

NEONATAL EXCHANGE BLOOD TRANSFUSION

PARENT INFORMATION LEAFLET

BACKGROUND→ Exchange transfusion is a procedure that is useful in the treatment of conditions such as very high levels of jaundice. The procedure involves removing your baby's blood in stages and replacing it with fresh donor blood.

WHY IS IT NECESSARY → The most common indication for exchange transfusion is high levels of jaundice (raised levels of yellow pigment called 'bilirubin') possibly with a low blood count. This is usually due to excessive breakdown of your baby's red blood cells. The aim of treatment is to prevent any harmful effects of high jaundice levels on the baby's **brain**. Normally jaundice is treated with phototherapy (purple/blue lights) you may have seen on the unit. When the jaundice levels are high and not responding to phototherapy, exchange transfusion may be necessary.

WHAT DOES IT INVOLVE → Your baby would need to be admitted to the NICU for this procedure. An experienced doctor or nurse practitioner will carry out the exchange transfusion. They will often use fine plastic tubes placed in the blood vessels in your baby's umbilical cord. This will not hurt your baby because the cord has no feeling in it. An X-ray will be taken to make sure that the tubes are in the best position. Sometimes, the tubes are put in veins or arteries in your baby's arms or legs.

The exchange can take 2-3 hours to complete. Sometimes babies need more than one exchange transfusion over a series of days.

Is the blood used for exchange transfusion safe for my baby→ Adult donor blood (screened for infections) is cross matched against both the mother's blood and the baby's blood to ensure that it is compatible with both.

Will I be able to see my baby→ You may be asked to leave the room whilst the tubes are being inserted; this is because it must be a sterile procedure. your baby would be covered in sterile towels to create a safe clean area for the doctor to work with. Therefore, your baby may not be very visible during the procedure, but if your baby is stable, you could visit briefly to see how things are progressing. The nurses and doctors will also keep you updated.

MONITORING DURING THE PROCEDURE → During the procedure your baby will be carefully monitored, the Heart rate, temperature, BP, breathing rate and oxygen levels. We will do blood tests at the start of the procedure, halfway through and again at the end of the procedure to help assess the effectiveness of the treatment and check the blood chemistry and blood counts.

Are there any complications from exchange transfusion-->

Exchange transfusion is a procedure, which has been carried out many times in neonatal units. Like all procedures however, there are risks attached. For exchange transfusion these include:

- Infection
- Low blood sugar
- Problems with blood clotting
- Unstable blood pressure
- Breathing problems
- Unstable sodium and calcium levels in the bloodstream.

Your baby will be monitored for these problems and treated promptly in the unlikely event that any arise. It is important to remember that the decision to perform an exchange transfusion will only have been reached because the risks of not doing it are greater for your baby.

Does the procedure need repeating→ Occasionally the jaundice levels remain dangerously high or may rise again following the first exchange transfusion. If this occurs, a second transfusion may be needed. It is very rarely that a second transfusion is required.

How would my baby feed during the procedure→ your baby would not have any feed during the procedure and nothing by mouth 24 hours afterward. Feed would be provided via fluids through the vein.

The doctors will be happy to discuss any issues you may have about the procedure.