Protocol for Management of Rh D negative Women in Pregnancy

Unsensitized
(women without Rh antibodies)

Repeat specimen every 4 weeks
(to check for late sensitization)

Unsensitized
Sensitized
(women with Rh antibodies)

Low risk
*no fetal hydrops
*no previous affected pregnancies
*antibody < 32

Refer specialized unit

High risk
*fetal hydrops
*previous affected pregnancies
*antibody ≥ 32

Repeat maternal antibody x 3 weekly
*Ultrasound x 3 weekly

Antibody < 32
No hydrops

Manage at local hospital
Give anti-D Ig within 72 hours of a potentially sensitizing event
(see SANBS Guidelines) egs:
*amniocentesis/cordocentesis/CVS
*antepartum haemorrhage
*abdominal trauma
*external cephalic version
*ectopic pregnancy
*miscarriage
*postdelivery
*Rh negative women with blood group antibodies other than anti-D

Antibody ≥ 32
No hydrops

No anti-D given if fetus / baby is Rh negative

NB: If anti-D is given antepartum an additional dose is given postpartum in the unsensitized women

Manage at Regional hospital
Repeat antibody x 4 weekly
Do not give anti-D Ig

Refer specialized unit

In all cases submit cord and maternal bloods at delivery to blood bank

LG/JM 2005
Recommended Guidelines for the Management of Rh Alloimmunisation in Pregnancy

UNSENSITIZED Rh D NEGATIVE WOMAN

• Repeat maternal specimen every 4 weeks → to check for late sensitization
• If sensitized – manage as below:-

SENSITIZED (LOW RISK)

- No Fetal Hydrops
- No previous affected pregnancies

<table>
<thead>
<tr>
<th>Maternal Antibody Titre</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 32</td>
<td>Manage at Regional Hospital</td>
</tr>
<tr>
<td></td>
<td>Repeat antibody titre x 4 weekly</td>
</tr>
<tr>
<td></td>
<td>Ultrasound examination x 4 weekly</td>
</tr>
<tr>
<td>≥ 32</td>
<td>Refer Specialised Unit</td>
</tr>
</tbody>
</table>

SENSITIZED (HIGH RISK)

- Rapid increase in antibody level (> two fold increase in titre)
- Previous affected pregnancies
- Fetal Hydrops
- Antibodies other than Anti-D e.g: Kell, Anti-c

• Refer Specialised Unit
Antibody titre $\geq 32$
- No amniocentesis
- Monitor antibody levels 2 weekly
- Check Doppler MCA-PSV

MCA-PSV normal ($< 1.5\text{ MoM for gestation}$) and no Hydrops
- 2 weekly scans
- Delivery at 37-38 weeks

Hydrops and Antibodies (irrespective of antibody level / MCA-PSV and GA 20-34 weeks)
- Check fetal Hb and transfusion
- Deliver if $> 34$ weeks

MCA-PSV raised ($> 1.5\text{ MoM for GA}$)
- **High Risk (Hydrops and/or previous affected pregnancy)**
  - $< 34$ weeks - check fetal Hb and transfusion
  - $\geq 34$ weeks – consider delivery
- **Low Risk (No Hydrops)**
  - Repeat Doppler MCA-PSV in 2-3 days
  - If still high and no Hydrops, repeat Doppler MCA-PSV 2-3 days later
  - Persistently high – check fetal Hb and ± transfusion
  - $\geq 34$ weeks – consider delivery

Once transfusion commenced
- No need to monitor maternal antibody levels
- Weekly Doppler MCA-PSV
- Serial transfusions 2- 4 weekly
- Gestational age range for transfusion
  - $> 20$ weeks - $< 36$ weeks (Depending on accessibility of cord)
  - If HIV +ve, ideally CD4 count should be $> 200$ for intrauterine transfusion
  - Transfuse to Hb just $> 95^{th}$ centile for that gestation (or Hct 45% - 50%).