Critical Care Outreach: Utilization in Obstetric Patients

Abstract Type: Original Research

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Introduction: Critical care outreach teams identify and manage unwell patients prior to deterioration, reducing morbidity and mortality.(1) Maternal ‘near-misses’ are more common than maternal deaths and may provide a more appropriate appraisal of threats to maternal health.(2) Analyzing critical care outreach team reviews broadens the scope of analysis from ICU admissions alone. The aim was to identify the utilization of critical care outreach in obstetric patients, review triggers, maternal morbidity and areas of sub-optimal care. Analysis of this kind is needed, as its scope for improving care is currently unknown.(3)

Methods: The Ottawa Hospital critical care outreach database was used to identify obstetric patients reviewed by the critical care outreach team between 2006 and 2009. Chart reviews provided further information.

Results: A total of 46 patients were reviewed by the critical care outreach team, of which, 38 (83%) were over 30 years old and 31 (67%) required review outwith normal working hours. Hypertensive disease was the most common pathology (15 patients) followed by hemorrhage (7 patients) and cardiac arrhythmias (6 patients). Twenty-one (46%) patients were admitted to ICU following review. Five cases demonstrated poor utilization of critical care outreach service with prolonged patient deterioration noted prior to review.

Discussion: Recognition of life threatening illness in the obstetric population is challenging due to its relative rarity and the normal physiological changes of pregnancy. The relatively small number of patients (46 in 4yrs) may reflect the rarity of maternal critical illness, or possibly an underutilization of critical care services. Referral delays were seen in five cases, all of which would be seen as ‘near-misses’. Tracking physiological variables improves the detection of critical illness, however, the subsequent referral system and management are vital to improving outcome.(4) Maternal pathology from this review is consistent with other studies examining ICU admissions in obstetric patients.(2) The high percentage of ICU admissions, 46% compared with 27% of hospital wide referrals(1), may reflect the seriousness of late deterioration in the obstetric population and the morbidity associated with hypertensive disorders in pregnancy and obstetric hemorrhage. Eighty-three percent of the women reviewed were over 30. Increased maternal age and levels of obesity are impacting significantly on maternal morbidity and mortality.(4) This will only increase the demand for critical care services in the obstetric population. Identification of appropriate triggers followed by prompt and appropriate medical management should improve maternal outcome, as it has already been shown to in the general hospital population.(1)

REFERENCES
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