

## "Integrating Evidence-based Practice into Your Curriculum."

APPD Workshop: **Friday, May 4**

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Web link: <http://www.columbia.edu/~mvp19/APPD/APPD.htm>

### RRC requirement:

#### I. RRC Requirement:

- a. "Faculty must document a resident's ability to access, appraise, and apply knowledge from the medical literature... In addition, the program must evaluate the competence of residents in performing an evidence-based exercise. This exercise may include, but is not limited to, a journal club presentation, or other structured exercise in which best evidence is applied to a focused clinical question. The evaluation should be based on predetermined criteria."

#### II. Introduction to Evidence-based Practice

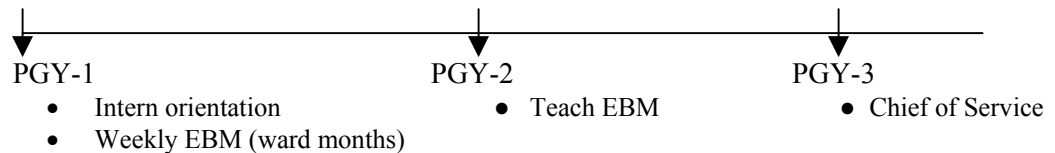
- a. Goal: To acquire skills to incorporate evidence, patient values, and clinical expertise in your clinical decision-making.

#### b. Components involving EBP:

- i. Identifying a problem or area of uncertainty
- ii. Asking a relevant, focused, clinically important question that is answerable
- iii. Selecting the most likely resources to search
- iv. Searching, and appraising the evidence found
- v. Assessing the clinical importance of the evidence
- vi. Assessing the clinical applicability of the evidence
- vii. Acting on and appropriately applying the evidence
- viii. Assessing the outcomes of your actions
- ix. Summarizing and storing records for future reference

#### III. Design & Implement Evidence-based Practice into Your Pediatric Curriculum

#### a. Overview:



- b. Time: Identify a time when majority of the residents could be freed up for 30-60 minutes.

#### i. Morning report

1. EX: Experienced faculty lead the sessions at the beginning of an academic year. Then the Chief residents take over. Trained librarians also give talks on search. We come up with a clinical question and an article relating to the topic. Residents and interns are asked to come up w/ a searchable question, where and how they would look for the information. Then they are paired up to answer various questions focusing on appraising the article. Finally, we discuss how they may apply this information in their patient care.
2. Advantages: ward residents and interns are mandated to attend, thus higher capture rate. Also, same ward interns and residents show up weekly for the 4-week block, ensuring continuity of learning.

3. Lessons learned: Residents do get interpreted by nursing calls regarding patient care. We have made an effort that senior residents will take the calls so that interns may learn without interruption.
- ii. Noon conference
    1. EX: In our first year, we held 4 noon conferences targeting various components of EBP.
    2. Advantages: Potentially capture more attendants in one setting. Will not need to train as many faculty.
    3. Lessons learned: Lack continuity of attendance. Residents arrive late and leave early. Difficult to cover all the intended materials. Difficult to get all residents involved due to larger size.
  - iii. Journal club
    1. Can potentially replace journal club with EBP.
  - iv. Clinical teaching round
    1. EX: In our pediatric ED, we spend 20-30 minutes addressing a management dilemma that arises while rotating residents work in our ED. Residents must come up their own searchable question, search the literature, appraise evidence found, and apply evidence into clinical decision making. During this teaching round, attending physicians working in the ED see patients on their own.
    2. Advantages: Allow trainees to see how to do EBP in clinical setting.
    3. Lessons learned: When the ED gets overwhelmingly busy, we do have to skip this teaching round.
- c. Place: Think of a place where residents could easily get to from their clinical responsibilities. Ideally, it should have a couple of computers with wireless internet access, projector, and a screen so that you may demonstrate to the group how to do an effective search.
- i. Conference room on the ward
    1. Advantages: It's easy for the residents to come.
  - ii. Computer room:
    1. Advantages: Have more computers for residents to gain hands-on experience w/ search.
    2. Lessons learned: The computer room we have is located at another building. Residents do show up late. And once they have to leave to take care of things on the ward, they will not come back.
  - iii. Mobile computers:
    1. Advantages: Able to have them set up in any rooms close to the ward as long as there's wireless access in the room.
    2. Lessons learned: Problems do arise. Spending more time trying to fix/set up the computers than teaching.
- d. Teacher(s): Seek someone who is enthusiastic and trained in evidence-based practice.
- i. Chairman and divisional directors can assist in the search of such teachers
  - ii. May want to send interested faculty and/or chief residents for training
    1. New York Academy of Medicine – usually offers EBM workshop in the Spring. [www.ebem.org](http://www.ebem.org)
    2. Duke University: Teaching and Leading EBM: A Workshop for Teachers and Champions of Evidence-Based Medicine; April 22-25, 2008 [www.mclibrary.duke.edu/training/courses/ebmworkshop](http://www.mclibrary.duke.edu/training/courses/ebmworkshop)
    3. McMaster University in Ontario, Canada - [www.cche.net/ebcp/info.asp](http://www.cche.net/ebcp/info.asp)
    4. Center of Evidence-based Medicine – Oxford. [www.cebm.net/courses.asp](http://www.cebm.net/courses.asp)

- 5. Website listing available courses:
      - <http://ebmlibrarian.wetpaint.com/page/EBM+Workshops>
    - iii. Use senior residents who have been trained to teach – 2<sup>nd</sup> year residents on electives are asked to teach a session during morning report.
    - iv. Train chief residents – We send our chief residents to EBM workshop.
  - e. Audience: You may want to target a small group of residents. It may be difficult to gather all 3 year of residents together.
    - i. Interns only
    - ii. Interns and residents rotating through required elective(s) or rotations
  - f. Curriculum: Interactive learning is preferred over didactic.
    - i. Example 1:
      - 1. Week 1: How to form a searchable question?
      - 2. Week 2: Where to search?
      - 3. Week 3: How to appraise therapeutic articles?
      - 4. Week 4: How to appraise diagnostic articles?
    - ii. Example 2:
      - 1. Week 1: How to appraise therapeutic articles?
      - 2. Week 2: How to appraise diagnostic articles?
      - 3. Week 3: How to appraise systematic reviews?
      - 4. Week 4: How to appraise clinical decision rules?
    - iii. Example 3:
      - 1. Incorporate EBP into residents' formal presentations (Chief of Service)
- IV. Evaluation Tools: Nothing specifically for pediatrics is out there.
- a. Examples:
    - i. Berlin
    - ii. University of Michigan
    - iii. Evaluation form completed by all members of the audience.
      - 1. Written summary by Program Director returned to each senior resident
- V. Career Development
- a. Writing peer review articles
    - i. Systematic reviews via Cochrane
    - ii. Systematic reviews or short reviews via the Annals of Emergency Medicine
  - b. Develop Assessment Tools
    - i. AAP Evidence-based medicine interest group
    - ii. New York Academy of Medicine –Evidence-based medicine steering committee
  - c. Develop curriculum to teach EBM most effectively
    - i. N.B. Need a good, validated assessment tool first