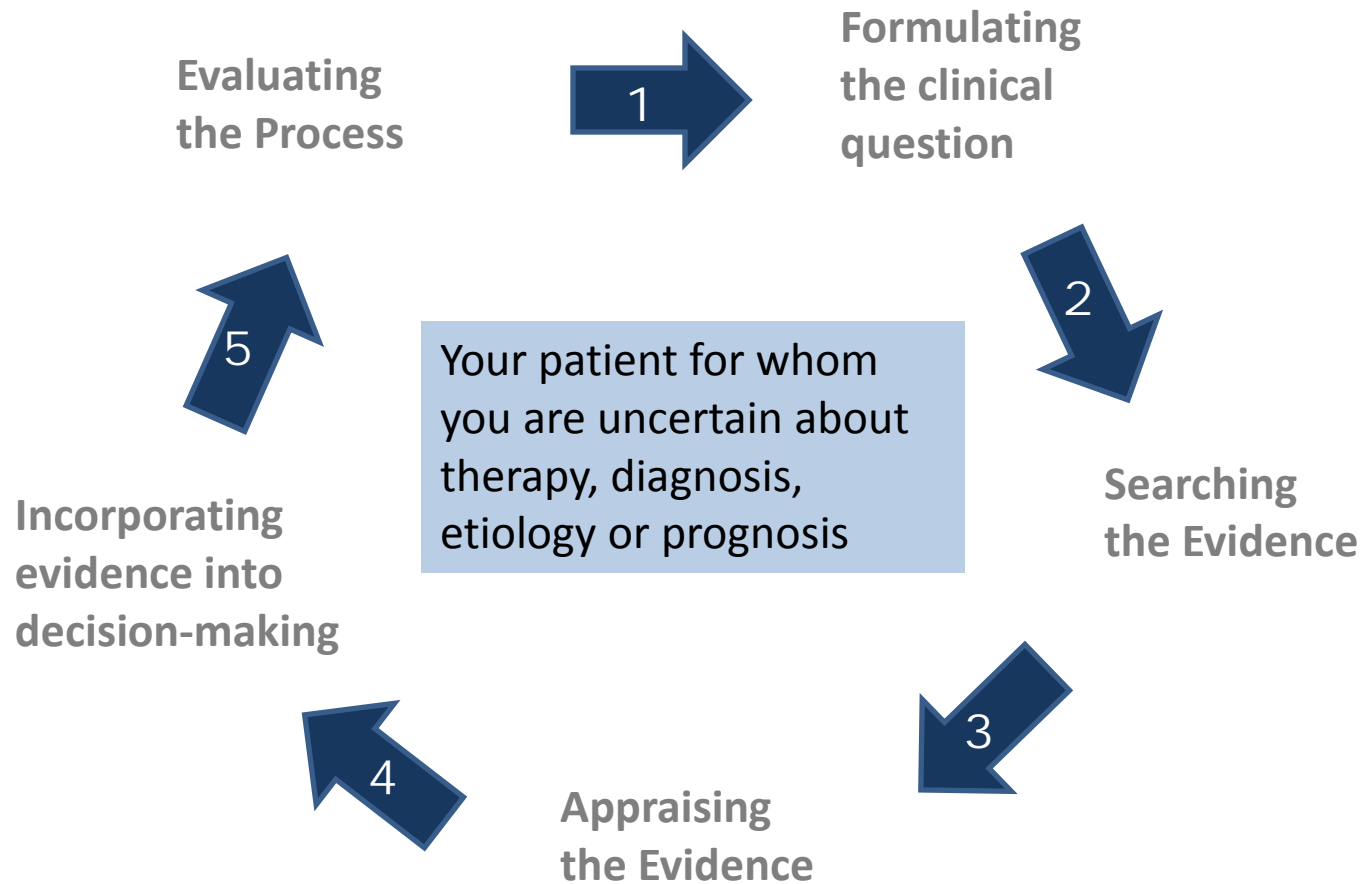
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WHAT IS EVIDENCE-BASED PRACTICE?

WHAT IS EVIDENCE-BASED MEDICINE/PRACTICE?

- Sackett and colleagues (1996) ... defined it as “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Kloda 2012, p. 71).
- A methodology divided into 5 iterative steps to answer clinical questions
- EBM is more than just searching for articles- these are also evidence:
 - Books (best for background questions)
 - Hospital guidelines/ Policies & Procedures
 - Clinical guidelines

EBM/P PROCESS: AN ITERATIVE METHODOLOGY



WHAT IS EVIDENCE-BASED MEDICINE/PRACTICE? CONT...

- **Clinical judgment is an integral part of the process and so are patient values**
- You are looking for the best evidence *available*
- Sometimes the answer is that there is no evidence (but at least you know for sure)
- Evidence-based practice uses the same methodology as EBM applied to disciplines other than medical i.e. allied health



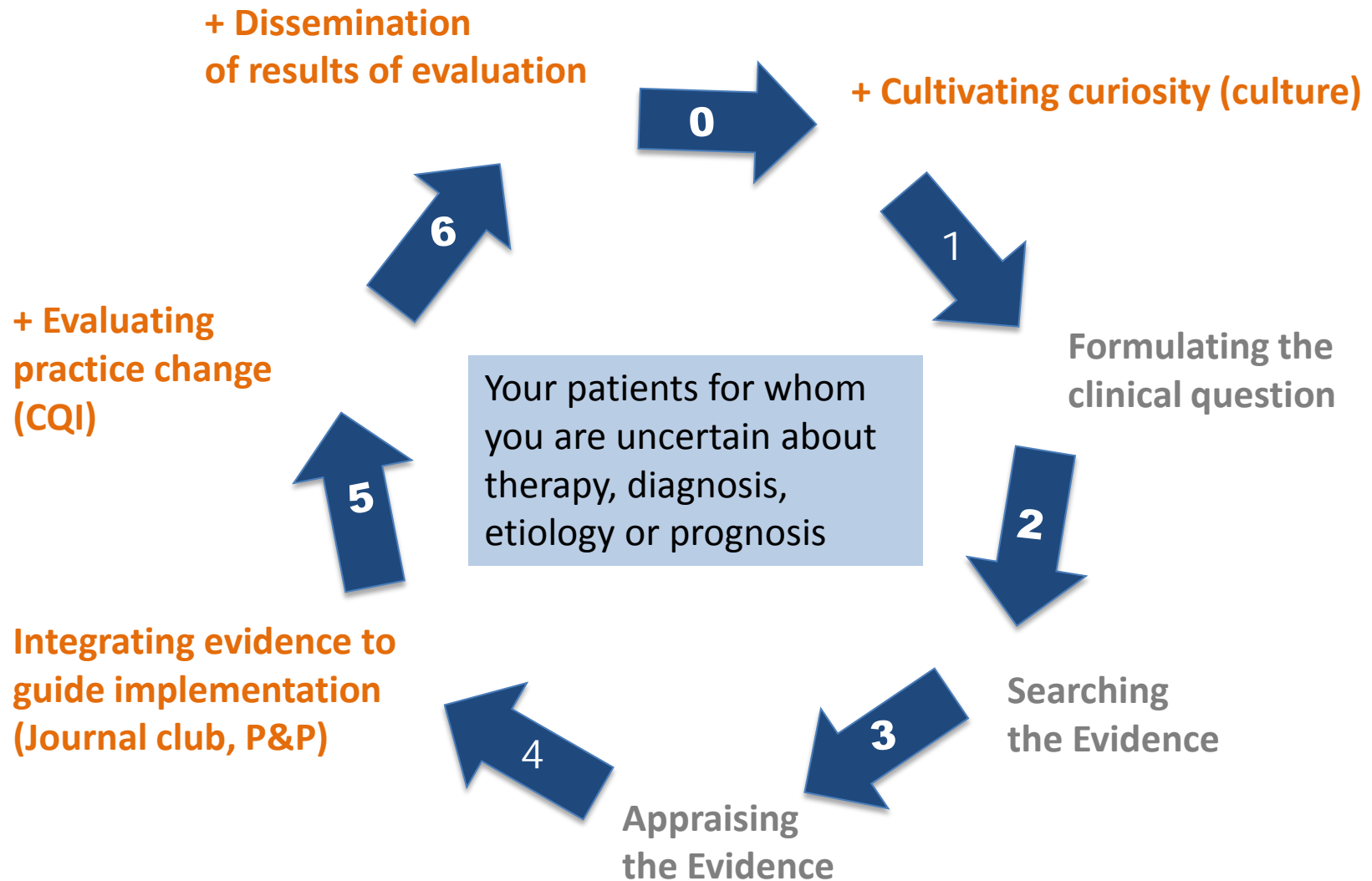
WHAT ARE THE LIMITATIONS?

- EBM was designed to best answer therapy questions in medical practice by individual clinicians
 - Not great for qualitative questions
- EBP is more inclusive of other types of questions/evidence types (qualitative, mixed methods)
- Both EBM and EBP focus on decisions being made re: individual patients
- Neither was designed for nursing practice- or any practice where the development and implementation of P&P's and CQI is a big part of the process

EVIDENCE-BASED NURSING PRACTICE IS EVOLVING TO SOLVE SOME OF THESE PROBLEMS

- Designed specifically for nurses but could be adapted to other specialties
- Addressing P&P and CQI
 - knowledge synthesis
 - implementation
 - change management
 - evaluation etc.
- CNS/nurse educators trained in EBNP as facilitators
- Providing a framework that has as its goal the measurable improvement of:
 - Quality & consistency of care
 - Patient outcomes
 - Cost containment

EBNP PROCESS: A METHODOLOGY + A FRAMEWORK

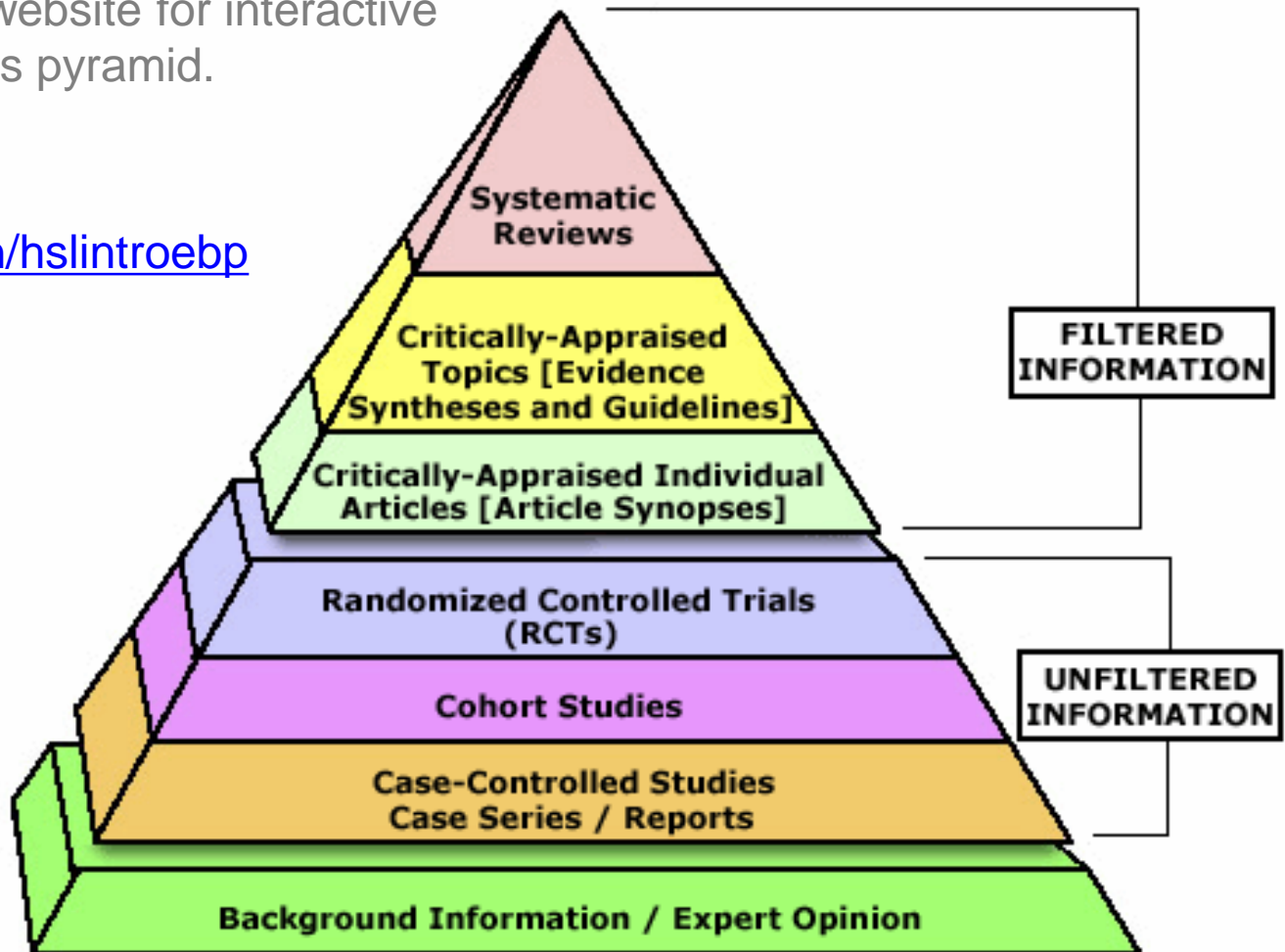


WHAT IS "THE EVIDENCE"?

WHAT IS THE EVIDENCE?

See course website for interactive version of this pyramid.

www.jgh.ca/en/hslintroebp



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Type of Question	Best Evidence
Diagnosis (test)	Quantitative Comparison to Gold Standard
Therapy (treatment, prevention)	Quantitative Systematic review of RCTs, RCT
Etiology/Harm	Quantitative Observational study: cohort or case control
Prognosis	Quantitative Observational study: cohort or case control
Economics	Quantitative Cost-effectiveness study
Meaning	Qualitative, mixed methods Case study, ethnography, grounded theory, phenomenologic approach



THERE ARE 2 TYPES OF RESOURCES

1. Clinical tools (aka point-of-care tools):

- Designed to answer clinical questions at point-of-care
- Quick and easy to search
- Try these first to answer clinical questions
- E.g. UpToDate

2. Biomedical databases:

- More powerful, complex searches
- Use these to answer practice questions (e.g. how to increase compliance to a fall prevention intervention)
- Use these to answer clinical questions- some have clinical question filters (you'll learn about this in the searching workshops)
- E.g. Cinahl

ASKING ANSWERABLE QUESTIONS

FORMULATING CLINICAL QUESTIONS

- Clinical scenarios (the story) can be complex and involve many issues surrounding patient care
- Often scenarios can be broken down into more than one question
- Each question can be formulated using PICO to help:
 - 1. identify key concepts,**
 - 2. Identify the type of question and based on this to**
 - 3. identify the type of evidence to best answer the question.**

What is a PICO?

P

Patient or Population

I

Intervention or exposure

C

Comparison

O

Outcome



FORMULATING AN ANSWERABLE QUESTION

P	In patients with...	Patient, Population
I	Does...	1) Therapy 2) Other types of intervention
C	Compared to...	1) Other therapy 2) Other intervention or no intervention 3) Standard of care or no comparison
O	Reduce, increase (patient oriented outcomes)	Positive or negative clinical outcome?



Example scenario and PICO

1. Patient information/scenario

Mr. Johnson is a 44 year old car mechanic with chronic back pain due to a herniated disk sustained 7 months ago. He has come to you for treatment. You are considering using TENS (transcutaneous electrical nerve stimulation) to alleviate the pain, but you wonder how it compares to massage in relieving pain.

2. Question

In adult males with chronic back pain is TENS as compared to massage more effective in relieving pain?

3. PICO elements

P: Adult male w/chronic back pain

I: TENS

C: Massage

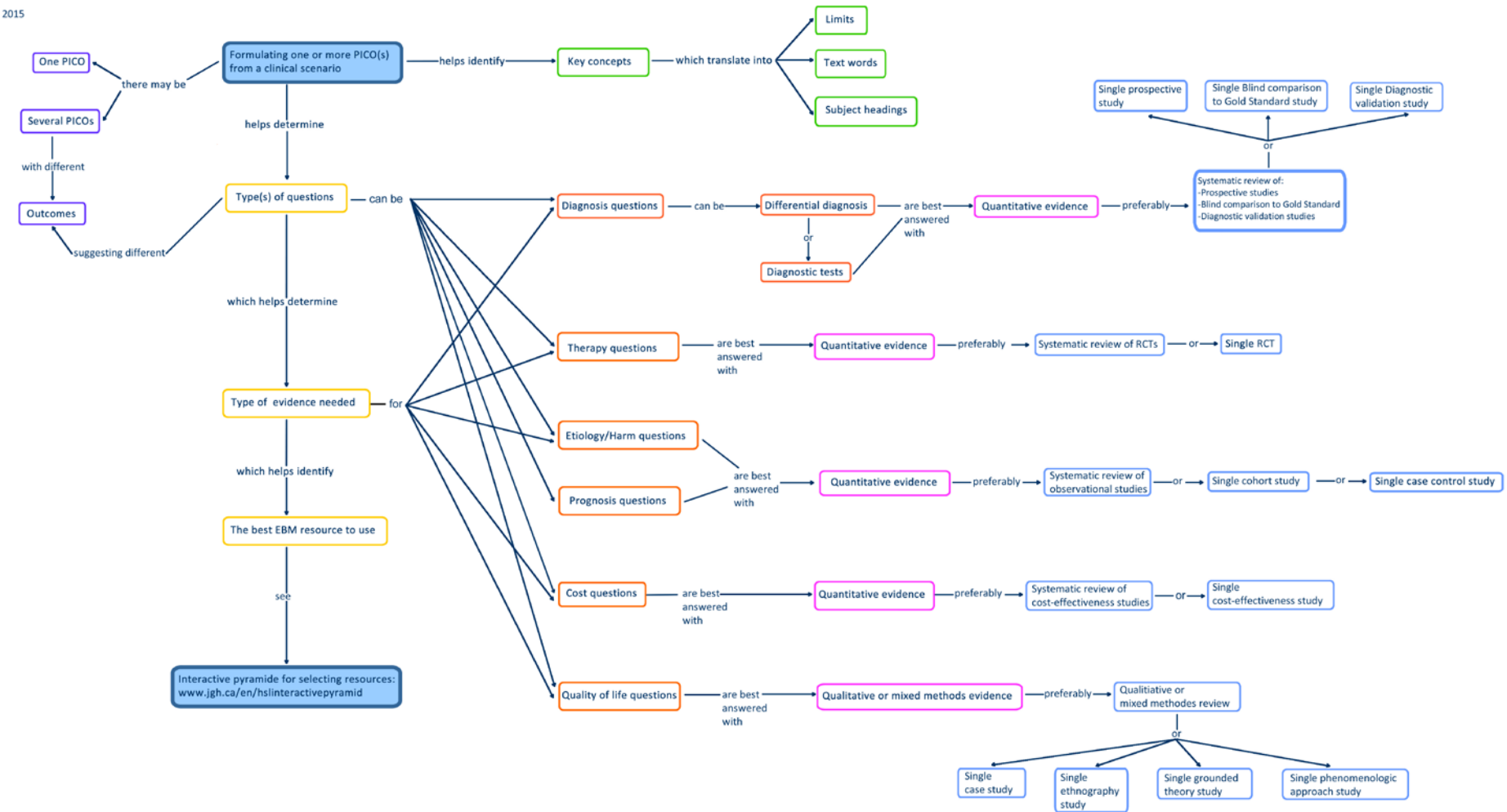
O: Effective pain relief

4. Type of question: Therapy

5. Best evidence: Systematic review of RCTs or RCT

6. Best Sources: Cinahl, PubMed, OTSeeker, TRIP Database

WHY PICO? PICO CONCEPT MAP



NOT ALL RESEARCH IS CREATED EQUAL

- Even studies at the top of the evidence pyramid (systematic reviews, RCTs) can be poorly done
 - Authors reach conclusions not supported by the data
 - Important information missing from the published study
 - Bias
- If well done, you still need to assess whether the study is relevant to your patients and your context

WHAT IS CRITICAL APPRAISAL?

- A systematic way of assessing the quality and relevance of a given research article.
- Focus is on the methodology section instead of abstract/conclusion.
- Different criteria are used for different study types.
 - Use worksheets

WHAT IS PRE-APPRAISED EVIDENCE?

- Some evidence has been appraised for you and assigned a “level of evidence” regardless of where it falls on the “pyramid”.
- Used to grade evidence quality by type of study.
- Sometimes classified by question type (Therapy, Diagnosis etc).
- Over 100 different grading scales in use¹!
- A few commonly used examples:
 - Centre for Evidence-Based Medicine, Oxford: 1a-5
 - GRADE: A-D combined with 1 or 2 (UpToDate uses this system)
 - SORT (Patient centered, used in family medicine since 2004): A-C

WHAT ARE THE LIMITATIONS CONT...?

- Many barriers for OTs [and other allied health professionals]:
 - ***lack of time,***
 - *a large caseload,*
 - ***limited searching skills,***
 - ***limited appraisal skills,***
 - ***difficulty accessing journals***
 - *and a perceived lack of evidence to support occupational therapy [insert your profession here] intervention.*



JGH EBM/P Curriculum

- Designed to address skills-related barriers
 - Workshops offered to your department designed to prepare you for participating in a journal club and for integrating evidence into your practice.
 - Tailored by specialty and focused on real life clinical practice using scenarios supplied by participants
 - Lecture & hands on + homework



JGH CURRICULUM CONT...

- Workshops to date:
 - Hematology residents- original pilot- EBM
 - Residents in psychology- EBM
 - Occupational therapy- EBP
 - IPAC nursing- EBNP
- Presented at CCME, MLA, CHLA
- Some aspects of the curriculum have been integrated into undergraduate medicine curriculum at McGill
- Course pages under “subject guides” on library website:
 - www.jgh.ca/en/hslintroebp
 - www.jgh.ca/en/hslebnp

WORKSHOPS

Topic	Time	Location
Introduction to EBP	1-2 hours	Conference room
Hands-on searching	2-4 hours	Computer lab
Critical appraisal	1-3 hours	Conference room
Total	4-9 hours	Each component can be split into several workshops
Journal clubs & Professional Practice, M&Ms, tumor board, development of P&P, CQI	ongoing	Support from the library is available as needed



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RESOURCES AT JGH

Librarian support

- Designed to address time and skills-related barriers
 - Instruction
 - One-on-one or group
 - Online subject guides
 - Journal clubs (attend, help prepare)
 - Clinical rounds, M&Ms, tumor board (attend and conduct searches as needed)
 - Search requests
 - To answer clinical questions
 - In support of P&P and CQI
 - Interlibrary loan (ILL)- getting you full-text of articles

THANK YOU!



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