Course Objective

Material Covered: This elective will demonstrate the practice of evidence-based medicine within a clinical context. Faculty will model the practice of EBP in real-time and within the context of patient cases. The general goals of this elective are as follows:
- To help students develop advanced skills in EBP that they will utilize during residency and life-long to inform their care of patients using best available evidence.
- To model EBP in the clinical setting.
- To foster the computer and searching skills required to practice EBM successfully.

Skills Acquired: Searching the medical literature and associated databases; critical appraisal of the medical literature and sources of evidence; incorporation of evidence-based information/knowledge into patient care.

Overall Objectives:
- Apply EBP in the clinical setting.
- Critically appraise medical literature and assess the quality of sources of evidence.
- Describe the strengths and limitations of the evidence.
- Describe systematic reviews and discuss the quality of synthesized evidence.
- Perform advance searches of the medical literature.
- Obtain information/new knowledge.
- Incorporate new knowledge into clinical practice in the context of current knowledge.

Activities Of Elective

1. A hands-on skills laboratory in searching databases to be conducted by the course director in collaboration by the TMC library personnel. The current plans call for a series of 4 one hour sessions, each session devoted to the major databases.

2. An EBM consultative service that would be available to assist clinicians on the medicine service and as the course is expanded in subsequent years to all of the major clinical services. This consultative service would be designed specifically to enable the students on this elective to interrogate clinical problems in real time. Consults would be obtained ideally from the post-call team based on questions that arose during the initial work-up of admitted patients, accepted before noon and presented to the team in summary fashion by the student (with EBM faculty supervision) the following day. The consult would be obtained, the elective student would frame the question and propose a search, would meet with the EBP faculty prior to the search, conduct the search and meet with the faculty after morning report the following morning prior to making a 10-15 minute presentation of their findings to the consulting team, that morning.

The skills that they would develop through this activity would include
- identifying the question,
- identifying the appropriate data set,
- searching, finding and summarizing this relevant literature for the application to the clinical problem that generated the question.

An emphasis would be placed on synthesized data and speed of acquisition of high quality answers. This consult service would be supervised by the EBM faculty assigned that month, along with resident, graduate student preceptors.

3. The EBM students would be assigned to morning report (initially Medicine, but expanded in subsequent years to Pediatrics, Surgery, etc with recruitment of additional faculty) and would through the course of the week develop 3-4 clinical questions to evaluate for the evidence that they would research and present on Friday to the resident participants. The students would meet with the EBP faculty on Thursday PM to finalize their presentations. These presentations would emphasize a description of the processes used to obtain and synthesize the results and of the tests used to validate the literature cited. An overall summary of the clinical findings would be provided. Each presentation will be from 5-10 minutes with a target maximum of 30 minutes. This activity would therefore, emphasize equally the process of obtaining the results and the results themselves. The focus on the former would provide students and residents with an opportunity to model and learn new EBM skills.

4. The EBM Consultation Service participants would meet in seminar twice weekly to present to the group the results of their individual EBM efforts. Additionally, the clerkship student would meet for 2 hours weekly for a didactic session to explore systematically advanced skills of critical appraisal of all of the major types of medical studies/clinical questions.

5. Student assessment would be based on the EBM presentations to morning report and formal reports developed for the consultation service.
Number Of New Patients/Student/Week: N/A

Responsibilities Of Student For Assigned Patients:

- Does history/physical: No
- Who critiques:
- Follows patients, with appropriate notes as needed: No
- Who supervises:
- Does student see ambulatory patients: No

Procedures

<table>
<thead>
<tr>
<th>Observe</th>
<th>Perform</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Scheduled Duties of Student:

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-9</td>
<td>Morning report; Medicine</td>
<td>Morning report, Medicine</td>
<td>Morning report Medicine</td>
<td></td>
</tr>
<tr>
<td>9-9:30</td>
<td>Preparation for presentation of consults (10:00-10:30 on Monday only) with course faculty</td>
<td>Preparation for presentation of consults with course faculty</td>
<td>Preparation for presentation of consults with course faculty</td>
<td>Preparation for presentation of consults with course faculty</td>
</tr>
<tr>
<td>9:30-10:30</td>
<td>Presentation of Consult findings to ward teams</td>
<td>Presentation of Consult findings to ward teams</td>
<td>Presentation of Consult findings to ward teams</td>
<td>Presentation of Consult findings to ward teams</td>
</tr>
<tr>
<td>1:00-2:00</td>
<td>Library Searching tutorial with faculty</td>
<td></td>
<td>Presentation of reports to other EBP clerks and preparation for presentation to morning report</td>
<td></td>
</tr>
<tr>
<td>2:00-3:00</td>
<td>Didactic session of advanced critical appraisal</td>
<td></td>
<td>Didactic session of advanced critical appraisal</td>
<td></td>
</tr>
</tbody>
</table>

- Frequency of rounds on patients N/A
- Presents patients to preceptor or attending physician No
- Weekly schedule of required teaching sessions A.M. rounds 3-5 weekdays, 2 weekly lectures, 1 library searching session for a total of 4 weekly hours of didactics (see above schedule).

Describe Optional Rounds And Activities, If Any:
N/A

Other Required Activities:

- Reading/review of current literature Yes
- Writing or presenting a paper Yes

How Is Student Evaluated:

Who Evaluates Students:
Dr. Molony and faculty

Unique Features Of This Elective:
This new elective represents an innovative approach to teaching EBM to learners at multiple levels simultaneously. The proposed course will teach the skills of EBM relying principally on real-life clinical situations within a real, clinically-relevant, time frame.