The Role of Morbidity and Mortality (M&M) Conferences in Medical Education

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M&M Conferences, Yesterday and Today

While adverse and unexpected clinical outcomes have probably been discussed since the dawn of medicine, the formal morbidity and mortality conference can trace its beginnings to the 1930s and the Philadelphia County Medical Society’s Anesthesia Mortality Committee. Later renamed the Anesthesia Study Committee, this multi-institutional group, composed of anesthesiologists, surgeons, and internists, met monthly to review fatalities related to anesthesia and “other interesting topics.” The cases were collected through the systematic review of hospital records when it became clear to the organizers that practitioners involved in adverse outcomes rarely volunteered their case for discussion. The focus of the meeting was on education, through open discussion of the patient’s course, and on improving the community standards of healthcare in the Philadelphia area through the dissemination of knowledge and experience. This original model of the M&M conference was a highly regarded, popular educational event.

Today, depending on the specialty and the institution, morbidity and mortality conferences in Western medicine have variable formats and foci. In contrast to the Anesthesia Study Committee, national surveys have found that meetings billed as M&M conferences frequently concentrate only on interesting and unusual cases, completely avoiding the discussion of medical errors and adverse outcomes.

Two of the prominent governing bodies of medical education in the United States; the Accreditation Council for Graduate Medical Education (ACGME) and the Accreditation Council for Continuing Medical Education (ACCME), address the importance of M&M conferences but fail to define them in any substantial way. On the other hand, the Liaison Committee for Medical Education (LCME) does not mention this educational venue, presumably because the MD curriculum has a different focus, given that medical students are not expected to be directly responsible for clinical decision-making.

The M&M Conference as an Instructional Venue

If it can be assumed that M&M conferences are meant to have an educational role, it seems important that the format of the event should follow as many of the proven adult learning principles as possible. Robert Gagne defines learning as a process that leads to a change in the learner’s disposition and capabilities that can be reflected in their behavior. Adults choose to participate in a learning opportunity with the intent of creating a change in their knowledge level, skills, attitude, or behavior. In 1984, Malcolm Knowles published his original principles of adult education and though his notion of andragogy has been examined and modified by several educational scholars over the past three decades, there is still widespread agreement on most of the basic tenets. In essence, adult learning is most productive when the teacher has: 1) gained the learner’s attention by making the topic relevant to their job or personal life, 2) stimulated their prior recall of the topic and given them the opportunity to integrate the new information with what they already know, 3) made the information practical, 4) made the instruction problem centered, rather than content centered, and 5) made the instructional environment respectful and safe. It is important to note that Davies, et al. found that exclusively didactic types of instruction, such as lectures, do not improve physician performance or patient care, while interactive and sequenced learning has been associated with a positive impact.

The M&M Conference as a Venue for Improving Patient Safety

Since the Institution of Medicine’s publication, “To Err is Human” in 2000, considerable focus has been placed on a systems approach to improving patient safety. Experts recommend a culture of patient safety that permeates a healthcare organization and is embraced by all levels of the system. This “safety culture” must have the following elements: 1) acknowledgment of the high-risk, error-prone nature of an organization’s activities, 2) a blame-free environment where individuals are able to report errors or close calls without fear of reprimand or punishment, 3) an expectation of collaboration across ranks to seek solutions to vulnerabilities, 4) a willingness on the part of the organization to direct resources for addressing safety concerns. Coupled with the safety culture is the concept of a “just culture” which recognizes that competent professionals make mistakes and acknowledges that even competent professionals will develop unhealthy norms (shortcuts, “routine rule violations”). It is important to note that a just culture has zero tolerance for reckless behavior. In a just culture, professionals feel comfortable disclosing error, including their own, while maintaining accountability. Finger pointing, recrimination, and a hierarchal healthcare structure have all been shown to increase, rather than decrease the likelihood of medical error.

A discussion of patient safety would not be complete without mentioning the “second victim” phenomenon. A second victim, as defined by the Joint Commission on Accreditation of Healthcare Organizations (JAHCO), is a health care provider involved in an unanticipated adverse patient event, medical error, and/or a patient-related injury, who becomes victimized in the sense that the provider is traumatized by the event. Frequently, second victims feel personally responsible for the unfortunate patient outcomes and feel as though they have failed their patients. This often leaves them second-guessing their clinical skills and knowledge base and can lead to significant psychological sequelae. Healthcare providers
in a system that fails to support second victims may be less likely to disclose adverse events. If M&M conferences are meant to raise the community standards of medical care, it stands to reason that the preparation and format should be designed to incorporate as many of these safety cultural principles as possible.

M&M Conferences at JABSOM
In September of 2010, an informal survey titled “Morbidity and Mortality Conferences at UH” was sent to the nine residency Program Directors of Hawaii Residency Program, Inc, with the following results obtained. The response rate was 100%. Sixty-seven percent of programs have a recurrent series of conferences that could fit the definition of a morbidity and mortality conference. The frequency of these meetings range from once per week to twice each year, with monthly being the most common interval. The respondents reported that these conferences are consistently led by the Program Director or a designated senior faculty member. Cases are presented by one of the resident physicians involved in the care of the patient. Residents are expected to attend and most departments encourage, but do not require faculty attendance. Community physicians, students, and nursing staff are typically invited. One program only allows physicians and mid-level providers (nurse practitioners, physician assistants, etc) to attend. A third of the programs offer continuing medical education credit to attendees.

Four of the nine programs claimed an effort at systematically identifying and presenting all cases of morbidity and mortality at their institution while the majority of programs left case selection up to the senior residents or faculty. As a general rule, several cases are presented and discussed in an open forum but some programs reported a more didactic treatment of a single case. All of the programs claim to present and discuss patients from a safety and just culture perspective without placing blame for the adverse outcome on individual physicians. Of note, only one program reported a concerted effort to address the “second victim” phenomenon by debriefing the physicians involved, while providing support and guidance during the stressful experience of having been involved in an adverse outcome.

Discussion
The ACGME Outcomes project requires programs to teach and evaluate residents in practice-based learning and improvement, systems-based practice, and professionalism. The ACCME requires that gaps in physician knowledge and behavior be identified and addressed. The M&M conference, when conducted with adherence to adult learning and patient safety principles, represents an excellent opportunity to address those goals. Standing between the status quo and the M&M conference designed around evidence-base tenets are the roadblocks of tradition, political pressure, concerns about professional and/or institutional liability, individual egos, and time constraints.

Summary
M&M conferences are an integral part of contemporary medical education and are often identified as a rich learning event in the instructional curriculum. While the conferences can have variable formats, they should adhere to some basic adult learning and patient safety principles if they are to be educational and change the standard of healthcare in a community. A just culture and a safe learning environment must be pervasive. Unexpected and adverse outcomes should be systematically identified, presented and discussed in a timely fashion. The case presentation should come from the providers most aware of both the details and the rationale for the medical decisions. Discussions should be free of finger pointing and accusations, be evidence-based, and have participation by individuals with expertise in the topic. The focus should not be on punishing errors, but rather on developing behaviors and systems that minimize the opportunity for misadventures and that recognizes mistakes will still occur and catches those errors before patients are harmed.

References