A Longitudinal Evidenced Based Medicine Experience for Medical Students in the Clinical Years

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RATIONALE/NEED

It has been well established that the education for evidenced based medicine (EBM) is lacking in the Brody School of Medicine curriculum. Graduates going into residency need to have experience with understanding research and reading current developments in their respective fields. They need to rapidly be able to analyze new literature as well as conduct searches of the existing body of knowledge. Presently no formal mechanism exists to teach these skills.

Instructional analysis of the curriculum to find this gap in education has occurred informally during the last four years through discussion with the administration and pre-clinical faculty. Interviews with students rotating in Emergency Medicine and other clinical settings has confirmed their lack of formal education and confidence with evidence based medicine.

METHODS/DESCRIPTION

Augmentation of the medical school's curriculum to include formal evidence based medicine training could occur in a longitudinal fashion. While ideally there would be various lessons on the subject through the entire four years, this initial roll out focuses on the clinical portion of training in the M3/M4 experience. In this way, the addition does not require major retrofit of an already busy academic schedule.

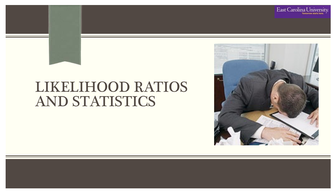
By using multiple small elements of teaching in the core clinical clerkships, concepts of EBM can be continually reinforced in context with the actual practice of medicine.

At the same time as educating our students, continual reinforcement of academic training such as EBM will help ensure our faculty remain progressive and up-to-date in their clinical practice.

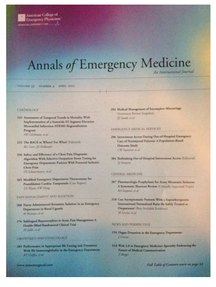
This implementation would initially take the form of three discrete elements which are further described.

ELEMENTS OF INSTRUCTION

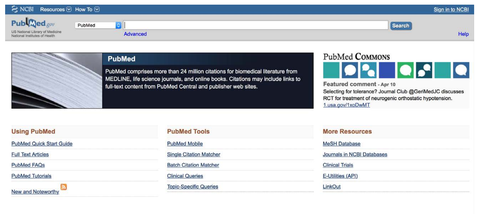
Module 1: Core Evidence Based Medicine Concepts / Clinical Appraisal Skills
Three separate slide-based lectures have been created that teach basic knowledge, terminology and skills necessary for understanding EBM. Delivery can occur in a traditional classroom setting or as an asynchronous online narrated presentation.



Module 2: Clerkship Specific Journal Club
During each core clinical rotation, the students of the cohort will meet with faculty to discuss articles deemed to be landmark practice defining literature. Using an evaluation worksheet, students will gain experience interpreting published works and discussing with faculty and peers. Their ability to critically appraise the literature will be evaluated with a standardized form.



Module 3: EBM Simulation / Research Exercise
Also during each core clinical rotation, the students will meet for a high-fidelity simulation exercise wherein they will assess a patient, gaining clinical experience in doing so. The simulation will steer the team into a clinical dilemma, at which point they will be tasked with searching the medical literature briefly and forming a decision based on results. Their ability to locate, evaluate, interpret, and apply evidence will be evaluated with a standardized form.



EVALUATION PLAN

Analysis of the educational method will be performed by structured evaluations of the student's ability to conduct clinical evidence appraisal during both journal club activities and more substantially during the simulation module. As these two elements would occur during all clinical clerkships, we would expect to see an increase in scores on the rubric as time progresses.

For both the journal club and simulation tasks, an evaluation system based on the ACGME Milestone Project has been created and is easily modified as the project is implemented.

IMPACT/LESSONS LEARNED

While not yet formally implemented as a paradigm in the medical school curriculum, the various elements of instruction have been used on resident and medical student cohorts with high degrees of satisfaction. Students in all levels of medical training have an awareness of the importance of EBM and actively seek education. While formal evaluation of our instruction is needed to ensure quality, most feel that any addition to the curriculum is warranted, desired, and vitally important.

ACKNOWLEDGEMENTS

This poster was prepared with financial support from the American Medical Association (AMA) as part of the Accelerating Change in Medical Education Initiative. The content reflects the views of the authors and does not necessarily represent the views of the AMA or other participants in this initiative. Gratitude is expressed to Kori Brewer PhD and Mohan Punja MD for use of presentation materials which were adapted to this project.