Find it fast: 
Tools for evidence-based clinical practice

(EPA 7)

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Objectives

● Review the 4 As of evidence-based practice
● Distinguish between foreground and background questions, as well as filtered/unfiltered information
● Apply the PICO framework to answer clinical questions
● Identify core databases and specialty evidence-based resources to find appropriate answers to questions quickly
● Evaluate search results and apply to scenario at hand
Evidence-based clinical practice

- Clinical state & circumstances
- Patient preferences & actions
- Clinical expertise
- Research evidence

Haynes RB, ACPJC. 2002; PMID: 11874303
Ask: background questions

**What:** General knowledge of disease processes or clinical issues

**Where:** Textbooks like Greenfield, Schwartz, UpToDate, ClinicalKey

**Examples:**
- How is osmolality maintained?
- What are common symptoms of chronic pancreatitis?
Ask: foreground questions

**What:** More complex than background questions; address specific knowledge to inform clinical decisions and actions

**Where:** The biomedical literature

**Example:** Are colloids or crystalloids a better choice for fluid resuscitation of critically ill patients?
Ask: the clinical question

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Clinical scenario

A 53-year old woman with rheumatoid arthritis > 6 months complains of upset stomach, perhaps due to the NSAIDS she’s taking. You wonder if changing her medication to short-term low-dose corticosteroids instead of NSAIDS would help.
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ask ➔ acquire ➔ appraise ➔ apply
Acquire the evidence

- Unfiltered information
- Background information/Expert opinion
- Case control series/Case series/Case reports
- Cohort studies/Qualitative studies
- Randomized controlled trials
- Critically appraised topics
- Systematic Reviews
- Filtered information
Acquire the evidence: Yale resources

- Systematic Reviews
  - Cochrane Database of Systematic Reviews
    - PubMed -> Clinical Queries -> Systematic Reviews
  - DynaMed Plus
  - BMJ Updates
  - National Guidelines Clearinghouse

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- Randomized controlled trials
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- Original research found in MEDLINE and other databases (Scopus, Embase, PsycINFO, Web of Science)

- Harrison’s
- ACP Medicine
- UpToDate
- Other textbooks
ask → acquire → appraise → apply
EBP Resources - what makes them special?

- Explicit and preferably exhaustive search strategy
- Explicit criteria for inclusion of articles and data
- Explicit and preferably accepted appraisal criteria
- Inferences and recommendations based on highest level of evidence (and include citations)
- Revised and updated regularly
EBP Resources: In your pocket

- UCentral: Evidence-based Medicine Guidelines
- DynaMed Plus
- UpToDate
- PubMed for Handhelds
- Cochrane Library Online
Practice

In adults with rheumatoid arthritis, how do corticosteroids compare to NSAIDs with regards to treatment efficacy and lessening of stomach pain?

- Each group is assigned an application to use to try to find the answer to this question
- Finish early? Try an app you haven’t used before
Discussion

- Did you find an answer to the question?
- How easy was the application for you to navigate?
- What did you like? Dislike?
- If you used more than one, how did they compare?
Continued practice

MAP/BAH
Mrs. K, a 45-year-old librarian, has been admitted with widespread pain >3 months. Her PCP diagnosed fibromyalgia and began treatment with pregabalin but the medication caused dizziness and made her sleepy. Her pain symptoms have worsened recently and she finds it increasingly difficult to participate in some of her hobbies. She states that she wants to avoid taking another drug if at all possible because of the adverse effects. You wonder if there are other therapies that may help in reducing her pain.

WCH
A 10-year-old boy is accompanied to his parents to the pediatrician’s office with complaints of frequent headaches and decreased activity. The headaches have been severe enough to force him to miss school 3 days in the previous week. His mother says they tried Tylenol and Advil unsuccessfully. His past medical history is positive for similar episodes of headaches when he was 5 years old and his mother reports she has a similar history of headaches. She is adamant about her son not taking stronger painkillers or pills in general because of all of the news about opioid addiction and wants to know what other options will work.

SAP
Your patient is a 34-year-old who has undergone surgery to treat abdominal trauma sustained in a motor vehicle accident. The SICU nurse asks what your choice of fluid type is for resuscitation. Intent on practicing evidence based care, you search the literature to find the effect of using colloids versus crystalloids on mortality, the need for blood transfusion, and adverse effects.
More mobile applications

- MicroMedex
- VisualDx
- ClinicalKey
- Read by QxMD
- AccessMedicine
- Epocrates
- Calculate

Download and account instructions at:
bit.ly/cwml-apps
Thank you!

Slides and more available at: guides.library.yale.edu/ysmclerkships

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