Tufts Information Mastery Change Agent Awards

Presented to Attendees at the Program, "Information Mastery: A Practical Approach to Practicing and Teaching Evidence-Based Medicine" November 18-20, 2010, Boston, MA

Awards are based on written responses submitted by program attendees in February-March 2011 to the question asked on the followup survey: "What changes or action steps have you taken since the program?" Responses were judged by program faculty and organizers.

First Place Prize: Nancy Adams, MLIS. Penn State Libraries
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"I work in the George T. Harrell Health Sciences Library, which serves the Penn State College of Medicine and the Milton S. Hershey Medical Center. As a result of my attendance at this workshop, I have reduced the overwhelming focus on MEDLINE/PubMed searching in my own instructional efforts for clinicians and medical students—without eliminating coverage of this important tool—now that I am aware that this population as a whole is better served by a focus on pre-filtered EBM information tools. I will present a training session for other library faculty and staff focusing on EBM resources so that they better understand these tools and increase marketing efforts to raise clinicians' and students' awareness of the EBM resources that we already have. In collaboration with a faculty member in the College of Medicine who also attended this course, I will redesign our library website to lead users to the evidence-based information tools that are most applicable for their information needs. I also plan to investigate purchase of additional EBM point-of-care resources, based on budgetary constraints. While we already have a good selection of resources, there are some others that I learned about at the training that would be very useful for our clinical faculty.

As coordinator of the library's efforts to be involved in the integration of EBM into the medical curriculum, I am currently working with three College of Medicine faculty members to plan improvements to their monthly EBM workshop in the family medicine clerkship and have been invited to present a summary of the information mastery concept to the associate deans of undergraduate medical education. These are directly related to my attendance at the information mastery workshop."

First Place Prize: Todd Felix, MD. Penn State Milton S. Hershey Medical Center tfelix@hmc.psu.edu

"Attendance at the Information Mastery Course has refined and improved Coffee Talks: A Novel Approach to Teaching Evidence Based Medicine and Higher Order Thinking. This mid-clerkship conference, with approximately 12 students/month and 3-4 faculty, has become a formal part of the Family Medicine clerkship at PennState University College of Medicine and will likely become a formal part of the 3rd year medical student curriculum

Our educational goals and objectives are twofold: One, to teach third year Family Medicine clerks the higher order thinking skills (HOTS) that are involved in clinical reasoning. Experienced clinicians are used as facilitators. Because they have no foreknowledge of the cases being presented, clinicians and students can participate together in the step-wise cognitive evaluation of the patient's complaint. Our objective is that the students be able to use HOTS while formulating and continually revising the differential diagnosis and treatment plan during the presentation of a medical case. This is a process that experienced clinicians use in all of their medical encounters.

Our second goal is the incorporation of Evidence-Based Medicine into this ongoing process. Our second objective, then, is that the students be able to demonstrate clinical reasoning when applying an EBM review of clinical questions that are developed during the case discussion presentation. Our approach was developed to enhance the cognitive training of the third year Family Medicine clerks in our College of Medicine (COM), both to improve their clinical problem solving and to introduce EBM into their daily practice of medicine. Training includes an introductory talk on Information Mastery; overview of patient oriented outcomes, constructing a PICO question, identifying and utilizing valid EBM resources, searching the literature, and finally translating this into quality patient care practices. Through discussion of case presentations in a systematic format led by family physicians, students are taught to formulate specific clinical questions that need to be answered in order to formulate a differential diagnosis and a treatment plan. Evidence-based data is reviewed by the students and faculty in real time in order to answer some of these questions. The relevance of this method is immediately apparent to the students as they learn to formulate their own questions and perform their own searches. Small group working teams with assigned faculty are then tasked to utilize EBM resources in answering the identified question(s). This is followed by a student-led discussion in the larger forum that enables the students to recognize the cognitive skills utilized daily by family physicians in the care of their patients.

Students at away site rotations submit a Powerpoint presentation with an answered (PICO) clinical question, presented via teleconference.

Our novel approach to teaching medical students is an attempt to prepare future physicians for the ever-expanding field of medicine. It is the students' approach to gathering data, clinical reasoning and evaluation/interpretation of data that will set the foundation for their careers. This unique forum highlights clinical experience, student collaboration, literature searching and professionalism. Our preliminary findings indicate a high interest in this method of teaching. We have also received informal feedback from students indicating high utilization of EBM resources during their clerkship and a

willingness to continue to utilize these tools in other clinical arenas. Additionally, this format has generated a high degree of interest, enthusiasm and participation by our faculty. The implications of successful 'coffee talks' are the possibility of a new and concrete teaching method for EBM and Information Mastery in the clinical years, as well as the possibility of broadening this approach to other specialties and to our residency program."

First Place Prize: Jonathan Ference, PharmD. Wilkes University
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"My colleagues and I have continued to develop a semester long course on information mastery (IM) theories and skills offered to 3rd year pharmacy students. The intent of this is to "pilot" topics and activities prior to integrating information mastery as a longitudinal theme within our curriculum. To that end, our working group has developed student terminal outcome statements specifically addressing information mastery and medical decision making which have been adopted by the faculty, administration and our curriculum committee. The major barrier to affecting this change was educating stakeholders as to the differences between the IM approach and the traditional "systematic approach to drug information" and "what we've always done."

In an effort to mitigate anxiety and confusion, the "IM Team" developed short faculty development workshops aimed at introducing faculty to the IM approach and highlighting specific examples of how this approach may be used to enhance didactic and experiential (we created and offered an experiential IM curriculum and toolbox of potential rotation activities) teaching. We found that providing faculty with "concrete" examples increased the likelihood of acceptance and ultimate approval of the curricular shift. At this time there is overwhelming support for this curricular transformation and the Department of Pharmacy Practice has adopted the IM approach as the preferred method for teaching students how to stay up to date with changes in the literature and making clinical decisions at the point of care.

We anticipate that a challenge may exist when students "raised" with information mastery leave campus and rotate with preceptors who may be unfamiliar with the concept or defer to the "traditional" approach of drug information. To combat this we have standardized the lecture content and workshop activities that take place in the Information Mastery elective and will be creating a series of online webcasts on each topic which will be made available to our preceptors as an in-kind means of saying "thank you" for teaching our students.

Members of the team have or will be presenting live Information Mastery workshops to other members of the health care team through regional (School of Pharmacy & Nursing-sponsored CE courses for local pharmacists, nurses, physicians, physician assistants and other allied health professionals; presentation at the Northeastern Pennsylvania Interprofessional Educational Coalition annual conference) and state-wide (Information Mastery workshops occurring at Pennsylvania Pharmacists Association conferences) programs.

We are more than happy to share our work and any insights with other interested parties. They may contact me for specific URL's to the webcasts when available or other

materials at jonathan.ference@wilkes.edu. All of this material is being made available to local physician residency programs and is therefore "profession-neutral" and applicable to all. At this time we feel that student and clinician response to this approach has been overwhelmingly positive, and we attribute our successes in no small part to our participation in the annual Information Mastery conference and the talents and passions of the conference faculty. Thank you!"

Honorable Mention: Valerie Azzopardi (Coppenrath), PharmD. Massachusetts College of Pharmacy and Health Sciences (MCPHS)
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"I have started training my pharmacy students to use the worksheets to evaluate primary lit, review articles, and guidelines for activities such as Journal Club, drug information consults, and chart reviews/pharmacotherapy recommendations. This has been very successful so far and has off-loaded some of my time.

Several of my MCPHS colleagues attended the conference. Our institution is now piloting several EBM resources and we have all been consistently and successfully encouraging our other colleagues and students to use them and provide feedback. Feedback from students has been very positive.

Unfortunately, I am not directly involved with coordination of the core (required) courses that cover these topics in our curriculum. However, I have incorporated these resources and concepts into my own experiential courses and into my facilitator roles in the core courses (so this reaches a small proportion of our students). Additionally, I believe my participation in the conference has allowed me to provide organized, constructive feedback to the coordinators of those core courses that mean well but are not doing what we want them to do. Finally, I am considering developing an "Information Mastery Workshop" elective course to complement the core curricula."

Honorable Mention: Karen Bulow, MLS. Texas Chiropractic College
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"I teach a 1-credit (14 hour) course that focuses mainly on medical information literacy searching skills. I am simplifying the course and trying to make it more practical and applicable to students. We do some evaluation of databases and websites in the context of EBM literature. I am also trying to get my students to focus more on the PICO model to ensure that the literature they find actually answers their question in a meaningful, practical way that will have an impact on the way they practice. Moreover, when I get to the end of my course this session, I will redirect my speech on how to keep up with the literature so that I can get them to focus on what will truly make an impact on their patients and practice. I will teach them not to spend their precious little time on articles that won't make an impact by getting them to ask some of the questions taught in your program."

Honorable Mention: Steven House, MD. U of Louisville/Glasgow Family Medicine shouse@tjsamson.org

“Since the course I have been using a point-of-care utility on my smartphone and iPad during my own patient visits as well as during my precepting sessions with residents to change or reinforce my practice, resident practice, or both (I've actually used riboflavin for migraine prophylaxis). Having a clear and concise source of clinical information that is easy to access quickly has improved my practice (both information and efficiency) and helps me to engage patients in their care—i.e., they can see that the information is more global than what is coming out of just my mouth; they can see that I'm trying to remain current (builds confidence); and they can see the data for themselves on my screen. I don't have any outcomes data yet (only 1 day of clinic per week), but I do believe that having the technology in hand to access up-to-date information has improved my relationships with patients and helped my patients to be more engaged in managing their own health rather than leaving it all up to me. The culture is changing. Thanks for the empowerment. My next step is to share the training for faculty development as well as resident and student education. More to come. Again, thanks.”

Honorable Mention: Rebecca Scott, PhD, PA-C. Northeastern University r.scott@neu.edu

“I revamped my entire evidence-based medicine component of Clinical Medicine, adding many more hands-on activities, including literature searching, evaluation of articles and practice guidelines in small groups and individually, calculating sensitivity/specificity/positive predictive value/negative predictive value using different prevalence rates. Next time this course rolls around, I will further tinker based on student feedback—they were generally positive about the hands on activities. Their search skills are still a little sketchy—somehow "Google" and "Wikipedia" keep showing up on their screens. Sigh. But I have plans for dealing with that!!”