NHS
Greater Glasgow and Clyde

CLINICAL GUIDELINE

Anti-D Administration Following Potentially Sensitising Events in Rhesus Negative Women Obstetrics

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Greater Glasgow & Clyde
Obstetric Guidelines

Anti-D Administration Following Potentially Sensitising Events in Rhesus Negative Women

Adequate prophylaxis is effective in reducing the incidence of sensitisation.

Indications for administration

1. **Miscarriage / termination of pregnancy**

a. Therapeutic termination of pregnancy – Anti-D Ig should be given to all non-sensitised RhD negative women whether they are having a medical or surgical TOP, regardless of gestational age.

b. Ectopic pregnancy – Anti-D Ig should be given to all non-sensitised RhD negative women who have had an ectopic, regardless of management.

c. Spontaneous miscarriage:

Before 12+0 weeks – Anti-D Ig is not required. If, however, they have a medical or surgical evacuation of uterus anti–D Ig should be administered whatever the gestation.
After 12+0 weeks - Anti-D Ig should be given to all non-sensitised RhD negative women who have had a spontaneous complete or incomplete miscarriage.

d. Threatened miscarriage – Anti-D Ig should be given to all non-sensitised RhD negative women with a threatened miscarriage after 12+0 weeks gestation. Anti-D should be considered in non-sensitised Rh-D negative women if there is heavy or repeated bleeding or associated abdominal pain as gestation approaches 12+0 weeks.

2. Potentially sensitising events (PSEs)

Anti-D Ig should be given to all non-sensitised RhD negative women after the following:

a. invasive prenatal diagnostic procedures eg amniocentesis, CVS
b. other invasive procedures eg embryo reduction, insertion shunts, intrauterine transfusion
c. antepartum haemorrhage
d. external cephalic version
e. closed abdominal injury e.g. blunt trauma
f. intrauterine death
g. transabdominal or cervical cerclage
h. delivery of RhD positive baby
i. intra-operative cell salvage

Timing of Administration

Anti-D should be given within 72 hours of a sensitising event. If, however, this does not happen some protection may be provided even if anti-D Ig is given up to 10 days later. Women who are already sensitised should not be given anti-D Ig.

Dose of Anti-D

The standard dose is 500 IU intramuscularly. A 500IU dose of anti-D is capable of suppressing immunisation of up to 4 mls of RhD positive red cells. Intramuscular anti-D Ig is best given into the deltoid muscle.

Requesting and recording of the administration of Anti-D

Requests for RAADP are made on a named patient basis, therefore a request form should be sent to the laboratory for each patient allowing sufficient time for the laboratory to issue anti-D before their clinic appointment.
Following a potentially sensitising event, a group and retain sample should be sent to the laboratory. It is essential that the request form is fully completed and includes clinical details and gestation, in order for the laboratory to identify that anti-D (including appropriate dose) is required.
Anti-D should be prescribed in either the drug kardex or blood component prescription form. Following administration, its use should be documented in the patient's case records and hand held records.

Recurrent bleeds

<12 weeks

Anti D is not necessary in women with threatened miscarriage with a viable fetus where bleeding completely stops before 12 weeks gestation, unless bleeding is unusually heavy and/or is associated with abdominal pain.

12 – 19+6 weeks

Anti-D (500IU) should be given at a minimum of 6 weekly intervals.

20 weeks onward

Anti D (500IU) should be given at a minimum of 6 weekly intervals. Kleihauer testing should be performed after each bleed, or every two weeks if the bleeding is ongoing. If the bleed is > 4mls, a further dose of Anti-D is administered, (125IU/1 ml fetal red cells). All Kleihauer results > 4mls should be repeated after 72 hours, and if still positive, should be discussed with the on-call haematologist.

Kleihauer Testing

This is not necessary under 20 weeks gestation but should be performed following events after 20 weeks in order to assess the extent of any fetomaternal haemorrhage and ensure sufficient anti-D has been administered. When the Kleihauer indicates a bleed > 4mls, the appropriate additional dose of anti-D (125IU/1ml fetal bleed) should

be administered as soon as possible. Repeat Kleihauer should be undertaken after 72 hours of final dose to determine if a further dose of anti-D is required.

Routine Antenatal Anti-D Prophylaxis (RAADP)

1. The routine use of RAADP should not be affected by previous anti-D prophylaxis given for sensitising events earlier in the pregnancy.

2. If the woman has had RAADP and has an antenatal sensitising event at any point in the pregnancy after this, then she should have a further dose of 500IU anti-D (or more if the Kleihauer is > 4ml).

3. Administration of post-partum anti-D prophylaxis should not be affected by whether or not RAADP or AADP as a result of sensitising event have been given.

D variant red cells

Some individuals have weak expression of RhD and are known as D variants. These patients should be considered to be RhD negative and should receive anti-D for potentially sensitising events and RAADP while further testing is being carried out to confirm the RhD status.
Once the RhD status has been confirmed, the lab will issue a report to state whether patient should be treated as RhD negative or positive and will issue anti-D as appropriate if RhD negative.

It is important to note that such women may have been told previously that they are RhD positive if they are blood donors. This may give rise to confusion. If there is uncertainty about a patient's RhD status this should be discussed with Blood Bank or the haematologist on call.

Passive Anti-D

Passive anti-D may be detectable by enzyme or antiglobulin techniques for many weeks or months after administration of anti-D. Its presence should not be a contraindication to giving further doses of anti-D should the clinical situation arise.

Cell salvage

When intra-operative cell salvage is used during Caesarean section, reinfused blood may contain fetal red cells. The volume of fetal red cells in reinfused blood can vary, however it is recommended that a minimum dose of 1500IU anti-D is administered immediately after reinfusion of salvaged cells if the baby is shown to be RhD positive (or blood group unknown). Maternal samples should be taken 30 – 45 mins after reinfusion of salvaged red cells and depending on the Kleihauer result, an additional dose of anti-D should be administered if necessary and follow up Kleihauer after 72 hours of final dose.

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Approval

GONEC
GG&C Overarching Transfusion Committee