NARRATIVE REVIEW

The Impact of Mortality and Morbidity Meetings on Quality Improvement and Patient Safety

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Abstract

Mortality and Morbidity meetings are vital forums for improving patient safety and fostering a culture of learning in healthcare. These meetings facilitate the identification of systemic vulnerabilities, root-cause analysis, and actionable quality improvement initiatives. They are especially crucial in resource-limited settings, where they address infrastructural and workforce constraints. However, barriers such as inconsistent attendance, lack of standardisation, underreporting, and limited follow-up hinder their effectiveness. To enhance their impact, standardised frameworks, multidisciplinary participation, and quality improvement tools, like the National Surgical Quality Improvement Programme, have been recommended. Expanding their reach through teleconferencing and publication of findings can further improve their utility. By addressing these challenges, these meetings can become transformative platforms for systemic change, professional development, and improved patient outcomes, particularly in resource-constrained settings. The current narrative review was planned to examine Mortality and Morbidity meetings' structure, impact, challenges and potential for optimisation.

Keywords: Mortality, Morbidity conferences, Quality improvement, Patient safety, Medical errors, Clinical governance, Low- and middle-income countries, LMICs.

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Introduction

Mortality and Morbidity (M&M) meetings form one of the cornerstones of modern healthcare, enabling a structured and systematic review of adverse patient outcomes. Traditionally focussed on in-hospital deaths, these meetings have evolved into critical forums for identifying systemic issues that contribute to mortality and morbidity. M&M meetings offer a great opportunity for healthcare professionals to discuss medical errors, near-misses and adverse events in an open environment without the fear of punitive repercussions. This openness nurtures not only accountability, but also professional growth and collaborative problem-solving.[1]

M&M meetings are not just about reviewing cases; they form part of the healthcare quality improvement process. Evidence shows that structured M&M processes facilitate the identification of root causes of adverse events, thus paving the way for targetted interventions aimed at preventing future occurrences.[2] Such meetings are also important to foster a learning culture within healthcare organisations. M&M meetings improve communication, teamwork and decision-making by encouraging a multidisciplinary approach among physicians, nurses and other staff. Thus, they result in improved patient outcomes.[3]

The introduction of M&M meetings is critical in resource-limited settings, like low- and middle-income countries (LMICs). Such settings face unique challenges, including inadequate infrastructure, limited resources and workforce shortages, that exacerbate risks to patient safety.[4] M&M meetings in such environments can highlight critical vulnerabilities in clinical practices and develop strategies to mitigate risks. Several studies undertaken in LMICs have demonstrated that structured M&M meetings can lead to significant improvements in clinical governance, documentation and adherence to protocols, with measurable reductions in preventable complications and mortality.[4]

The current review was planned to investigate the multifaceted impact that M&M meetings have on patient safety and quality improvement efforts across diverse healthcare settings. By identifying systemic challenges, fostering a culture of safety, and pressing for actionable solutions, the review may contribute valuable insights into the optimisation of such meetings to make them transformative tools in reducing preventable harm and improving patient outcomes, especially in resource-constrained settings.

Structure and Process of M&M Meetings: M&M meetings are organised discussions within healthcare

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institutions that systematically review both mortality and morbidity to improve patient outcomes. These meetings are conducted through an established process to ensure focussed and productive discussions that lead to effective outcomes. The selection of cases is a critical aspect, often including complex presentations with multiple comorbidities or serious adverse incidents. Each case is thoroughly discussed, addressing the specific clinical context and the issues encountered, thereby providing a platform for comprehensive analysis among the participants.

A key characteristic of effective M&M meetings is their multidisciplinary participation, which brings together healthcare professionals from diverse specialties. This approach enhances the quality of proposed interventions by incorporating varied perspectives and expertise. Such a collaborative environment fosters open dialogue, where participants can share ideas freely.[5] However, confidentiality and a non-punitive atmosphere are essential prerequisites to encourage honest discussions. Following these discussions, it is crucial to formulate clear recommendations aimed at preventing similar occurrences in the future. Effective M&M meetings not only identify problems, but also develop actionable plans, assigning responsibilities and timelines for implementation to ensure that lessons learned are translated into clinical practice.

The structure of M&M meetings may vary significantly across institutions and specialties. For example, surgical departments might focus on procedural complications, whereas internal medicine may prioritise diagnostic errors or delays in care.[6,7] Despite these variations, the core objectives remain consistent: to improve the quality of care through systematic review and learning from adverse events.[8] Research indicates that successful M&M meetings require structured approaches to reviewing cases and integrating findings into clinical practice. Recognising M&M meetings as underutilised opportunities for improving patient safety, healthcare organisations can strengthen their governance structures, foster a culture of continuous learning, and ultimately enhance patient care.

Impact of M&M Meetings on Patient Safety: M&M meetings serve as a cornerstone in fostering a culture of continuous learning, quality improvement, and patient safety within healthcare teams. These meetings provide a platform for healthcare professionals to discuss adverse events in a non-judgmental environment, facilitating open dialogue and collective problem-solving.[9] Robust evidence underscores the significant role M&M meetings play in enhancing patient outcomes. Studies have demonstrated that structured discussions in these meetings lead to actionable insights and the implementation of clinical and systemic changes aimed at improving safety and care delivery.[10] Furthermore, the educational value of M&M meetings is widely acknowledged, as they are perceived as effective tools for both identifying areas for improvement and enhancing clinical practice[11] .

M&M meetings have catalysed various safety improvements and quality initiatives. For instance, changes to local protocols and the development of referral guidelines have been directly attributed to these discussions. By providing a systematic approach to analysing adverse events, M&M meetings ensure that identified issues translate into meaningful action. Examples include revised practice protocols to mitigate errors and targeted training to address observed deficiencies. The role of M&M meetings extends beyond individual cases, addressing systemic challenges within healthcare. These meetings are instrumental in uncovering root causes, such as communication lapses, procedural inefficiencies and systemic barriers to timely care. Integrating M&M outcomes into broader hospital governance frameworks has been shown to enhance accountability and drive organisation-wide improvements. For instance, the introduction of standardised mortality review processes has bolstered the meetings' impact on safety governance, ensuring a focus on systemic solutions rather than isolated errors.[2]

Educational Value of M&M Meetings: The educational value of M&M meetings lies in their unique ability to combine clinical learning with quality improvement, fostering an environment of transparency and continuous professional development. These meetings have long served as a cornerstone of surgical education, offering a structured forum for healthcare professionals to reflect on adverse events and their implications for patient care. Traditionally focussed on major complications and mortalities, M&M conferences are increasingly evolving to include minor complications, which, while often overlooked, provide critical insights into improving patient outcomes and system-wide practices.[13]

The deliberate integration of minor complications into M&M discussions marks a significant enhancement in their contribution to surgical education. This shift, as explored in a study, involves a structured presentation strategy where junior residents systematically analysed specific minor complications. These presentations encompassed definitions, risk factors, institutional data and evidence-based management approaches, highlighting the importance of even seemingly minor

events in shaping clinical decision-making and patient-care strategies. The intervention not only improved reporting — raising the perception of the necessity to discuss minor complications from 58% to 95% — but also reinforced the role of M&M meetings in advancing surgical education and professional development.[12]

In addition to fostering a culture of transparency, M&M meetings play a vital role in developing critical thinking, teamwork and ethical decision-making skills. By encouraging in-depth analysis and collaborative problem-solving, these meetings enable healthcare teams to identify systemic vulnerabilities and implement actionable improvements. Incorporating national and institutional data, such as the American College of Surgeons-National Surgical Quality Improvement Programme (ACS-NSQIP) metrics, further contextualises these discussions, aligning them with broader quality improvement initiatives. This holistic approach not only strengthens the educational framework of M&M meetings, but also ensures their continued relevance in addressing contemporary challenges in surgical practice.[12]

Challenges in M&M Meetings: Traditionally, the objective of M&M meetings has always been to further education of the trainees and residents. However, in recent times, quality improvement has also become one of the widely recognised goals of M&M meetings although there has been limited practical implication.[2] Many different shortcomings have been recognised in literature that have contributed to the lack of long-term impact of M&M meetings. Some studies have identified a culture of individualistic accountability in cases of adverse outcomes instead of focusing on root system-level failures.[13] In cases where the meetings effectively manage to identify and discuss systemic failures that affect patient outcomes, there is a lack of follow-up on these findings in terms of reporting or monitoring the resulting quality improvement plans.[14] One of the reasons for this is that the meetings are confined to the department with limited involvement of the hospital governance team responsible for bringing about system-level changes. Studies have also reported resistance at the faculty level to involve other stakeholders in the meeting which limits the practical impact of the meetings.[15]

Another significant challenge that is being faced by M&M meetings is a decline in attendance of the meetings by faculty and residents. While making them mandatory and allowing protected time in residency can ensure attendance, studies have reported that one of the reasons why participants feel unmotivated to attend the meetings is the lack of change these meetings are able to inspire. Lack of feedback implementation results by them being considered a valuable resource in these meetings make the trainees feel unmotivated to participate in the meetings by compromising their surgery and ward responsibilities.[14] There is also a lack of standardisation in terms of case selection and analysis. Many settings focus on identifying individual rare cases with unexpected events rather than cases that represent the overall weaknesses in quality of care. This likely results from lack of standardised data-collection to identify cases for the meetings, with many hospitals manually identifying cases to be presented in each meeting.

Strategies to Enhance the Effectiveness of M&M Meetings: With recent focus on mortality rates as an indicator of quality improvement, many institutions have realised the potential of M&M meetings to provide a platform for studying systematic processes and improving them to ensure patient safety and quality of care.[2] This calls for a standardised implementation of the meetings using a more structured reviewing process with emphasis on not just discussing different management strategies and teaching residents, but also focusing on root-cause analysis of patient outcomes and system failures that can be identified and improved upon to prevent recurrence of such outcomes. Standardisation of these meetings also warrants recording the meeting discussion and outcomes, and a reporting framework involving the entire hospital beyond the department and specialty to ensure that the improvement strategies discussed in the meetings are also implemented.[2]

Quality improvement also requires case selection in the M&M meetings that are accurately representative of the recurrent adverse events occurring within a specific setting. This requires proper documentation and transparent reporting of the events. Standardised quality improvement tools can be utilised to ensure accurate data collection and avoid underreporting.[15] The NSQIP is one such tool that has shown significant improvement in the underreporting of adverse events due to its standard definitions of different complications. A study performed at Massachusetts General Hospital reported morbidity rates of 6.4% reported by M&M meetings compared to 28.9% reported by NSQIP.[16]

Studies have reported measures to disseminate the teachings of M&M meetings to a larger audience. Teleconferences are one such method to ensure attendance as well as to bring together multiple medical centres to discuss interventions that can be targetted to improve community-specific challenges that may be affecting patient outcomes across different settings. Similarly, publishing M&M meeting findings is another

way to ensure that meetings can be utilised as a resource for education as well as quality improvement measures.[15]

Conclusion

M&M meetings play a significant role in improving patient safety. They provide a platform for multidisciplinary problem-solving which can lead to overall betterment of patient care. While inconsistent attendance, lack of follow-up, and limited standardisation are some of their drawbacks, these meetings still have immense potential in enhancing patient safety. By using structured frameworks and quality improvement tools, the impact of these meetings can be maximised. Thus, M&M meetings can evolve into a cornerstone for systemic change and continuous professional development in modern healthcare.

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