Whittington Health NHS

Routine Antenatal Anti-D Prophylaxis for Rhesus D-negative women in Pregnancy

Subject:	Routine Antenatal Anti-D Prophylaxis for Rhesus D-negative women in Pregnancy
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Key Words:	Anti-D, Prophylaxis, Rhesus D negative, pregnancy

Version Control Sheet

Version	Date	Author	Status	Comment
4	2011	Miss Gaye Henson. Angela Dietrich, , Logan Van Lessen, Louise Brennan. Abdul Adamu,	Cons Obstetrican Midwives Blood transfusion practioner.	Miss Henson and A.Dietrich have left the trust.
5	2014	Peer reviewed and A.Adamu		Guideline reviewed and updated

Key words: Anti-D, Prophylaxis, Rhesus D negative, pregnancy

➢ Criteria for use

- To ensure that all Rhesus D (RhD) negative pregnant women are identified at booking or emergency event and offered routine antenatal anti-D prophylaxis (RAADP) to prevent sensitisation of the mother and thus rhesus iso-immunisation of the fetus.
- Anti-D is NOT intended for use in Rh(D) positive individuals, nor individuals already immunised to Rh(D) antigen.

➢ Investigations:

- Blood to be taken for blood and rhesus group as part of the routine antenatal screening tests at the booking appointment.

➢ Specific management

Women found to be RhD negative on the antenatal booking blood tests will have their notes marked with a red sticker on the maternity notes and on the first page of the District File.

The information will be clearly marked in the box for risk factors on the Antenatal and Labour Ward pages

This must be done by the midwife checking the notes and filing the results.

The doctor or midwife seeing the woman for the first appointment after booking should ensure that the notes have been appropriately marked.

1. The woman must be informed of the result and given the patient information leaflet “Blood Groups and Red Cell Antibodies in Pregnancy”. Copies of this leaflet are available in the Antenatal Clinic and can also be downloaded from:
   http://hospital.blood.co.uk/library/pdf/bg_rca_pregnancy.pdf
   The woman must be informed that she will need to have a blood test taken for rhesus antibodies at 28 weeks of pregnancy. She will then be given an injection of anti-D immunoglobulin (Rhophylac Anti-D 1500iu) intramuscularly at 28 weeks of pregnancy.

2. The NICE guideline states that a woman can opt out of the anti-D injection if:
   - She is in a stable relationship with the father of the child and the father is known to be RhD negative blood group
   - She is certain that she will not have another child after her current pregnancy

Because of the unreliability associated with the above we strongly recommend that ALL women who are RhD negative are offered RAADP

- If she does opt out then this must be clearly documented in the notes and signed and dated by the doctor or midwife discussing this with her.

- Women who cannot receive treatment with anti-D due to strongly held beliefs regarding blood products should be informed that no alternative treatment option exists at the Whittington Hospital. The risks of isoimmunisation and the effects on subsequent pregnancies should be explained. The woman’s decision and details of the discussion must be clearly documented in the notes. The woman’s named consultant should also be informed.

3. Anti-D immunoglobulin will be prescribed by a doctor on the in-patient prescription chart. This chart should be placed in the woman's maternity folder.

4. **It is important that all blood tests (especially those sent by a midwife in the Community or a GP) for rhesus antibodies are sent to the laboratory at the Whittington Hospital and not to another hospital.**

5. For women identified as RhD negative, the midwife will request anti-D immunoglobulin at 27 weeks of pregnancy. This will ensure that anti-D is available at the woman's 28 week appointment with the midwife or doctor.
6. The midwife will inform Blood Transfusion Lab (via fax to extension 5013) that anti-D immunoglobulin is required and give Blood Transfusion Lab the woman's identification details, that is name, hospital number, and date of birth. Anti-D immunoglobulin will be supplied by the Blood Transfusion Lab on a named woman's basis only. The anti-D dose is signed out, in the blood transfusion Lab ledger, by the person collecting the anti-D dose, (that is the Midwife or HCA).

7. The midwife or doctor who sees the woman at 28 weeks of pregnancy must ensure that:
   - a blood sample for group & save and antibodies **MUST** be taken **PRIOR** to the administration of anti-D.
   - anti-D immunoglobulin 1500iu should be administered after blood sample taken
   - **anti-D is given in the deltoid muscle rather that the gluteal region to ensure optimal absorption. Injections in the gluteal region often only reach the subcutaneous tissues, which may delay absorption.**
   - **Anti-D can also be administer directly into a vein (if body mass index (BMI) is greater or equal to 30 kg/m2**

- woman receives the leaflet ‘Postnatal anti-D’ available in the Antenatal clinic

8. **Women who are given anti-D must be advised to remain in the hospital or community clinic for 20 minutes due to the potential risk of anaphylaxis.**

In the rare event of anaphylaxis this must be treated as an emergency situation. Dial 2222. State ‘Maternal Cardiac Arrest’ and the ward area. Place the woman in the recovery position and administer facial oxygen.

If anaphylaxis occurs in the community dial 999. Place the woman in the recovery position and administer oxygen, if available.

Details of any adverse reactions must be documented, including actions taken.

All adverse drug reactions must be reported to the MHRA (Medicines and Healthcare Products Regulatory Agency) and CHM (Commission on Human Medicines) via the Yellow Card Reporting System

(see www.yellowcard.gov.uk)

The midwife who administers the anti-D injection must document this in the woman’s maternity notes, on the prescription chart and sign and date the peel-off sticker on the Traceability Tag. The completed peel- off sticker should be placed in the woman’s notes and the Traceability Tag returned to Blood Transfusion. (**See Appendix 1: Anti-D pathway)**

10. If antibodies are detected by the laboratory the woman should be referred to Fetal Medicine (FMU), which can be done electronically via Anglia ICE. Consultant must be informed and a management plan regarding frequency of hospital visits and blood samples clearly documented in the notes. The blood result forms must be seen by the Consultant and signed.

11. **These principles apply to women found to have other blood group antibodies such as anti-Kell or anti-Duffy.** It should be remembered that if these women are also RhD negative they should be given anti-D prophylaxis.

12. Women known to have anti-D antibodies **should <u>not</u> be** given anti-D prophylaxis.

13. Anti-D should be given within 72 hours to all RhD negative women, after potentially sensitising events. This includes:

- Chorionic Villus Sampling
- Amniocentesis
- Ante Partum Haemorrhage (APH)
- External Cephalic Version
- Fall / abdominal trauma
- Intrauterine death
- Miscarriage
- Threatened miscarriage after 12 weeks.
- Termination of pregnancy

Anti-D should still be given even if RAADP has been given at 28 weeks of pregnancy.

14. If recurrent bleeding occurs in a RhD negative woman after 20 weeks gestation anti-D immunoglobulin will be required at a minimum of 6 weekly intervals. A fetomaternal haemorrhage (FMH) test should be performed every 2 weeks and, if FMH is detected, additional anti-D will be required regardless of the presence of passive anti-D. If FMH is detected, follow-up samples should be taken after 48 hours to check that the fetal cells have cleared.
15. **If you discovered that your client received Anti-D somewhere else, not at Whittington Hospital, please communicate the information to the transfusion lab by writing on the blood sample request form.**

16. Postnatal administration of anti-D

- A cord blood sample should be taken within **30 minutes of delivery** to assess the baby's ABO and D type
- A minimum of 4mls of blood is required
- The sample should be labelled as a '**Priority Specimen**' and will be collected during the regular Labour Ward / Birth Centre collection times. If a cord blood sample is received in the laboratory between 9 am – 9 pm a result will be issued within 2-3 hours. This service is available every day.If the sample is sent after 9 pm it will be processed **the following morning** and the result should be available by 11 am.
- The Kleihauer test should be performed no sooner than 1 hour following delivery, in order to estimate the level of FMH that may have occurred during pregnancy or delivery
- The midwife caring for the RhD negative woman must check the baby's blood group result on Anglia ICE and order anti-D if the baby is RhD positive. The baby's blood group should be documented in the maternity notes and the mother to be informed.
- **If the baby is RhD negative anti-D should not be ordered. The baby's blood group must be recorded and the reason for not giving anti-D should be clearly documented.**

- All Rh (D) negative women should be advised to wait for the result of their baby's blood group before going home, as they will need to have anti-D if their baby is RhD positive. **For successful immunoprophylaxis, non- sensitized RhD negative women must be given anti-D within 72 hours of delivery if their baby is Rh D positive.**
- If a woman is unable to wait for her baby's blood group result she must be advised to contact the maternity unit on the evening of discharge or the following day for the result. She will be asked to return to the hospital if anti-D is required. Alternatively, the woman can opt to have anti-D administered without waiting for the result of her baby's blood group.

- **Women who wish to leave the hospital before the result of their baby's blood group is obtained and have opted <u>not</u> to have anti-D must be asked to complete a self- discharge form**.

NB: Anti-D can be given with live vaccines such the MMR vaccine, but should <u>not</u> be given in the same arm or the efficacy of the vaccine may be impaired.

➢ Audit Standards and compliance

Auditable standards include:

Standard	**Antenatal anti-D**
1	There should be documented evidence of a woman's RhD negative status.
2	There should be documented evidence that all RhD negative women have been informed of their RhD negative status.
3	All Rh D negative (non-sensitized) women must be offered anti-D (1500iu) at 28 weeks of pregnancy.
4	All Rh D negative (non-sensitized) women must be offered anti-D (1500iu) within 72 hours of a potentially sensitising event.
5	There should be documented evidence that anti-D has been administered (including anti-D batch number)

Standard	**Postnatal anti-D**
1	Cord blood samples should be obtained following all deliveries where women are known to be RhD negative.
2	The Kleihauer test should be performed one hour following delivery
3	All RhD negative women (non-sensitised) should receive anti-D within 72 hours of delivery if their baby is Rh D positive.
4	There should be documented evidence that anti-D (1500iu) has been given following delivery (including anti-D batch number)

Audit Proforma

Name Hospital No:

Date of Delivery:

Blood group and antibody status:

Documented in maternal notes Yes/No

Documented in district file Yes/No

Documented evidence that woman has been informed of Rhesus status Yes/No

Antenatal anti-D administration

Anti-D given at 28/40 Yes/No
(If No, gestation given and reason not given at 28/40)

Traceability Tag completed Yes/No

Following a sensitising event

Date and type of event:-

Anti-D given with 72 hours Yes/No (If No, reason for omission/delay)

Traceability Tag completed Yes/No

Postnatal anti-D administration

Cord blood obtained Yes/No
(If No, reason not obtained)

Kleihauer Test performed Yes/No

Anti-D given within 72 hours Yes/No
(If No, reason for omission/delay)

Traceability Tag completed Yes/No

Compliance:

The guideline will be audited:

Continuous rolling audit	[ ]
Yearly	[X]
Six monthly	[ ]
Individualised review date if low frequency procedure or condition	[ ]

Size of audit: The aim will be to audit 1 % of all pregnant women known to be Rh-D negative.

The guideline will be disseminated:

1. Electronically via the Whittington Intranet> Guideline > Maternity section
2. Paper copy filed in the appropriate clinical area
3. All staff notified of new guidelines via e-mail and departmental newsletter
4. All staff made aware of guidelines and how to access them at induction

Presentation of the audits will be made to:

Departmental audit meeting	[X]
Perinatal Meeting (Monday)	[ ]
Other	[ ]

Reports of the completed audits will go to:

Antenatal & Newborn Screening Committee	[X]
Clinical Risk Group	[X]
Women's Health Clinical Governance Group	[X]
Trust Clinical Governance Group	[ ]

➢ Useful contact details

Haematology blood transfusion laboratory: ext 5766
Antenatal Screening Co-ordinator: ext 5108 or mobile: 07766 205 362

➢ References

1. Routine antenatal anti-D prophylaxis for women who are rhesus D negative. Technology appraisal guidance No 156. National Institute for Clinical Excellence. August 2008.
2. Guidelines for the use of prophylactic anti-D Immunoglobulin British Committee for Standards in Haematology June 2008
3. Immunisation against infectious disease. The Green Book. September 2006
4. EU Blood Safety Directive (2005/2002/EC)

WHITTINGTON HOSPITAL NHS TRUST

ANTI-D PATHWAY FOR MIDWIVES

Each Midwifery Team needs to identify women requiring anti-D prior to attending their antenatal clinic appointment.
Women must not be sent to the Antenatal Clinic at the Whittington to have anti-D injections from the community.

Step 1

Identify Rhesus negative women prior to antenatal clinic appointments. Anti-D is to be administered between 28 - 30 weeks gestation.
Ensure prescription chart is written up

→ ***It is the midwife's responsibility to ensure that anti-D is correctly administered to women who are Rhesus D negative in pregnancy. Women must be given accurate written information on anti-D.***

Step 2

Inform the Blood Transfusion laboratory of woman's identification details ie: Name, Hospital Number, Date of Birth and Gestation.

→ ***This must be communicated to Blood Transfusion 3 working days before anti-D is required for administration so that it can be collected from the laboratory on the day of the clinic appointment.***
Anti-D that is collected prior to administration must be stored in the ANC fridge

Step 3

Anti-D must be collected on a named woman basis only and signed out in the blood transfusion laboratory ledger by the midwife or HCA, who collects the anti-D dose.

→ ***Non-administered anti-D must be returned to the blood transfusion laboratory within 7 working days so that a record is kept.***

Step 4

Take blood for Rhesus antibodies before administration of anti-D dose. Woman's consent must be clearly documented.

→ ***When anti-D is administered, document in notes, prescription chart and traceability tag. Return traceability tag to Blood Transfusion.***

Appendix 2

Guidelines for the use of prophylactic anti-D immunoglobulin - SUMMARY

Gestation	Summary of tests and treatment
< 12 weeks	No action for uncomplicated miscarriage or painless vaginal bleeding. Where bleeding is heavy or repeated or where there is associated abdominal pain (particularly if these events occur as gestation approaches 12 weeks) check ABO and D type to confirm D negativity. Confirm absence of anti-D. Administer 1500 iu anti-D, i.m
12 weeks to term	For all potentially sensitising episodes ABO and D type to confirm D negativity. Confirm absence of immune anti-D. Administer 1500 iu anti-D, i.m.
28 weeks	**RAADP.** Administer 1500 iu prophylactic anti-D. The routine sample for blood group and antibody screen as required by BCSH Guidelines (BCSH c, 2006) must be taken **PRIOR** to this injection.
DELIVERY	**TESTS ON BABY** – Take cord blood to establish ABO and D type. **MATERNAL TESTS** – Perform Kleihauer test. Administer 1500 iu anti-D to the mother following delivery if baby is RhD positive.

For further information please contact Transfusion Lab Ext. 5766 between 09:00 - 17:00, Mon – Friday.

What key element(s) need(s) monitoring as per local approved policy or guidance?	Who will lead on this aspect of monitoring? Name the lead and what is the role of the multidisciplinary team or others if any.	What tool will be used to monitor/check/observe/Assess/inspect/ authenticate that everything is working according to this key element from the approved policy?	How often is the need to monitor each element? How often is the need complete a report ? How often is the need to share the report?	What committee will the completed report go to?
Element to be monitored	**Lead**	**Tool**	**Frequency**	**Reporting arrangements**
Antenatal Anti D administration. Anti D sensitisation Post natal Anti D administration	Antenatal Lead	Audit Proforma	As required	Maternity Guideline and Audit Group.