Primary Care Morbidity and Mortality Conference: New Use of an Old Process

Robert C. Goldszer, MD, MBA, Eve Rittenberg, MD, Tejal K. Gandhi, MD, Laurie Katzman, MD, Susan Sadoughi, MD, Kathy Bertone, and James S. Winshall, MD

Abstract

- **Objective:** To describe the development and implementation of and early experience with a primary care morbidity and mortality conference.
- **Methods:** A steering committee was formed to define the specifics of the program. Conferences are held 6 times per year and last approximately 1 hour. Participants are eligible for continuing education credits. At the conference, one of the hospital’s 12 primary care practices is responsible for presenting a case in which an error or near miss occurred. Responsibility for presenting the case and leading the discussion rotates among the 12 practices. A specialist is invited to comment on the case, and participants discuss what could have gone better and make suggestions for error prevention. Recommendations for improvement based on participants’ discussion are developed and circulated, and feedback is obtained. All primary care clinicians are notified of implemented changes.
- **Results:** The first conference was held in June 2005 and resulted in new guidelines for the care of patients following bariatric surgery. Additional recommendations have been developed and implemented. Participants find the discussions informative and educational.
- **Conclusion:** The primary care morbidity and mortality conference is a useful tool for improving the quality of care for primary care patients.

The need to continuously improve the quality of health care, both in the inpatient and ambulatory settings, is well known [1,2]. One focus of attention has been reducing medical errors. Identification of errors and processes needing improvement can be challenging in the primary care setting, as most practices do not have safety reporting systems or mechanisms for physicians to discuss errors and near misses with each other. One method of addressing adverse events and errors with the goal of improving patient care is the morbidity and mortality conference (MMC) [3,4]. This process has been used in the inpatient setting for many years, growing from historical roots in departments of surgery and anesthesia [5]. Currently, residency training programs are required to sponsor MMCs or clinical improvement conferences focusing on adverse clinical events, including discussion of how things could have been handled better [6].

The modern MMC has had limited examination. Orlander et al [5] found that many internal medicine programs have an MMC, but the processes and outcomes of the conferences are variable. In a 2002 article, Orlander and colleagues proposed guidelines for conducting an MMC, specifying that an MMC should “identify events resulting in adverse patient outcomes, foster discussion of adverse events, identify and disseminate information and insights about patient care that are drawn from experience, reinforce accountability for providing high-quality care, and create a forum in which physicians acknowledge and address reasons for mistakes [7].”

We believed that the opportunity existed to adapt the MMC to primary care. To meet goals of continuously improving quality of care and patient safety and providing education for our primary care physicians, we began a primary care, ambulatory MMC. We felt that such an MMC could be successful if real cases were presented in a timely manner, if there was honest, supportive discussion, and if the process led to real improvements. Conferences were not likely to be successful if the discussions were punitive and blaming and participants felt that it was too difficult to make changes to improve [7]. This paper describes our program and outcomes of the conferences.

**Program Beginnings**

The director of primary care at Brigham and Women’s Hospital, who is responsible for quality improvement, patient satisfaction, and the financial performance of our 12 primary care sites, conceived the idea of holding MMCs to review a specific ambulatory case in which an adverse event occurred. The intent of the conference was to learn about errors and

From the Brigham and Women’s Hospital, Boston, MA.
error prevention and to develop improved and standardized care systems. The director discussed the idea with some primary care physicians and hospital leaders and received positive feedback. A steering committee made up of primary care physicians and practice administrators was convened to define the specifics of the program. Approval was granted for participants to earn continuing education credits in the risk management category. The conference was initially publicized via an e-mail to all physicians and office managers.

Conference Format
The conferences are held 6 times per year in the morning before clinical office hours at either the hospital or 1 of our off-campus practice sites. One practice is responsible for selecting a recent case and presenting it. The cases are selected based on the occurrence of a significant medical error or near miss, the case’s educational value, and perceived ability to develop an improvement system to address it. An additional selection criterion is that the cases vary and are somewhat generalizable (ie, so any improvement systems developed are likely to be able to be used across all sites). The responsibility for the case selection and presentation rotates among the 12 practices. A specialist is selected by the practice to comment on the case and provide analysis and education. Approximately 30 primary care physicians attend the 1-hour conferences.

At the start of the conference, the director of primary care emphasizes that the conference is not about placing blame or finger pointing but rather about determining how to improve systems. A representative of the practice presents the patient history and examination and initial laboratory testing. The attending physician audience discusses their impression and makes suggestions for further tests or treatments. After the initial phase of the patient’s course is discussed, the presenter discusses the next phases of evaluation, with results and treatments. This is followed by comments from the expert discussant. After the case is fully presented with all findings and diagnosis, the primary care physician presenter leads discussion from the audience. For about 30 minutes, participants discuss what could have gone better and offer specific ideas for error prevention. Minutes are taken to record the ideas generated for improvement.

After the conference, the director of primary care develops recommendations for care improvement based on the conference proceedings, which are circulated to the steering committee for comment and editing. These recommendations are based on the participants’ discussion and are focused on ways to improve care for the patients in our practices. Once agreed on, the recommendations are circulated to clinical specialists for input and approval. We want to ensure that the recommendations are consistent with current guidelines or best practices and that both primary care and specialty physicians are on-board with the changes so that they are implemented by all members of our patient care team. Changes to our computer system that are needed for implementation are the responsibility of the director of primary care. All primary care clinicians are notified by e-mail of the implemented changes.

Overview of Recent Cases
Our first conference, held in June 2005, focused on the case of a woman who developed complications after bariatric surgery performed at a hospital outside our health care system. The patient made only rare visits to her primary care physician before surgery and only once afterward. Over the 6 months following her surgery, the patient presented to several hospital emergency departments with complaints of abdominal pain, nausea, and vomiting and was found to have hypokalemia. The patient did not see her primary physician after the emergency department visits, and there was no communication from the surgeon to the primary physician. The patient died of causes related to electrolyte imbalance and dehydration at 6 months’ postsurgery. Discussants remarked on the need for more frequent and specific communication between the specialists and the primary physician, with test and treatment results available to all clinicians involved in the patient’s care. The discussants felt that the surgical team had not fulfilled their responsibility for follow-up care. Based on this case, we developed guidelines for follow-up care for postbariatric surgery patients and communication between primary care and surgeons. These guidelines were approved by our surgical team and circulated to all primary care physicians (Table 1).

The second case presented was that of a middle-aged man with rheumatoid arthritis and prior lung disease. Because he was on an immune-modulating medication for his rheumatoid arthritis, the patient had been screened (and tested negative) for tuberculosis (TB) by his primary physician prior to drug initiation. The patient developed progressive pulmonary complications and was hospitalized with dyspnea and pulmonary infiltrates. The treating clinicians checked for the patient’s TB status, but the test had not been recorded in the medical record. Thus, the patient was treated with multiple medications, including anti-TB therapy. The discussants focused on the potential for harm from inadequate documentation and inappropriate follow-up: no one alerted the primary care physician of the problem. If the primary care physician had been called, she would have been able to inform the care team that the TB test had been negative, thus allowing for improved treatment and prevention of unnecessary use of respiratory isolation.

We have since made changes to the way we document TB test results in the computerized medical record. Prior to the conference, results of TB skin testing would be recorded
Table 1. Guidelines for Care of Patients Postbariatric Surgery

For patients of the BWH bariatric surgery program:

Primary care will:
1) See patient within 4 weeks of surgery
2) See patient on a regular basis, as needed
3) Enter the name of the surgical team contact person into Summary 2 of LMR

Bariatric surgery will:
1) Follow patient for 3 years after surgery, frequently initially then as clinically indicated
2) Follow appropriate labs for first year after surgery
3) Communicate with primary MD about who will follow appropriate labs after first year

For nutrition-related questions or general questions about the surgical or medical weight loss programs, contact: Jane Doe, MS, RD, Program Coordinator, Program for Weight Management, 617-XXX-XXXX, beeper #XXXXX

For clinical questions that do not need emergency input from a surgeon, contact: John Brown, PA-C, Bariatric Surgical PA, 617-XXX-XXXX cell phone: 617-XXX-XXXX

For unassigned bariatric patients who require urgent/emergency consultation from a surgeon, there is a bariatric surgery call schedule. Look up the schedule in BICS or call the page operator to page.

Bariatric surgery department policy is to follow patients for life on an annual basis. We see patients more frequently immediately after surgery. As part of the follow-up, we order and review appropriate lab data.

For patients whom our group has not operated on, we highly recommend that the PCP communicate with the surgeon who did the surgery, as he or she is in the best position to address any concerns/issuses.

For patients of NON-BWH bariatric surgery program:

Primary care will:
1) See patient within 4 weeks of surgery
2) See patient on a regular basis, as needed
3) Enter the name of the contact person into Summary 2 of LMR
4) Define with surgeon who will be responsible for labs

Bariatric surgery will:
1) Provide a contact person for the patient
2) Follow patient for 3 years after surgery, frequently initially then as clinically indicated
3) Follow appropriate labs for first year after surgery
4) Communicate with primary MD about who will follow appropriate labs after first year

BICS = hospital computer system; LMR = electronic medical record.

Table 2. Guidelines for Patients Beginning Immune-Modulating Medications

All patients beginning significant-risk immune-modulating medications will have a tuberculosis (TB) test
The date and results of the TB test will be recorded in the health maintenance/immunization section of the computerized medical record

The date and results of the TB test will be recorded on the rheumatology patient consent form for beginning immune-modulating medications

Additional cases discussed to date include a woman with progressive eye and blood vessel complications of diabetes mellitus. In this case, we reviewed newest medications and one of our endocrinologists presented a model for using a multidisciplinary team to improve care of patients with diabetes. One practice has implemented the model and has improved patient and staff satisfaction with other outcomes to be measured in the future. Another case involved an elderly man who developed changes in mental status that were progressive after initiation of antipsychotic medications. A review of medications that could have been prescribed revealed the potential for medication interactions and to high doses. Suggestions for changes in medications were made that would have likely resulted in improvement of his mental status. This discussion focused on best use of antipsychotic medications in elderly patients and the risks and benefits of the newer medications versus the older medications. We also discussed the use of nonpharmacologic therapies for dementia in the elderly. Recommendations are still in development.

Summary
We consider the primary care MMC a valuable tool for improving the quality of care for patients in our primary care practices. The conference allows for reflection and learning among physicians and is intended to lead to real changes that can be implemented across all our practice sites. We believe this ambulatory MMC can help reduce medical errors and lead to improved care systems. We plan to review our recommendations and changes on a regular basis to assess degree of implementation and need for changes.

The MMC schedule is now included in the monthly e-mail circulated to all primary physicians and announced at all leadership meetings. Feedback to date from participants has been positive. Participants find the discussions informative and educational, like the fact that continuing medical education credits are provided, and appreciate the recommendations that follow the conferences. At the attendees’ request, for driving and parking convenience future conferences will be held off the main campus at our largest...
multidisciplinary ambulatory care center, 3 miles from the main hospital.

Corresponding author: Robert C. Goldszer, MD, MBA, Brigham and Women's Hospital, 75 Francis St., Ph-4, Boston, MA 02115, rgoldszer@partners.org.

References


Copyright 2006 by Turner White Communications Inc., Wayne, PA. All rights reserved.