

## **RhD IMMUNOGLOBULIN IN OBSTETRICS**

*This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.*

### **1. AIM**

- Prevention of Rhesus isoimmunisation

### **2. PATIENT**

- Woman who has RhD negative blood group

### **3. STAFF**

- Registered Midwives
- Medical Staff

### **4. EQUIPMENT**

- RhD Immunoglobulin (Anti-D)
- Syringe (3ml) and needle (21 gauge)
- Vacutainer and (21 gauge) needle

### **5. CLINICAL PRACTICE**

- Screen all pregnant women at booking for blood group and Rh antibodies.
- Refer all antibody positive women to medical officer.
- State on all blood request forms that the woman is pregnant and the date that RhD Immunoglobulin (Anti-D) was previously administered (if applicable).
- Provide information pamphlet "You and Your Baby important information for RhD negative women" to all RhD negative women.
- Obtain written consent (or clinical declaration if declined) on the RhD Immunoglobulin Patient Consent form. Consent may be obtained by a midwife/nurse/medical officer. Place consent in the patient's notes to refer to prior to further doses of RhD Immunoglobulin through pregnancy.
- Prescribe RhD Immunoglobulin to all RhD negative women without antibodies (see below for doses and indications).
- Document administration or refusal on the yellow card and in patient's notes.
- Repeat blood group and antibody screen for RhD negative women prior to 28 weeks gestation (Blood bank requires a sample prior to the issue of Anti-D at 28 weeks)
- Review presence of antibodies at 28 – 30 weeks gestation. If a woman has documented RhD antibodies (not passive RhD antibodies) administration of Anti-D is not recommended. If clinician is not certain about type of antibodies discuss with blood bank or haematology staff.

#### **Routine Prophylaxis of All RhD negative women**

- Administer 625 IU of Anti-D at 28 - 30 weeks (regardless of additional doses given for sensitising events).
- Administer 625 IU of Anti D at 34 - 36 weeks.

## CLINICAL POLICIES, PROCEDURES & GUIDELINES

Approved by Quality & Patient Safety Committee  
15 May 2014

### RhD IMMUNOGLOBULIN IN OBSTETRICS cont'd

#### Sensitising events

- Administer RhD Immunoglobulin within 72 hours of the following sensitising events :
  - 1<sup>st</sup> trimester, administer 250 IU (625 IU if multiple pregnancy) for:
    - Miscarriage / threatened miscarriage
    - Termination of pregnancy
    - Ectopic pregnancy
    - Abdominal trauma
    - Chorionic villus sampling
  - 2<sup>nd</sup> and 3<sup>rd</sup> trimester, administer 625 IU for:
    - Amniocentesis
    - Abdominal trauma
    - Antepartum haemorrhage
    - External cephalic version

**NOTE:** Take Kleihauer and antibody screen prior to Anti-D administration for abdominal trauma, External Cephalic Version and antepartum haemorrhage.

#### At Delivery:

- Send **cord blood** for
  - Blood group,
  - Direct Antiglobulin Test (DAT, formerly Coombs' test)
  - +/- FBC.
- Take **maternal blood** (midwife / nurse to trigger procedure) **PRIOR** to woman leaving birthing area or theatre complex for :
  - Group and antibody screen
  - Kleihauer testing
- Administer 625 IU Anti-D to RhD negative woman who has a RhD positive baby.
  - Administer additional doses depending on Kleihauer result within 72 hours of the birth.
  - Complete blood product issue form (pink form) prior to administration of Anti-D and take to Blood Bank (via chute)
- Inform the Obstetric Registrar if the Kleihauer test is positive.

### 6. DOCUMENTATION

- Medication Chart
- Integrated Clinical Notes
- Antenatal Card
- RhD Immunoglobulin Patient Consent Form

### 7. EDUCATIONAL NOTES

- The routine prophylaxis and sensitizing event doses should be separate administrations.
- The state wide forms committee has confirmed that registered midwives and registered nurse are authorized to obtain consent or clinical declaration if declined. This must be obtained at the earliest visit and provision of information brochure given prior to obtaining consent.
- Two "Provision of information" brochures are available, one for women who has experienced a perinatal loss and one for women with a viable pregnancy.
- The introduction of RhD Immunoglobulin (Anti-D) for prophylaxis against haemolytic disease of the newborn (HDN) has been one of the most successful preventive health initiatives of the last half-century – the main cause for the reduction in morbidity and mortality from RhD disease
- Injections of RhD Immunoglobulin are made from the plasma (liquid part of blood) of carefully selected voluntary blood donors
- In Australia to date, there has never been a confirmed case of transmission of hepatitis B, C or HIV from RhD Immunoglobulin products supplied in Australia. The risk of viral and other infectious agents' infectivity, however, cannot be totally eliminated

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- The maternal sample for Kleihauer should be taken as soon as practical, as results are required for administration of Anti-D within 72 hours of delivery. The Kleihauer test quantifies the magnitude of the Fetomaternal haemorrhage.
- 625 IU Anti D should afford protection against a FMH of 6ml (12 ml whole blood) of RhD positive red cells. For haemorrhages greater than 6ml, the recommended dose is 100 IU per mL RhD positive red blood cells.
- Where large volumes of RhD immunoglobulin need to be administered or the patient has a specific contraindication to intramuscular injections, an intravenous (IV) RhD-Ig preparation should be considered. Currently WinRho 600IU, Cangene / Baxter's immunoglobulin is available from the Australian Red Cross Blood Service (ARCBS) for the IV route of administration. Specialist Haematology advice is required prior to IV administration as this can lead to clinically significant intravascular haemolysis.
- If Rh (D) Immunoglobulin has not been administered within 72 hours of either a sensitizing event or birth a dose offered within 9-10 days may still provide protection

### 8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- ACM Guidelines for Consultation and Referral Guideline
- External cephalic version

### 9. REFERENCES

- 1 RhD Immunoglobulin (Anti D) NSW Health Department PD 2006\_074, Aug 2006
- 2 2003 NHMRC Guidelines on the prophylactic use of RhD Immunoglobulin (Anti D) in Obstetrics
- 3 College Statement: Guidelines for the use of RhD Immunoglobulin (Anti D) in obstetrics in Australia. RANZCOG, March 2004
- 4 Lloyd Jones et al. A review of the clinical effectiveness of routine antenatal Anti D prophylaxis for rhesus – negative women who are pregnant. BJOG 2004; 111: 892 – 902

### REVISION & APPROVAL HISTORY

Additions to Educational Notes November 2015  
Reviewed and endorsed Maternity Services LOPs group 6/5/14  
Approved Quality & Patient Safety Committee 21/7/11  
Reviewed and endorsed Obstetrics Clinical Guidelines Group May 2011  
Approved Patient Care Committee 6/12/07  
Amended following RCA July 2007  
Reviewed December 2006 PD2006-074 / Approved Quality Council 18/12/06  
Approved Quality Council 18/4/05  
Reviewed by Director of Obstetrics, DOH Circ 2005/9, February 2005  
Approved Quality Council 18/8/03  
Approved Patient Care Committee 6/12/07

**FOR REVIEW : MAY 2019**