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Enhanced maternity care in a tertiary obstetric unit: what are we delivering and how can we improve?

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Introduction

With rising medical morbidity in the pregnant population, an increasing cohort of women require high dependency or enhanced maternity care during their pregnancy, particularly in the intrapartum and early postnatal period.[1] This prospective audit aimed to describe provision and delivery of enhanced maternity care (EMC) in a tertiary obstetric unit (>5000 births per year) in order to inform future education and training.

Methods

A prospective audit of all maternity patients requiring EMC between 22 June - 14 July 2020 was undertaken. Data collection included: patient demographics, reason for admission, maternal observations on initiation of EMC, investigation results, patient clinical management, duration of care and frequency of review. APACHE2 scores were calculated at the initiation of EMC for all women. Qualitative data from multi-professional staff was collected via questionnaires. Comparison of disease severity and aetiology in obstetric admissions to the adult HDU was also performed.[2]

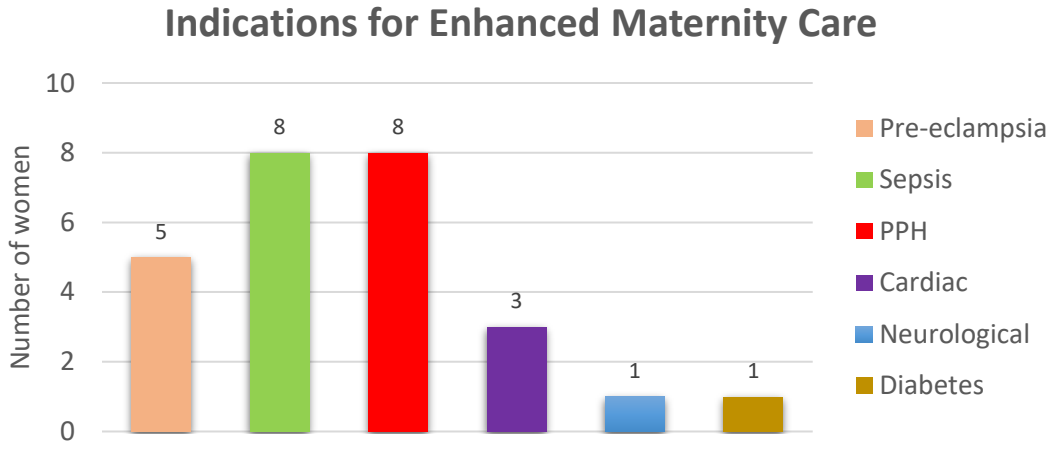
Results

A total of 24 women had 26 admissions to EMC during the data collection period. The most common causes of admission were: sepsis (8/26 women), postpartum haemorrhage (8/26 women) and severe pre-eclampsia (5/26 women), although cardiac, neurological and endocrine conditions were also reported as indications for EMC within the cohort.

The median [IQR] duration of admission was 22:50 hours [9:00-33:00 hours]. The mean interval between patient reviews was 5:50 hours (4:58-8:15h) with 57% (60/105) of reviews being consultant-led.

Mean APACHE2 score was 8.2 [range 6-19, standard deviation 3.05], compared to 7.2 (standard deviation 4.20) for obstetric admissions to adult HDU in a previous study[2]. Multi-professional questionnaires were completed by 65 staff.

Questionnaires were completed by 64 members of the maternity multidisciplinary team. Questionnaire responses on potential EMC standards included: 97% (38/39) doctors recommended that patient reviews should be multi - professional where possible; 67% (43/64) of multidisciplinary staff suggested that reviews occur every 6 hours, with a further 27% (17/64) recommending reviews at least every 12 h. Midwifery responses identified a high demand for additional education, with 96% (24/25) requesting further training in EMC.



Discussion

This project highlights the high volume of EMC provision being provided in a tertiary obstetric unit, with these numbers extrapolating to approximately 413 cases per year. The leading causes of admission were sepsis, PPH and pre -eclampsia, a finding also seen in a previous local audit[2]. The diversity of pathologies, and high APACHE2 scores that are similar to maternity admissions to adult HDU, demonstrate the need for specialist training and expertise to manage these cases. The data collected and multidisciplinary questionnaires identified areas for improvement, including: development of local standards for EMC (including multi-professional review every 6-12 hours led by senior registrar or consultant), development of a new local EMC proforma, and development of training to improve staff knowledge, skills and confidence in managing these increasingly complex patients.

References

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