

Morbidity and Mortality Conference in Obstetrics and Gynecology: A Tool for Addressing the 6 Core Competencies

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Abstract

Background Residency program directors are challenged to effectively teach and assess the Accreditation Council for Graduate Medical Education's (ACGME) 6 competencies. The purpose of this study was to characterize the morbidity and mortality (M&M) conference as a cost-effective and efficient approach for addressing the ACGME competencies through evaluation of resident participation and case diversity.

Methods In our modified M&M conference, senior residents submit a weekly list of cases to the conference proctors. The resident presents the case, including a critique of management, using the medical literature. The resident submits a case summary evaluating patient

care practices, integrating scientific evidence, and evaluating systemic barriers to care. Completed case summaries are distributed and archived for reference.

Results During a 3-year period, 30 residents presented 196 cases. Of these, 37 (19%) directly related to systems-based practice, 20 (10%) involved problems with inadequate communication, and 11 (6%) included issues of professionalism or ethics. All cases involved practice-based learning and medical knowledge.

Conclusions The M&M conference addresses the core competencies through resident participation as well as directed analysis of diverse cases.

Editor's Note: The online version of this article contains the two forms used in this study.

Introduction

The Accreditation Council for Graduate Medical Education (ACGME) has required accredited programs to conduct morbidity and mortality (M&M) conferences since 1983.¹ The M&M conferences continue to be an important component of resident education by providing a forum for discussion, analysis, and improvement of patient care. Traditional M&M conferences have focused on medical knowledge and on poor outcomes and the associated

medical liability and risk management. With their traditional focus on poor outcomes, M&M conferences often became an opportunity to assign blame with little focus on learning² and very little attention given to interpersonal interaction, communication, professionalism, and systems problems.

At the time that M&M conferences became a widespread part of resident training, accreditation of residency programs was based on the opportunity to provide residents with an adequate education rather than documentation of a successful outcome. In 1999, the ACGME implemented the Outcome Project, which required residency programs to document that all residents were adequately trained in each of the 6 core competencies (patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice).³ These competencies are important for independent practice following graduation. Models for M&M conferences that incorporate the 6 competencies have been proposed primarily in the internal medicine and surgery literature,^{4,5} but little has been published about obstetrics and gynecology training, a specialty that blends many aspects of the prior 2 fields.

Residency program directors have been tasked with developing and implementing novel approaches to ensure residents' learn the core competencies. Some program directors have reported this is challenging because of lack of financial resources and personnel.⁶ By modifying its

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traditional structure, the M&M conference provides a means for developing resident skill and knowledge for all 6 core competencies without a significant investment of resources. The purpose of this study is to characterize the M&M conference as a means of addressing the ACGME core competencies through evaluation of resident participation and case diversity.

Methods

The M&M Conference

In the Department of Obstetrics and Gynecology at the University of Alabama at Birmingham, a 1-hour M&M conference is held on a weekly to every-2-week basis. Senior residents on each of the clinical services submit a weekly list of potential cases to the conference moderators, using a standardized short form (online FIGURE 1); involved faculty members may submit cases for consideration as well. Two faculty members review the submitted cases and select 2 to 3 cases for presentation and distribute them to residents and faculty in the department 48 hours before the conference. A member of the faculty serves as conference moderator.

The resident presents succinct details of the case, including pertinent history, clinical examination findings, and laboratory and radiographic data. With support from the attending physician of record, the resident outlines the plan of evaluation and treatment using specific, supportive evidence from the medical literature. Throughout each presentation, the moderator involves the residents and faculty attending the conference by asking them questions on a variety of issues surrounding the case. This interactive format encourages collegial and professional discussion, with a focus on educational issues. The brevity of the presentation allows for in-depth discussion of the topic while maximizing the diversity and number of cases presented.

Following the M&M conference, the resident submits a long form (online FIGURE 2) that summarizes the clinical scenario, details the patient care practices, provides scientific evidence to either support or refute treatment decisions, and identifies systemic or procedural policies contributing to the situation. In addition, the long form provides an opportunity to review basic medical knowledge surrounding the topic. The resident also outlines an assessment of practice-based learning and systems-based practice for the specific case. Action items, for consideration by the residency program director and/or chairman of the department, are also documented. Lastly, references for future reading are provided at the conclusion of the form. Once the long form is completed, all identifying data on the patient and on the presenting resident are removed. With the permission of risk management and a legal disclaimer, the completed long forms are compiled and electronically distributed quarterly to all residents and faculty within the department through a password-protected website and

electronically archived. All residents who presented cases are required to maintain a hard copy of the long forms in their learning portfolios as documentation of their participation in the M&M conference. The case information provided on the long forms is used to develop test questions for the annual mock oral examination administered to second- through fourth-year residents.

The authors applied for Institutional Review Board approval, and after review of our submission, our institution's Institutional Review Board determined that it was not necessary.

Results

During a 3-year period, 196 cases were presented at the M&M conferences by 30 residents, comprising 21 senior-level residents (70%; postgraduate year 3 [PGY-3] and PGY-4 residents) and 9 junior-level residents (30%; PGY-2). The PGY-4 residents ($n = 14$) presented a total of 124 cases (mean per resident, 5; range, 3–11), the PGY-3 residents presented 63 cases (mean, 3; range, 1–7), and the PGY-2 residents presented 9 cases (mean, 1; range, 0–2). Eighty-seven cases were obstetric (44%), including 36 antepartum cases, 33 intrapartum cases, and 17 postpartum cases. Three cases of fetal/neonatal death were also presented. The remaining 109 cases were distributed as follows: 60 gynecologic oncology (31%), 33 benign gynecology (17%), 10 reproductive-endocrinology (5%), and 6 multidisciplinary (3%). Thirty-seven cases (19%) directly related to systems-based practice. Twenty cases (10%) involved problems with inadequate communication between health care professionals and patients or their families, whereas 11 cases (6%) included issues of professionalism or ethics. All cases contained practice-based learning issues and provided opportunity to increase medical knowledge. In general, each case involved the examination of clinical care with the intent of improving overall patient care by applying the 6 core competencies.

Discussion

The M&M conference functions as a nonthreatening environment focused on education in the 6 core competencies, allowing the resident to receive feedback from others in an attempt to improve patient outcomes while simultaneously participating in the education of fellow residents.

Patient Care and Medical Knowledge

The M&M conference addresses the competencies of patient care and medical knowledge. In the proposed format, the conference moderators review patient care practices, in addition to the resident, on a consistent basis and provide useful feedback to the resident regarding each case. When an unsatisfactory outcome is encountered, the M&M conference serves as a platform that allows critical evaluation of the clinical situation. Likewise, medical

knowledge is addressed by the structured process of the M&M conference. This second core competency mandates, “residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care.”⁷⁷ The presenting residents fulfill these requirements as they prepare for conference, and other residents and faculty independently satisfy this requirement as they prepare to participate in the discussion. Inclusion of M&M case material on the mock oral exam reinforces the medical knowledge provided by the conference.

Moderators are responsible for conducting discussion collegially and professionally, with a focus on systemic errors. This approach supports the residents’ development of interpersonal and communication skills by providing them with structured opportunities to engage in the effective exchange of information with other health care professionals.

Interpersonal and Communication Skills and Professionalism

Conflict may arise between consulting services regarding how best to manage a patient. This is especially applicable in obstetrics where physicians must consider the health of both mother and fetus. When this situation arises in M&M conference, participants review not only the scientific support for each view but also ensure that the physicians involved maintain their professional conduct. Consulting services, including neonatology, radiology, anesthesiology, and general surgery, have been invited to attend the M&M conference in an effort to facilitate better discussion. However, because of significant scheduling conflicts, their participation has been largely unsuccessful. Nevertheless, these cases provide an outstanding opportunity to examine and discuss the importance of professional behavior and mutual respect between medical services. By broadening the scope of cases presented at the M&M conference, and through focused structuring, residents receive considerable exposure to, and training in, the development of effective interpersonal and communication skills, as well as professionalism.

Practice-Based Learning and Improvement

Practice-based learning and improvement requires residents to, “demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.”⁷⁷ Residents are required to critically evaluate all of their cases in the weekly short form, identifying those with improvement potential. Residents receive guidance and feedback from the conference moderators regarding the types of cases appropriate for submission. In cases selected for presentation, residents are required to reflect on and locate, appraise, and assimilate relevant medical evidence into their

evaluation and provision of practice. The long form outlines a structured record of the case, discussion, and learning points, as well as relevant references from the medical literature, providing a meaningful way to document resident participation in the process of practice-based learning and improvement.

Systems-Based Practice

Systems-based practice, often more difficult to address than the other competencies, is defined as, “an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.”⁷⁷ The resident should identify what features of the health care system (eg, access to appropriate clinic facilities or translation services or department policies and procedures) at large contributed to the outcome of interest. The M&M conference addresses this competency by encouraging residents to consider systemic factors that contributed to the case outcome and to note them on the long form to ensure long-term follow-up. This practice has improved patient care by identifying and correcting limitations in the health care system. As an example, case discussion during the M&M conference revealed that an instance of ectopic pregnancy with an unfavorable outcome may have been different if residents at the hospital had access to the laboratory results obtained in the outpatient reproductive endocrinology and infertility clinic. As a direct result of this case, department administration integrated the clinic and hospital laboratory reporting systems to prevent further difficulties. Another example of a systems-based practice improvement due to M&M conference involved missed abortions diagnosed in the obstetric complications clinic. Historically, the obstetric clinic was not equipped to handle preoperative preparations for surgical management of first trimester miscarriages. Instead, the patients were counseled in obstetric clinic and referred to the resident gynecology clinic for further management, resulting in significant discontinuity of care. To resolve this problem, residents in obstetric complications clinic were able to schedule dilation and curettage for patients directly, rather than having to refer to gynecology clinic.

Evaluation

Documenting quantitative outcomes from the M&M conference is difficult; however, qualitative success can be assessed via resident evaluations of the activity. Because the content of the M&M conference cannot be predicted, designing a test for use in pretest and posttest evaluations of resident knowledge would be difficult. As previously mentioned, the mock oral examinations administered to residents each spring are used to evaluate information covered in the M&M conference from the preceding year. In this way, resident knowledge directly resulting from the M&M conference can be evaluated and documented on an

individual basis. Qualitatively speaking, the residents routinely report positive evaluations of the M&M conference with comments, such as “My favorite series is still M&M—love the set up” and “I really enjoy the style in which M&M is conducted. Thus far, it has been a great environment for residents to learn in and to think critically about patient care decisions” These testaments to success, in addition to the changes in health system policies that have resulted from M&M, demonstrate the value of this M&M conference format as a tool to successfully address the ACGME’s 6 core competencies.

Conclusion

The Outcome Project has posed new challenges to residency programs across specialties, including a reported lack of the necessary resources and personnel to adequately implement the new requirements. However, it may be more effective to modify existing educational opportunities, like the M&M conference, so that they address the ACGME core competencies, rather than developing all new education

experiences. When restructured by (1) requiring explicit resident preparation, and (2) facilitating faculty and resident discussions with a deliberate focus and considerable case diversity, this conference can serve as an educational tool to address all 6 core competencies of the ACGME.

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