

I NEED TO KNOW ABOUT BLOOD PRODUCTS IN PREGNANCY

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What blood products may be needed during or after pregnancy?

Red cells, platelets, fresh plasma products and fractionated plasma products may be necessary during pregnancy, during delivery, or following delivery.

What conditions may require blood products?

During or immediately after pregnancy, several situations may require treatment with blood products, including:

- anaemia (low haemoglobin levels)
- bleeding
- prevention of haemolytic disease of the newborn (see our fact sheet *What is RhD Immunoglobulin Used For*, Vol 2, No 6).
- immune platelet disorders.

What causes anaemia in pregnancy?

A number of changes to the composition of the blood occur during pregnancy resulting in an increase in the demand for iron and, potentially, a fall in the haemoglobin level. Generally anaemia can be treated with supplements and only severe anaemia requires red cell transfusions.

What causes bleeding during pregnancy?

Bleeding can occur throughout any stage of pregnancy, usually from the mother. In early pregnancy, the main causes are implantation of the pregnancy outside of the womb (ectopic pregnancy), miscarriage, and diseases of the reproductive system. Although bleeding may be heavy, very few women require blood transfusion.

Later in pregnancy the causes of significant bleeding include problems with the placenta and, rarely, rupture of the uterus (womb). Bleeding after childbirth is usually due to the uterus not contracting properly following delivery. Other causes include trauma during delivery, and retained pieces of the placenta in the uterus. If the bleeding is severe, transfusion of red cells, platelets and plasma products may be required.

Why does a pregnant woman with an Rh negative blood group require blood products?

If a baby is Rh positive and the mother is Rh negative, the mother may develop antibodies (attack molecules) to the baby's red blood cells. The baby's red blood cells may be destroyed



which leads to anaemia. This is called haemolytic disease of the newborn (HDN). If the baby develops severe anaemia a transfusion of red cells may be needed.

HDN can be prevented by giving the mother an injection of a special blood product called Anti-D (RhD immunoglobulin) during pregnancy and again after delivery.

What are immune platelet disorders?

Sometimes platelet antibodies are produced by the mother and cross over the placenta and destroy the baby's platelets, which increases the risk of bleeding and complications. The mother is treated for this condition with intravenous immunoglobulin and the baby may require transfusions with specially typed platelets until delivery and in the first few days of life.

BLOOD FACT

Baby's genetic material can be found in the mother's circulation, making non-invasive tests to diagnose disease before birth possible.