Group and Screen Requirements in Maternity

Document Type	Policy
Function	Clinical Service Delivery
Directorates	Women's Health
Department(s) affected	Maternity
Applicable for which Patients, Clients or Residents?	All maternity patients
Applicable for which Staff?	All clinicians in maternity (including access holder LMCs)
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1. Purpose of policy

To establish the process around ensuring that blood is readily available for all women with the potential for a caesarean section or the potential for a primary postpartum haemorrhage. The policy covers antenatal inpatients, induction of labour, intrapartum care, and the immediate postpartum period.

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2. Policy statements

It is the policy of Auckland District Health Board (ADHB) to ensure that blood is readily available for all women within with the potential for a caesarean section or the potential for a primary postpartum haemorrhage.

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3. Background

The overall incidence of intra-operative blood transfusion for acute blood loss at caesarean section is between 0.6% and 1.0%. This incidence includes those cases at known risk for excess blood loss; the incidence of transfusion for caesarean sections not included in the 'known risk' category is not known, but is likely to be lower.

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4. Blood bank process

A group and hold is only valid for 72 hours in pregnancy. (Where patients are pre-admitted on a Friday for elective caesarean section on Monday this period is extended to 96 hours).

Placenta praevia samples must be kept for 7 days but should blood be required during this period, another sample is to be sent to the blood bank prior to transfusing the blood provided.

Once blood is crossmatched (either electronically if no antibodies present, or manually if antibodies present), this is available via Lamson tube, within minutes from blood bank.

Note: It will take a minimum of an hour for a group and hold to be processed at the blood bank, and longer if the woman has antibodies.

- Any woman with antibodies at any time during the pregnancy will require a group and screen and a manual crossmatch for blood to be available at delivery
- The blood bank must notify (via phone) the practitioner who ordered the group and screen when there are positive antibodies and must immediately commence a manual crossmatch of 4 units of red cells (though this may take upwards of two hours depending on the antibody/s identified). Notification of a positive antibody screen is on Concerto and it will state that "blood for transfusion will be delayed"
- The obstetric team or private obstetrician must discuss urgency with the blood bank

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5. Indications for group and screen

Inpatients requiring a group and screen at Women's Health (antenatally, at time of induction, intrapartum or immediately postpartum):

- Placenta praevia - risk of accreta increases with each previous CS
- Anaemia pre-labour – inform obstetric team, transfusion requirement is variable
- Previous postpartum haemorrhage from uterine atony
- Over distended uterus (multiple pregnancy, large fetus, polyhydramnios)
- Morbid obesity (BMI greater than 35 kg)
- Ante-partum or intra-partum haemorrhage including abruption (large abruption may require transfusion ante- or intra-partum)
- Hypertension/pre-eclampsia complicating pregnancy
- History of pelvic trauma or previous significant pelvic/lower abdominal surgery
- Breech and other malpresentations
- Multiple pregnancy
- Induction of labour
- Planned or imminent caesarean section
- Trial of labour after a previous caesarean section
- Concern regarding fetal wellbeing
- Operative vaginal delivery
- Prolonged labour i.e. first stage > 12hrs , second stage > 3hrs
- Augmented labour
- Chorioamnionitis (pyrexia)
- Retained placenta
- EBL > 500ml

Healthcare providers must continually reassess the risk of possible caesarean section or primary postpartum haemorrhage throughout labour; in the event of any significant deviation from the normal, the need for undertaking a group and screen must be reviewed.

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6. Group and screen results and operating rooms

In all cases managed in an operating room, blood must be available quickly at the start of the case. The nature of the case will dictate whether a stated number of units are requested and if so how many. If compatible blood cannot be available in the required time frame in an emergency, the blood bank can supply “desperate units” on request and the management must not be delayed beyond safe limits.

Negative antibody screen

Blood can be issued within 10 minutes.

Positive antibody screen

If a manual crossmatch has already been completed, check the number of units available and discuss with the surgical team. Blood can be issued immediately on request.

If a manual crossmatch has not been completed, the case must still proceed if urgent, and ‘desperate units” may be issued immediately on request. However if the case is not urgent then it must not proceed without the crossmatch being complete.

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7. Associated ADHB documents

- Blood Components & Blood Products Administration
- Admission - Labour & Birthing Suite
- Induction of Labour - RBP
- Postpartum Haemorrhage
- Caesarean Section (CS) - Access, Preparation & Care in Operating Room

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8. Other documents

- ADHB Blood Resource – New Zealand Blood Service (NZBS)

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9. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed ***before*** the scheduled date, they should contact the owner or the Clinical Policy Advisor without delay.

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