What is the evidence that routine Anti-D prophylaxis is effective?

- Evidence clearly indicates that antenatal administration of Anti-D can result in a reduction of sensitisation* of 70-78%.
- Administration of Anti-D at 28 and 34 weeks during pregnancy to Rh(D) negative women who have not actively formed their own Anti-D will result in a reduction of sensitisation from about 1% to 0.3%.

*read the inside of this brochure for an explanation of sensitisation.

What will happen if I choose not to have antenatal prophylaxis?

- The risk of Anti-D sensitisation will increase. It is unlikely that this will have any impact on the current pregnancy.
- If you do become sensitised then this might lead to problems in future pregnancies, which will need to be more closely monitored.

Further Information

The following organisations can provide more information and support for pregnant women who are Rh(D) negative.

However, it is advised that your follow-up is always managed by your doctor or midwife.

- New Zealand Blood Service
  www.nzblood.co.nz
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists
  www.ranzcog.edu.au
- New Zealand College of Midwives (NZCOM)
  www.midwife.org.nz
- National Institute for Health and Clinical Excellence
  www.nice.org.uk

Leaflet prepared and provided by the New Zealand Blood Service.
Private Bag 92071, Victoria Street West, Auckland 1142.
71 Great South Road, Epsom, Auckland.
Telephone: 09 523 5733 Fax: 09 523 5754

nzblood.co.nz

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Routine Antenatal Anti-D Prophylaxis

INFORMATION

For Pregnant Women who are Rh(D) Negative

You have been given this leaflet because your Midwife or Doctor considers that you might benefit from antenatal Anti-D prophylaxis.

As with any treatment you have the right to decide whether you want to have the treatment or not. You will be asked to sign a Consent Form to show that:

- the benefits and risks of Anti-D have been explained to you,
- you have been able to ask any questions about the treatment, and
- you agree to receive the treatment.

This leaflet provides information to assist you to make an informed decision whether or not to receive antenatal Anti-D prophylaxis. It provides information based on clinical best practice guidelines developed by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG).

Are there any risks to the baby or mother from the administration of Anti-D?

- Mild allergic reactions can occur in the mother but these are rare.
- Severe reactions in the mother are very rare and have not been life threatening.
- Some Anti-D will cross from mother to fetus but there have been no reports of adverse effects on the fetus.

The Rh(D) Blood Group

Human red blood cells carry many substances called antigens on their surfaces.

Women who are Rh(D) positive have a substance called D antigen on the surface of their red blood cells. Rh(D) negative women do not have any D antigen present.

In New Zealand the Rh(D) negative blood group is present in approximately:

- 17% of Europeans.
- Approximately 3% of Māori and 7% of Māori / European people.
- Less than 1% of Pacific Island people.
- Approximately 1% of Asian women.

Pregnancy in Rh(D) negative Women

A woman who is Rh(D) negative can carry a baby who is Rh(D) positive if the baby's father is Rh(D) positive.

During pregnancy, or during delivery of the baby, there is a risk of small amounts of the baby's red cells entering the mother's bloodstream. The mother's immune system may recognize this as foreign to her because the fetal cells have D antigens on them. This can cause the mother to have an immune response to the D antigen and the mother will become "sensitised" as she produces antibodies against the D antigens.

If she becomes pregnant again with another Rh(D) positive baby, the immune response will be quicker and greater. The Anti-D antibody, also called immune Anti-D, can cross the placenta and attach to the D antigen on the baby's red blood cells. This can cause harm to the baby and result in a condition called haemolytic disease of the fetus and newborn, which results in anaemia and jaundice.

Routine Antenatal Anti-D Prophylaxis

The aim of routine Anti-D prophylaxis is to try and prevent this sensitisation from taking place.

Prophylaxis is the word given to a treatment that is used to prevent something from happening. Anti-D immunoglobulin is the product used for this purpose and is given as an injection.

The aim of antenatal Anti-D prophylaxis is to remove any Rh(D) positive fetal cells in the mother's bloodstream before her immune system can respond to the D antigen. The injection of specially manufactured Anti-D into the pregnant mother effectively removes any D positive fetal red blood cells.

Anti-D prophylaxis is routinely given at 28 weeks and 34 weeks of pregnancy to pregnant Rh(D) negative women who are not already sensitised (this can be identified by the standard testing carried out during pregnancy). Circumstances may warrant that only a single larger double dose can be administered at around 30 weeks of gestation.

How is Anti-D Immunoglobulin produced?

Anti-D is made from a part of blood called plasma that is collected from blood donors.

The production of Anti-D immunoglobulin is very strictly controlled to ensure that the risk of any virus being transmitted is very rare. It has been estimated that this risk is considerably less than 1 in a million doses.