ACADEMIC RESIDENT

News and Information for Residents Interested in Academic Emergency Medicine

Edited by the SAEM GME Committee

PREPARING A MORBIDITY AND MORTALITY CONFERENCE

Debra Houry, MD, MPH
Denver Health Medical Center

Michael Gibbs, MD
Carolinas Medical Center

Morbidity and mortality (M&M) conferences are a mandated activity at virtually all EM residency programs, with 94% routinely holding M&M conferences as part of their academic curricula.[1] While these conferences vary immensely in structure, they share a common purpose: to track and discuss medical errors in an environment that facilitates learning, encourages accountability, and promotes leadership and academic development. This article serves as a guide for residents preparing an M&M conference.

Developing an M&M conference increases the retention of knowledge,[2] and may serve as a source of leadership and teaching skill development. Many programs have chief residents run M&M conferences, believing that they are ideally positioned to blend speaking and leadership skills with program knowledge and resident needs. Another option is to have individual residents present their cases. If properly mentored by faculty, this amplifies the individual learning experience, and adds to the collective appreciation of the life-long learning process. In either situation, a centralized management system will reduce duplication and assist in meeting curriculum needs. Coordination with risk management offices may also be helpful, particularly in terms of "peer review" protections.

Cases serve to review medical errors and as a forum for continuous quality improvement (CQI). Cases focusing on medical errors emphasize solutions to improve future care. If there was a bad outcome, it is important not to place blame on the individuals involved; in fact, 58% of programs present resident cases anonymously to enhance teaching and avoid shame.[1] Focusing on system problems that contribute to the medical error eliminates personal embarrassment. It is useful to discuss the many unique aspects of our practice environment that predispose to medical mistakes. These include multi-tasking, frequent interruptions during shifts,[3] inadequate communication and continuity during shift change, varying availability of diagnostic studies, patient volume, and over-reliance on consultants for decision-making and disposition.

Diagnostic or management dilemmas and decision-making provide optimal cases for M&M. While very unusual cases make ideal CPC cases, they often lack important features as good M&M cases. However, an unusual case may serve as a springboard to discuss broader issues associated with the patient's care. An infrequent presentation of a common condition allows discussion of the more common errors associated with that diagnosis. For example, a 5 year old with traumatic appendicitis leads to a discussion about pediatric appendicitis, as well as management and diagnosis of traumatic small bowel injuries. Similarly, a classic manifestation of an unusual disease may help reinforce clinical features of rare entities. An example might be a woman who presents with sudden, colicky, pelvic pain and is diagnosed with ovarian torsion.

Another approach to case selection is the "theme" conference. At one of the author's institutions, a pediatrics M&M conference occurs on a regular basis. Pediatric attending physicians and residents are invited to this conference and are encouraged to give their perspectives on management and diagnostic issues. A conference focusing on prehospital issues can actively involve EMS providers and address different treatment and management issues unique to their practice environment. Involving non-EM specialists in conferences applicable to their area of expertise provides unique learning perspectives and facilitates communication and understanding across specialties. Finally, inviting colleagues from community practice settings affords opportunities to discuss how care differs in a non-teaching setting. Community ED's often lack access to diagnostic testing and consultant availability that is taken for granted in the academic setting.

Usually a predetermined template allows two to three cases to be presented in an hour. Review all data about the case, including the presenting complaint, initial ED encounter, nursing notes, EMS trip sheet, as well as progress notes and discharge summary. Present only the extracted pertinent patient history and physical examination at the conference. Encourage participation from residents who saw the patient. Ideally the resident who initially treated the patient can present the history and physical and their initial differential and ED management. This allows a more accurate description of the patient's course that cannot be gleaned simply from the medical record. Be sure to provide advance notification to the involved physicians and assure that this does not violate anonymity rules for your program.

Consider creating a power point presentation, handouts, or slides to accompany your history and physical presentation. Just remember not to give key information or the diagnosis away! In general, do not distribute hand-outs until the end of the case. Build questions into the presentation that force audience participation. Provide enough information to generate a differential diagnosis. Ask the audience to commit to a course of action (by show of hands) at key junctures of the case (e.g. "how many of you would intubate the patient at this point?"). Request audience input regarding diagnostic studies and therapy deci-

sions. Initially show radiographs or ECGs without interpreting them. Later, you may go back to point out abnormalities after the audience has committed to a course of action using their own interpretations of those studies.

Teaching points should be brief and pertinent to emergency medicine. A one-page hand-out or synopsis is appropriate. Cover the epidemiology, differential diagnoses, and management. Cite any recent or "landmark" articles regarding the diagnosis or treatment and have copies of the article for attendees (distribution of key articles via pdf files electronically saves a lot of paper and copying time). Finally, many emergency departments now utilize digital cameras to record interesting physical findings, radiographs, and patient presentations. Presenting these images markedly enhances your presentation. Ensure compliance with institutional confidentiality rules and informed consent documentation when recording images.

Preparing an M&M conference provides an opportunity to discuss many of the most interesting and challenging cases seen in the ED. A well-organized M&M conference creates a lasting impression for the attendees. Most importantly, these conferences can ultimately improve the care of the patients who entrust us with their care.

References

1. Hobgood CD, John O, Swart GL. Emergency medicine errors: identification and educational utilization. Acad Emerg Med. 2000; 7: 1317-1320.
2. Collins J, Miller SS, Albanese MA. Resident learning and knowledge retention from resident-prepared chest radiology conferences. Acad Radiol. 1997; 4: 732-735.
3. Chisholm CD, Dornfeld AM, Nelson DR, et al. Work interrupted: a comparison of workplace interruptions in emergency departments and primary care offices. Ann Emerg Med. 2001; 38: 146-151.