Electronic Fetal Heart Rate Monitoring

Background
During the period 2004 to July 2006, 31 percent of maternal and perinatal Reportable Incident Briefs (RIBs), received by the NSW Department of Health, related to inadequate fetal welfare surveillance; inadequate or untimely obstetric or neonatal emergency response; and poor communication between teams.

Between 2005 and 2006, there has been a six-fold increase in incidents related to fetal welfare surveillance. The RIBs identified some of the following situations:

- Inability of maternity care providers to recognise risk factors that require continuous Electronic Fetal Heart Rate (FHR) Monitoring during labour.
- Failure to recognise, react and manage FHR patterns that should cause concern.
- Removal of the FHR monitoring in the presence of an abnormal FHR pattern.
- Inadvertent monitoring of maternal heart rate in the presence of a deceased fetus.

Issue
A number of guidelines devoted to Intrapartum Fetal Surveillance have been developed over the past few years. These guidelines have been variously adopted across NSW and within Area Health Services (AHS). The use of multiple guidelines, although similar in many ways, creates an environment of confusion and increases the risk of incidents occurring. Consistent education on this issue is critical.

The NSW Department of Health is developing an education, policy directive and guidelines strategy to improve fetal welfare surveillance, neonatal resuscitation and obstetric emergency management, and to reduce poor outcomes for mothers and babies in NSW.

What can AHS do to prevent these incidents?

- Each AHS should have consistent, evidence-based guidelines on Electronic FHR Monitoring and regularly audit compliance with these guidelines.
- Each AHS has a responsibility to provide ongoing education on Electronic FHR pattern interpretation and to ensure staff are competent.
- Maternity care providers performing and interpreting FHR patterns should be clinicians privileged or appointed to practise Obstetrics, Registered Midwives, and Student Midwives under the supervision of a Registered Midwife.
- Any hospital that is not delineated to perform an immediate emergency caesarean section should not attend Electronic FHR Monitoring. All maternity facilities should have clear networking arrangements to a higher level centre for advice, consultation and referral.
- All relevant facilities should develop methods of Electronic FHR Monitoring documentation and communication among maternity care providers, particularly on-call medical staff.

Suggested Actions by Area Health Services:
1. Ensure that this Safety Notice is distributed to all relevant stakeholders.
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Key steps during Electronic FHR Monitoring

- Throughout the intrapartum period, in the presence of continuous Electronic FHR Monitoring, ¼ - ½ hourly assessment of the FHR pattern should occur. Regular Electronic FHR Monitoring must be documented in the patient’s health care record, using set criteria.

- At commencement of the cardiotocography (CTG) the documentation of the pattern should include the woman’s name and medical record number, estimated gestation, clinical indications for performing the FHR pattern, time and date of commencement, and the maternal pulse rate. The fetal heart should be auscultated with a Pinard stethoscope before the FHR monitoring is commenced.

- In the presence of continuous Electronic FHR Monitoring, the maternal pulse should also be recorded on the CTG every hour.

Further reading

- *Delineation of clinical privileges for visiting practitioners and staff specialists: Policy for implementation, PD2005_497*. 

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