‘Anti-D’ treatment for pregnant women with a ‘rhesus negative’ blood group

Introduction
You have been given this leaflet because your blood sample which was used to identify your blood group and ‘rhesus factor’ has shown than you are ‘rhesus negative’. This leaflet explains about the ‘rhesus factor’, what it means for a pregnant woman to have a ‘rhesus negative’ blood group, the possible risks to the unborn baby (and following pregnancies) and the anti-D treatment routinely given during pregnancy to protect your baby.

What does ‘rhesus negative’ mean?
The ‘rhesus factor’ is found on red blood cells and is inherited from your parents. If a blood test shows that there is no ‘rhesus D factor’ on the surface of your blood cells then you are classified as ‘rhesus negative’ (RhD negative). Approximately 21% of the UK population are Rhesus negative.

What does this mean for pregnant women?
We do not know which rhesus factor your unborn baby is, but if it is ‘rhesus positive’ (RhD positive) and some of the baby’s blood mixes with your blood while you are pregnant, your body will start to produce antibodies against the rhesus D factors in the baby’s blood. Your antibodies can then cross the placenta and attack the blood cells of the unborn baby.

When can a baby’s blood mix with the mother’s?
The most common time for a baby’s blood to mix with the mother’s is at the time of birth, but other times it may happen are:
• During miscarriage or termination (your antibodies could be a threat to later pregnancies)
• If you have tests such as amniocentesis or chronic villus sampling
• If you have any vaginal bleeding
• If the baby has to be turned to the ‘head down’ position for birth (known as external cephalic version)
• Following an accident.

An event like any of these that may cause a woman to produce antibodies is known as a ‘potentially sensitising event’ and in every case the woman would have a blood test and be offered ‘anti-d’ treatment in the form of an injection, to help prevent the production of antibodies.

Are antenatal anti-d injections routinely given to Rh negative pregnant women?

All pregnant women found to be Rh negative, are offered a single dose of anti-d at 28 to 30 weeks pregnant. The injection is given into the muscle, usually in the upper arm, at the 28 week ante-natal appointment with your midwife and you are encouraged to stay for a further 15 to 20 minutes just to make sure that there are no side effects.

If you experience a ‘potentially sensitising event’ during your pregnancy and accept the anti-d injection at that point, you will still be offered the routine dose at 28 to 30 weeks.

What is anti-d?

Anti-D immunoglobulin (antibody) is made from a part of the blood called plasma which is collected from blood donations. The production of anti-d immunoglobulin is very strictly controlled to ensure that the chance of a known virus or other unwanted agent being passed to the person receiving it is very low, approximately 1 in 10,000 billion doses.

What are the risks if I choose not to have anti-d?

• You may miscarry future pregnancies

The risks to your baby can be mild to severe, including:
• Developing a condition called Haemolytic Disease of the Newborn (HDN)
• Developing anaemia (lack of iron in the blood), or jaundice, both before and after birth
• Stillbirth (very rarely)
• Severe disability or death after birth (very rarely).

Some pregnant women may choose not to have anti-d in the fear of having an allergic reaction, but these are rare.

How will we know what my baby’s blood group is?

After you have given birth, a sample of blood will be taken from you and from the cord of the placenta and sent to the hospital laboratories for investigation. If your baby is Rhd negative like you, no further treatment is required, but if the baby is Rhd positive you will be offered another dose of anti-d to be given within 72 hours following the birth.

Contact information

Please contact your community midwife if you have any further queries about anti-d. The number for your community midwife will be on the front of your orange hand held notes.

If you are unable to contact your community midwife and your enquiry is urgent, please contact:

Maternity Triage
Gloucestershire Royal Hospital
Tel: 0300 422 5541
Open 24/7 365 days a year.

Further information

NICE (National Institute for Clinical Excellence) recommends that all Rhd negative pregnant women should receive the anti-d immunoglobulin injection at 28 pregnant.

NICE guidelines
Website: www.nice.org.uk/TA156

NHS Choices
Website: http://www.nhs.uk/Conditions/Rhesusdisease/Pages/Prevention.aspx

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