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Safety Notice 006/10

16 June 2010

Pathology Testing – Caesarean Section Operations

Background

In June 2009 the NSW Coroner released his report into the maternal death of a NSW woman who died in 2007 from multi-system organ failure following a postpartum haemorrhage after a caesarean section operation. The coroner recommended that consideration be given to implementing a uniform policy in NSW that provides that a full blood count and group and hold be undertaken for all elective and emergency caesarean sections. In considering a response, the Maternal and Perinatal Health Priority Taskforce reviewed international guidelines.

Routine antenatal testing in early pregnancy includes a full blood count and blood group and antibody screen. Generally, repeat haemoglobin estimation is performed at 28 weeks and/or 36 weeks gestation to assess for pregnancy related anaemia and repeat blood group and antibody screening is dependent on rhesus status or the detection of atypical antibodies at the first screen.

Issue

Caesarean section operations carry a greater risk of significant blood loss compared to vaginal birth. Practice with respect to routine full blood count and group and hold for caesarean section operations varies across public and private sectors, and within the public sector there are variations between metropolitan and regional / rural centres. The following is the recommended minimum standard for action by Area Health Services (AHS).

Actions required by AHS

1. Ensure all women attending for pregnancy care are screened for anaemia during pregnancy at least at booking and again in the third trimester and ensure that clinical practice guidelines provide appropriate guidance for the subsequent investigation and/or treatment of anaemia.
2. Ensure all women undergoing a caesarean section operation have had a recent full blood count performed. This may be within the preceding month (routine screen), as part of a pre-operative assessment or in labour.
3. Ensure all women with identified risk factors undergoing caesarean section operations have a current group and hold (or cross-match where clinically indicated) either as part of a pre-operative assessment (in the case of elective procedures) or in labour (in case of emergency procedures).

Risk Factors may include (but are not limited to) the following

• Grand Multiparity	• Multiple pregnancy
• Polyhydramnios	• Macrosomia
• Uterine Abnormalities: e.g. fibroids	• Intrauterine infection / sepsis
• Uterine relaxing agents given e.g. terbutaline or other tocolytics, magnesium,	• Planned general anaesthetic
• Placenta praevia	• Placenta accreta (known or where risk factors identified)
• Pre-eclampsia	• HELLP Syndrome
• Placental abruption	• FDIU>4/52
• Amniotic Fluid Embolism	• Bleeding disorders
• Drugs (aspirin / heparin)	• Caesarean section performed in labour

4. Ensure all hospitals delineated to perform caesarean section operations have the appropriate level of support service with respect to pathology services as outlined in *The Guide to the Role Delineation of Health Services (2002)* by Statewide Services Development Branch.

Actions required by Area Health Services:

1. Distribute this Safety Notice to all relevant stakeholders.
2. Review practices for pathology testing for caesarean section operations
3. Ensure staff are aware that further information is available via the CIAP website at <http://www.ciap.health.nsw.gov.au> or <http://internal.health.nsw.gov.au>

Distributed to:

- Chief Executives
- Directors of Clinical Governance
- Directors of Clinical Operations

Action required by:

- Directors of Clinical Governance

We recommend you also inform:

- Directors of Midwifery and Nursing
- Directors of Maternity Services
- Maternity managers
- Midwives and Student Midwives
- Obstetric medical staff including GP Obstetricians

Expert Reference Group

Content reviewed by:

- Primary Health and Community Partnerships Branch, NSW Health
- Maternal and Perinatal Health Priority Taskforce
- Maternity and Perinatal Committee
- Nursing and Midwifery Office
- Statewide Services Development Branch

Clinical Safety, Quality and Governance Branch

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