

Exchange Transfusion

Background

Exchange transfusion is a procedure that is useful in the treatment of conditions such as very high levels of jaundice. Your doctor will have explained to you why your baby needs an exchange transfusion. It is usually performed in the first 2-3 days of life.

This leaflet will explain some details about the procedure.

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 really high and not responding to phototherapy, exchange transfusion may be necessary.

What does it involve?

Exchange transfusion aims to remove the bilirubin present in the blood of your baby. It is done by slowly removing the circulating blood from your baby, small amounts at a time, and replacing it with new donor blood. We have to do this over 2-3 hours. We usually have to insert two special drips through the baby's belly button (umbilical catheters), one to remove the baby's blood and another to give the new blood. These drips may already be in place. The blood used for exchange transfusion has to be specially ordered from the Blood Bank.



Monitoring during the exchange transfusion

Your baby's heart rate, blood pressure, breathing and temperature will be monitored very closely throughout the procedure. 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?

There are risks associated with the procedure, such as low blood count, fluid overload, abnormal salt or sugar levels, low temperature and infection.

Serious complications can include abnormal heart rhythms and seizures (fits). Very rarely it may result in death – these babies are usually very unwell with additional medical problems.

Your doctor will explain about the benefits of the procedure as well as the risks involved. Your signed consent (permission) will be requested before going ahead with the procedure.

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.

Who do I ask for more information?

Please ask to speak to one of the doctors or nurses on the Newborn Intensive Care Unit if you have any questions.