

BLOOD TRANSFUSIONS

Blood transfusions are frequently required for babies in the nursery. When a blood transfusion is considered necessary, the doctors and nurses in the nursery will contact you and discuss the reasons.

Why do babies need blood transfusions?

- 1) Anaemia (not enough red blood cells) – premature babies have difficulty making their own blood cells. We also regularly take blood tests to care for the premature baby, which can cause them to become anaemic.
- 2) Low blood pressure – bleeding or very frequent blood sampling can cause low blood pressure and this can be fixed by replacing blood with a transfusion. These are known as “**top-up**” transfusions. A premature baby less than 28 weeks gestation may need 3 or more blood transfusions before going home. The more premature a baby is the greater the number of transfusions that may be required.
- 3) Jaundice – due to damage to red blood cells. Bilirubin (jaundice) pigment comes from red blood cells. If a lot of red cells are being damaged (as in Rhesus disease) jaundice may become severe and a blood transfusion to remove the damaged red blood cells may be required. This is called an **exchange transfusion**.

Are blood transfusions safe?

Blood transfusions from the ACT Red Cross are considered very safe. There are many reasons why we feel confident about blood transfusion safety in babies:

- All blood donors are carefully screened for conditions that include hepatitis B, hepatitis C and human immunodeficiency virus (HIV)
- All blood transfusions are ‘O negative’ blood type, which is suitable to use for babies with any blood type.
- The transfusion service routinely uses blood packs from a single donor divided into 4 smaller bags that last for 5 weeks. This means on average that a baby will be exposed to only one donor. This reduces the very low risk of virus infection even further.
- All the blood products used in the nursery are irradiated prior to use to deplete the number of white cells as much as possible.
- The nursery staff then routinely filter all blood to remove any remaining white blood cells which may carry viruses such as cytomegalovirus (CMV).

Can parents donate blood?

The ACT Red Cross, the Canberra Hospital blood transfusion service and the Centre for Newborn Care offer to test parents who wish to donate blood to their baby. Parental blood donations have not been shown to reduce the risks of virus transmission to babies. Parents who donate blood need to be screened by the Red Cross as for any blood donor. This will involve blood type testing and screening for viruses including hepatitis C and HIV. Generally mothers are unable to donate blood as their haemoglobin is too low following birth.

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How long does it take for blood to be available if parents donate?

The time between collection of parents' blood and when it is available for the baby is 3 working days. Transfusions can only take place in working hours because parental blood must always be carefully filtered and irradiated to remove all white cells. If there is a need for your baby to have a blood transfusion soon after birth or in an emergency, then blood from the Red Cross will be used.

What are the signs of anaemia in my baby?

The signs that indicate anaemia in a baby include: pale complexion, feeding less well, sleeping more, poor weight gain, breathing faster, increased heart rate and increased apnoeas and/or bradycardias.

How does my baby receive the blood transfusion?

An intravenous line will be inserted if your baby does not already have one. The blood will be infused through the IV line over several hours. Occasionally some babies will receive a diuretic which will increase their urine output to cope with the extra fluid given by the blood transfusion.

If you have any further questions please ask the medical and nursing staff.

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