The Shrewsbury and Telford Hospital NHS Trust

Anti D For Rh-D Negative Women in Early Pregnancy

Version 2

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Care Group:	Women and Children's
Frist Implemented:	March 2016
This Version Implemented:	26th February 2024
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Keywords:	Anti D; Rh negative; Haemolytic disease of newborn
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In Consultation:	Original Maternity guidance in consultation with: Mike Taylor Blood Bank Haematologist Guideline Midwife, Deputy Head of Midwifery

For quinquennial review

Version	Implementation Date	History	Ratified By	Full Review Date
1	7th March 2016	Minor amendment	Gynae Governance	February 2019
1.1	6th March 2018	Minor amendment – (4.3 ensure need for Anti-D documented in post-op instructions)	Gynae Governance	March 2023
1.2	May 2022	Minor amendment to 4.3	Gynae Governance May 2022	March 2023- *review extended to Feb 2024*
2	26th February 2024	Full review	Gynae Governance	February 2027

1.0 Introduction

1.1 Rh D antigens are carried on the red blood cells of Rh positive people, and are absent on those who are Rh negative.
If any of the red blood cells of a Rh positive baby pass into the maternal circulation, during pregnancy or birth, the mother may be sensitised to the RhD antigen on the baby's red blood cells. The maternal antibodies produced following a sensitising event can attack the red blood cells of any subsequent Rh positive babies in utero, causing haemolytic disease of the newborn.

1.2 Isoimmunisation may occur following previous fetal-maternal haemorrhage, previous miscarriage, spontaneous or elective abortion, amniocentesis and other invasive procedures (NICE, 2008). Approximately 50% of Rh D sensitisation occurs as a direct result of a silent, spontaneous fetal-maternal haemorrhage, which is not detectable during a routine pregnancy (RCOG 2002). Sensitisation can also occur during spontaneous birth.

1.3 Administration of Anti D is recommended following any potentially sensitising event, and following the birth of a Rh positive baby to a Rh negative mother.

1.4 Routine antenatal Anti D prophylaxis (RAADP) is recommended for pregnant women who are at risk of sensitisation to the RhD antigen (NICE, 2008;2014).

2.0 Aim

To prevent the babies of Rh negative women developing haemolytic disease of the Newborn.

3.0 Objectives

3.1 EPAS nurses will offer verbal and written information about the significance of having a Rh negative blood group in pregnancy. Women will be offered Anti D Prophylaxis with written and verbal explanation of the rationale for use.

3.2 EPAS Nurses will administer prophylactic Anti D (with consent) 1500 IU therapeutically following a sensitising event up until 15+6 weeks.

4.0 Definitions

4.1 Isoimmunisation

Development of a specific antibody against an antigen derived from the red blood cells of an individual of the same species; in this case, maternal antibodies against fetal antigens.

4.2 Sensitising event

Any event that can lead to the development of antibodies and therefore isoimmunisation.

5.0 Criteria for administration of Anti-D

Offer Anti-D to a woman with:

- **Any sensitising event over 12 weeks gestation**
  - Any vaginal bleeding >12/40 viable pregnancy
  - Spontaneous, complete or incomplete miscarriage >12/40
  - Medical management of miscarriage >12/40
  - Abdominal/pelvic trauma
- **All surgical management of miscarriage, molar pregnancy and ectopic pregnancy at any gestation.**

Do not offer anti-D immunoglobulin prophylaxis to women who are under 12 weeks and:

- Receive solely medical management for an ectopic pregnancy or miscarriage
- have a threatened miscarriage or
- have a complete miscarriage or
- have a pregnancy of unknown location.

- If patient has continuous vaginal spotting Anti-D to be repeated after 6 weeks
- If patient has new (separate) episode of significant vaginal bleed Anti-D to be repeated (no time scale)
- Please ensure need for anti D is documented in post-op instructions.

6.0 Process

6.1 Antenatal Care

The blood group will be determined via the serology bloods taken at the Antenatal Booking Visit or at the Early Pregnancy Assessment Unit (EPAS).
It is the responsibility of the EPAS nurse to obtain and document the results. If the woman is confirmed to be Rh negative, it is recommended that all Rh negative women will have their status for Anti D on the Maternity Information System (MIS) to alert other Midwives and Doctors. **EPAS should not administer Anti D without access to this serology result.**

6.2 Prophylaxis following sensitising events up until 20 weeks

The **minimum** recommended doses of anti-D following a sensitising event before 20 weeks gestation is 250iu and after 20 weeks gestation is 500iu (BCSH, 2014).

Locally SaTH provide a prefilled syringe dose of 1500iu it is acknowledged that the dose given to women may be higher than clinically indicated (BCSH, 2014; RCOG, 2011).

Do not use a Kleihauer test for quantifying feto-maternal haemorrhage.

6.2.1 Local dose for sensitising events in early pregnancy

After any potential sensitising event (any event meeting the criteria in section 5.0) before 20 weeks gestation, the Midwife/Nurse/Doctor will offer **1500iu anti-D.**

Please note that in all sensitising episodes administration if consent is given within 72 hours, 72 hrs will be regarded as a target timeframe. However, Anti D can still be given up to 10 days following a sensitising event as it can still provide some protection.

6.3 Requesting, Administration and Documentation

6.3.1 Requesting

Anti-D will be issued on a named patient basis to any Rh negative woman requiring Anti-D in the event of a sensitising event

Please refer to the attached appendices
Blood Bank Request Form (Appendix 1)
Affixed sticker supplied with Anti-D (Appendix 2)

6.3.2 Administration and injection site

National guidance on the most suitable location for nurses to administer anti-D is unavailable. Intramuscular anti-D Ig is best given into **the deltoid muscle** as injections into the gluteal region often only reach the subcutaneous tissues and absorption may be delayed.

6.3.3 Documentation

The administration of anti-D will be documented as follows

- Affixed sticker pink in colour supplied with Anti D will be placed in the Hospital Records **(see Appendix 2)**
- A copy of affixed sticker will be sent back Blood Bank **(see Appendix 2)**
- Maternity Information System (MIS (if using realtime workflow)).
- Prescription Chart (as per Patient Group Directives).

6.4 Women who decline Anti D

Rh negative women will have sufficient information to enable them to make an informed choice about prophylaxis. If women decline RAADP their decision must be respected and documented by the Midwife/Nurse

7.0 Training

Nurses and Doctors will ensure that they keep up to date with their practice and in accordance with the SaTH Training Policy.

8.0 Monitoring and Audit

The requirement to undertake audit/monitoring will be identified via legal cases, high risk case review, serious incidents, and where there are trends in incident reporting
Audit/Monitoring will follow the process within the Women and Children's Monitoring and Audit Procedure for Assurance (105) and SaTH Annual PGD Audit.

9.0 References

British National Formulary (April 2013) Anti-D (Rho) immunoglobulin.

British Committee for Standards in Haematology (2014) Guidelines for the use of prophylactic anti-D immunoglobulin. Available from http://www.bcshguidelines.com/documents/Anti-D_bcsh_07062006.pdf

National Institute for Health and Clinical Excellence (2008) Routine antenatal anti-D prophylaxis for women who are Rh D negative. NICE technology
appraisal guidance 156.

NICE clinical guideline NG126: Ectopic pregnancy and miscarriage: diagnosis and initial management August 2023 update

NMC (2008) Standards for Medicines Management. Nursing and Midwifery Council, London.

SaTH Maternity Guideline on Anaphylaxis.

Sath Maternty Guideline on Antepartum Haemorrhage.

Urbaniak SJ, Greiss MA (2000) Rh D haemolytic disease of the fetus and the newborn. Blood Reviews (14) pp 44-61/

Appendix 1 Anti-D request form

Shrewsbury and Telford Hospital NHS Trust Blood Transfusion Laboratories

The Shrewsbury and Telford Hospital NHS
NHS Trust

REQUEST FOR ANTI-D IMMUNOGLOBULIN INJECTION

For the prevention of Haemolytic Disease of the Foetus and Newborn

Dose Required: 1500IU 250IU Other..... Note: Each request will require a separate form.

REQUEST DETAILS	
Date of Request	*Date Required*
Gestational age	*Time Required*
Reason for Anti-D (please tick) Routine 28 week prophylaxis [ ] Routine prophylaxis at delivery [ ] Potentially sensitising event [ ] *(Please state nature of event below)* ---------- *Other relevant information*	

PATIENT DETAILS	
Surname	*Unit No*
Forename	*D.O.B.*
Post Code	*Consultant/GP*
Patient Location	*Known Blood Group*

REQUESTOR DETAILS	
Name (print)	*Signature*
Position/Grade	*Contact No*

LABORATORY USE		
Lab No.	*Blood Group & Antibody Check*	*Laboratory Comments*

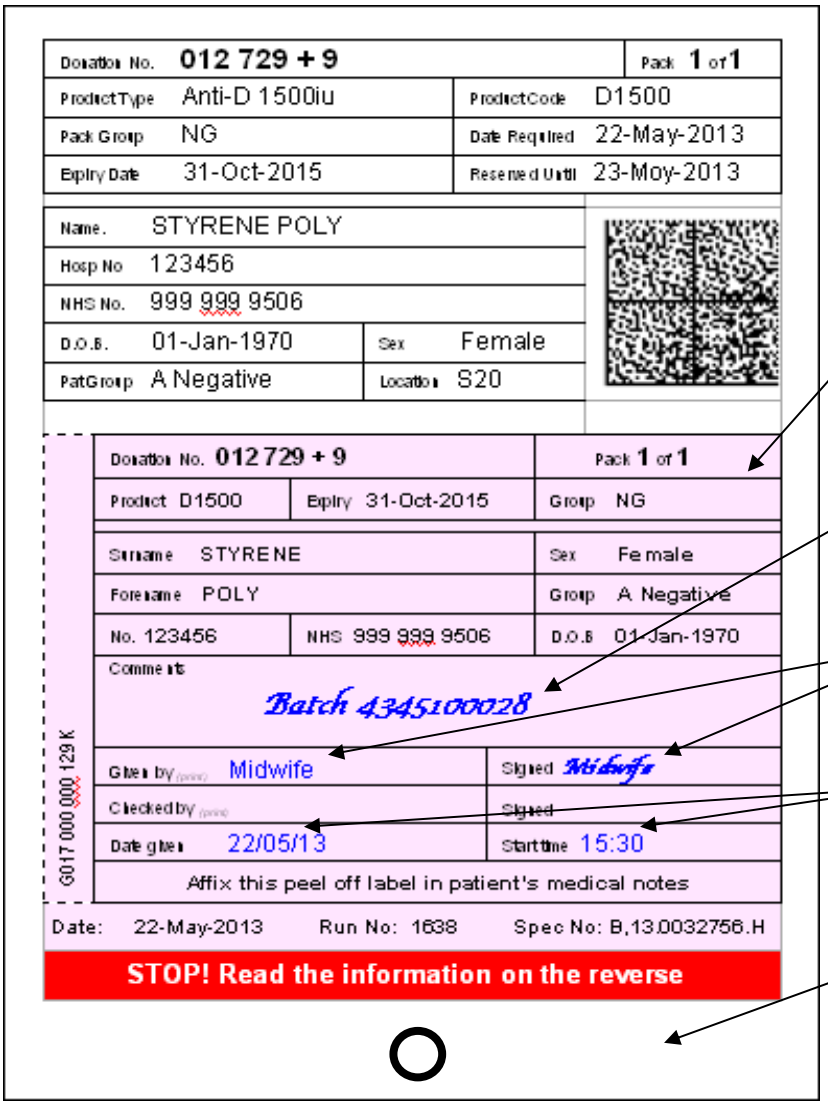
Version 1.01 (May 2013)

Appendix 2 Recording The Administration Of Anti-D Injections

Anti-D collected from Blood Bank will be labelled with labels like that shown below. The information of the reverse of the label refers specifically to fresh blood products but the guidance on patient checking is equally valid for Anti-D.

1. Before administering the injection, perform all your usual checks and also check that label matches the details on the product box. The codes D1500 and D250 refer to 1500iu and 250iu doses of Anti-D respectively. The code NG means 'No Group' as the product itself does not have a blood group. Note that the batch number cannot be printed on the label but the unique number (e.g. 012 729 + 9) can be checked.
2. Peel off the pink sticker from the label and affix in the patient's record.
3. On the pink label, write; the batch number of the product, your printed name, your signature and the date and time given. There is also space for a checker to be recorded if one is used. This is not mandatory for Anti-D.
4. Remove the remainder of the label from the product box and return ALL of it back to Blood Bank.

Doing this will maintain a full audit trail which will be acceptable to the MHRA.



Peel off the pink part of the label and stick in patient's record

Write Batch Number here

The batch number is also traceable through the Blood Bank computer if required

Print name and sign here

The line below can be used by a second checker if a second check is performed

Write date and time of administration here

Detach the main part of the label from the box and return to Blood Bank