MEWS clinical governance recommendations

Background

Based on notifications the Maternal Morbidity Working Group has received to date, an estimated 470 pregnant women each year in New Zealand suffer from severe maternal morbidity. Two maternity-specific studies[1,2] have identified that between 48 and 76 percent of these cases were potentially preventable. in maternal sepsis reviews, a key theme that the Maternal Morbidity Working Group's regional review panels have identified is the need for earlier recognition and response to deterioration.[3] Significantly, they found that earlier recognition and treatment of these women could have reduced the severity of their morbidity.

Early warning systems support maternity services to recognise maternal morbidity and respond quickly. A standardised maternity early warning system (MEWS) will support clinical judgement and best practice, particularly in cases with increasing complexity (eg, older women with co-morbidities). Factors contributing to failures to recognise or respond to a woman's deterioration are complex and wide-ranging.[4] These include a lack of formalised systems and processes; a siloed and super-specialised hospital workforce; problems associated with inadequate clinical knowledge and skills; suboptimal handover, communication and teamwork; inconsistent engagement with women and their whānau and families; organisational resource constraints; and competing priorities.[5,6,7,8]

Introduction

A clinical governance committee is needed to provide oversight and expert advice about the safety, effectiveness, and ongoing improvement of the national MEWS. Hospitals with well-established maternity early warning systems may already have established clinical governance processes that are working well. Others may need to establish a new clinical governance committee or reporting arrangement within existing maternity clinical governance arrangements.

Smaller centres may take an approach to clinical governance that relies on linkages with pre-existing structures such as organisational patient safety and quality committees. Whatever the situation, a multidisciplinary committee must provide MEWS oversight.

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[1] Lawton B, MacDonald E, Brown S, et al. 2014. Preventability of severe acute maternal morbidity. *American Journal of Obstetrics & Gynecology* 210: 557.e1−6.

[2] Sadler LC, Austin DM, Masson VL, et al. 2013. Review of contributory factors in maternity admissions to intensive care at a New Zealand tertiary hospital. *American Journal of Obstetrics & Gynecology* 209: 549.e1−7.

[3] Maternal Morbidity Working Group. 2018. *Maternal Morbidity Working Group Annual Report 1 September 2016 to 31 August 2017*. Wellington: Health Quality & Safety Commission.

[4] Jeffery J, Hewison A, Goodwin L, et al. 2017. Midwives' experiences of performing maternal observations and escalating concerns: a focus group study. *BMC Pregnancy and Childbirth* 17: 282.

[5] Cioffi J, Salter C, Wilkes L, et al. 2006. Clinicians' responses to abnormal vital signs in an emergency department. *Australian Critical Care* 19: 66−72.

[6] Endacott R, Kidd T, Chaboyer W, et al. 2007. Recognition and communication of patient deterioration in a regional hospital: a multi-methods study. *Australian Critical Care* 20: 100−5.

[7] DeVita M, Hillman K, Bellomo R. 2010. *Textbook of Rapid Response Systems: Concept and implementation*. New York: Springer.

[8] Van Leuvan C, Mitchell I. 2008. Missed opportunities? An observational study of vital sign measurements. *Critical Care and Resuscitation* 10: 111−5.

The function and sustainability of MEWS depend on underpinning structures for clinical governance, teamwork, handover and communication, education, measurement and evaluation. Clinical and administrative resources are required to support sustainable and effective functioning of the system. Early warning systems in specialised maternity settings should be aligned with systems operating in the rest of the hospital. For this reason, a whole-of-hospital approach is needed to successfully implement them and to achieve sustained improvement. These systems also need to link to hospital-wide clinical governance.

Recognition and response systems must be part of the strategic plan to make a hospital safer.[7] Visible and ongoing executive, clinical and operational leadership and clear clinical governance structures are needed to ensure that MEWS is adequately supported and functioning successfully. Those who are accountable for the performance of MEWS must oversee a range of activities such as developing policy and processes, undertaking evaluation and quality improvement, providing adequate staff resourcing and equipment, providing education and engaging women, families and whānau. A collaborative model of executive, clinical and operational leadership is required. Please refer to the Health Quality & Safety Commission's clinical governance guidance[9] and quality and safety capability framework[10] for further advice.

Purpose

These recommendations are intended for project teams responsible for implementing and improving MEWS in New Zealand hospitals. They demonstrate the importance of integrating systems for maternity into the wider hospital adult recognition and response clinical governance structures.

An example terms of reference for the wider hospital adult recognition and response governance committee is available on the Health Quality & Safety Commission's website.[11] Clinical governance committees have been notified to change their terms of reference to include maternity representatives from early 2019. The key components of the terms of reference include: purpose, membership, responsibilities, organisational reporting requirements, meetings and decision-making, and terms and conditions of appointment.

The MEWS should be a standing item on the already-established maternity service clinical governance structure. This structure will have a reporting line to the wider hospital clinical governance committee, such as the clinical board.

Responsibilities of members of the maternity clinical governance committee

1. **Policy and resourcing**: The governance committee should take responsibility for developing and monitoring local policy and implementation of MEWS, as well as guidance on criteria and frequency of vital sign observations. The governance committee is responsible for escalating concerns within the organisation, regrading adequate staffing and other capability to implement the MEWS.
2. **Effectiveness**: The maternity clinical governance committee should monitor the effectiveness of the MEWS by reviewing audit reports (process measures), outcome and balance measures and addressing barriers the MEWS project group may encounter. The committee must address

[9] Health Quality & Safety Commission. 2017. *Clinical Governance – guidance for health and disability providers*. Wellington: Health Quality & Safety Commission. URL: www.hqsc.govt.nz/our-programmes/building-leadership-and-capability/publications-and-resources/publication/2851/ (accessed 14 February 2019).
[10] Health Quality & Safety Commission. 2016. *From Knowledge to Action: A framework for building quality and safety capability in the New Zealand health system*. Wellington: Health Quality & Safety Commission. URL: www.hqsc.govt.nz/our-programmes/building-leadership-and-capability/publications-and-resources/publication/2669/ (accessed 14 February 2019).
[11] Health Quality & Safety Commission. 2017. Clinical governance recommendations for recognition and response systems. Wellington: Health Quality & Safety Commission. URL: www.hqsc.govt.nz/our-programmes/patient-deterioration/publications-and-resources/publication/3538/ (accessed 14 February 2019).

variations in escalations and response systems that are not warranted and work to ensure a culture of respect between professional groups and speciality teams.

Data that the committee may consider for collection and review includes:

- rates of unplanned increased resource or transfers to higher-acuity care (eg, increasing staffing to facilitate 1:1 in delivery suite; or transfer to an intensive care unit, a high dependency unit or a tertiary hospital)
- audits of vital sign and early warning score documentation
- data from electronic systems to identify missed or delayed escalation
- data from retrospective case note review and multidisciplinary maternal morbidity reviews to identify missed or delayed escalation or insufficient response
- periodic surveys of staff attitudes and surveys of women, families and whānau to find out their experiences of using MEWS.

Refer to the **measurement guidance** in the MEWS compendium for information about measures, further definitions and detail.

3. **Clinical leadership**: The committee members role-model the importance of early recognition and response to maternal deterioration through their own personal clinical behaviours. They must be aware of this responsibility in their everyday work.

   Medicine, midwifery, nursing, anaesthetics and allied health must provide clinical leadership so that early warning systems are established and maintained successfully. Responsibilities of clinical leaders may include:

   - advocating for use of MEWS with clinical colleagues
   - working with consumers to co-design local elements of MEWS (eg, escalation pathways for women, families and whānau)
   - collaborating with colleagues with expertise in patient safety and quality improvement to design processes, policies and improvements to MEWS
   - providing or seeking expert clinical advice to inform case investigations involving failures to recognise or respond to deterioration
   - advising on the content of education about topics such as vital sign and maternity early warning score measurement and documentation, escalation of care, assessment and care of women whose condition deteriorates, teamwork, handover and communication.

4. **Day-to-day management**: The clinical governance committee must ensure that day-to-day management of the MEWS is allocated to an identified person (or people) who has the relevant skills, experience and delegations to address operational requirements. This role may be specifically established in large hospitals or made part of existing roles in smaller hospitals.

   Responsibilities of the MEWS operational leader(s) include coordination and oversight of:

   - managing specialist responders (eg, intensive care outreach nurses, patient-at-risk teams or other senior medical and nursing staff) and coordinating the day-to-day work of rapid response team members
   - coordinating access to required education for participants in the recognition and response system
   - collecting data and reporting (or allocating this work)
   - implementing policy and processes
   - managing day-to-day process issues.