Evidence Based Medicine in the Emergency Medicine Clerkship

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RATIONALE

- ✓ A standardized approach on how to best incorporate evidence based medicine (EBM) into the clinical clerkships does not exist
- ✓ At our institution, all mandatory clinical rotations are expected to incorporate an EBM exercise, however the approach is left up to the discretion of the clerkship leadership
- ✓ To provide a more uniform experience, we developed a standardized EBM assignment for all students completing their 4th year emergency medicine (EM) rotation at our institution

METHODS

- ✓ We developed 4 case vignettes focusing on the following; Case A - Cervical Spine injury, Case B - Syncope, Case C - Community Acquired Pneumonia, Case D - Pulmonary Embolism
- ✓ These were felt to be common clinical conditions, relevant to the practice of EM and possible to apply a validated clinical decision or clinical score to assist with clinical decision making to address the clinical question
- ✓ Case vignettes were standardized in their format and ended with a dichotomous lead in question focusing on a single decision point; the need for further work up or the need for hospital admission
- ✓ At the beginning of each rotation block, students were randomly assigned to one of the 4 cases and were responsible for submitting their assignment as a word document by the end of the 2nd Wednesday of the rotation
- ✓ The submission format was adopted from a previous publication (*Evid Based Med. 2007;12:66-68)*

RESULTS

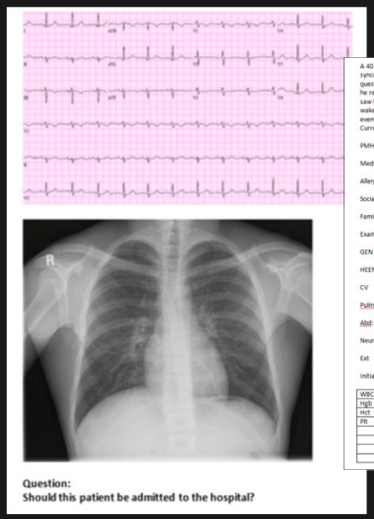
- ✓ 80 assignments were submitted (73 students, 7 campus students submitted a 2nd assignment)
- ✓ May – September 2017
- ✓ Post-assignment questionnaire: 63 responses, 5 students who submitted a 2nd assignment completed a 2nd questionnaire
- ✓ What did students think?: being assigned a case and clinical question: excellent 23 (37%), Very Good 27 (43%), Fair 1 (2%), Poor 1 (2%)
- ✓ Format preference: I would prefer to be assigned a case and clinical question: 53 (84%) versus develop own clinical question: 10 (16%)
- ✓ Format easy to follow?: Strongly Agree: 45 (71%), Agree 18 (29%)
- ✓ Were the cases relevant?: Very relevant 56 (92%), Somewhat relevant 5 (8%) ***
- ✓ Time commitment: researching, writing, posting: <1 hour 1 (2%), 1-2 hours 16 (25%), 2-3 hours 24 (38%), 3-4 hours 12 (19%), 4-5 9 (14%), >5 1 (2%)
- ✓ Did you learn something?: yes 59 (94%), no 4 (6%)
- ✓ Did you review other submissions?: Yes 30 (48%), No 33 (52%): and if so was this helpful: Yes 27 (93%)

Submission Format:

- ✓ Case summary: state the question you are addressing
- ✓ Search strategy
- ✓ Importance / relevance of study
- ✓ Study description
- ✓ Primary / secondary outcome measures
- ✓ How can results be applied to your case?
- ✓ Answer the clinical case

POTENTIAL IMPACT or LESSONS LEARNED:

- ✓ Assignment was viewed positively
- ✓ Easy to follow format
- ✓ Reasonable time commitment
- ✓ Clinically relevant assignment
- ✓ CDRs were appropriately applied
- ✓ Knowledge applied to patient care



Case Specific Differences

	Case A	Case B	Case C	Case D
# of students assigned to the case	22	21	18	19
Answers to the question	All recommended imaging	21 recommended discharge 1 recommended admission	All recommended discharge	All recommended further testing
Total # of articles cited	9	16	15	16
Most common article cited	Stiell IG, et al. The Canadian C-Spine rule versus the NEXUS Low-Risk Criteria in Patients with Trauma. NEJM. 2003; 349: 2510-2518.	Quinn, J. Prospective Validation of the San Francisco Syncope Rule to predict patients with serious outcomes. Ann Emerg Med. 2006; 47: 448-454.	Fine, MJ, et al. A prediction rule to identify low-risk patients with community acquired pneumonia. NEJM. 1997; 336: 243-250.	Crane S, et al. Retrospective Validation of the Pulmonary Embolism rule-out criteria rule in 'PE unlikely' patients with suspected pulmonary embolism. Eur J Emerg Med. 2016; epub ahead of print.