Blood transfusions in babies may be life-saving. However, great care must be taken to ensure that correct small volumes are used otherwise they may become life-threatening.

Why give a blood transfusion?
Blood transfusions are given to raise haemoglobin levels when clinical signs of anaemia are present. It is imperative that they are administered using aseptic technique and are closely monitored in order to prevent sepsis and ensure early detection of anaphylactic shock.

Policy
A blood transfusion must be ordered by a doctor who must also take blood for cross-matching. The doctor must sign consent for a R/N to erect the first unit of blood.

4 ml/kg blood increases the haemoglobin by 1 gm% thus about 10 ml/kg is usually ordered

Hospital policy must be adhered to when ordering, checking and receiving blood.

Requirements
1) Equipment for setting up an IV:
   - Vacolitre – neonatalyte
   - Buretrol
   - Write date on drip chamber
   - Administration set
   - T-piece and strapping
2) Unit of packed cells (O negative blood can be given to babies), at 10 ml/kg
3) 50 ml syringe and extension set
4) Syringe driver
5) Fluid balance and observation charts
6) Gloves

Procedure
1) Peripheral line to be inserted by doctor (see IV guideline). Use a short-line separate from maintenance fluids if possible
2) Do baseline observations
3) Blood must be checked by 2 people as ordered by doctor
   - Check patients name, registration number, pack number, blood group and Rhesus, and expiry date
   - Details entered on orange card: date, time, signature, pack number, blood group and countersigned by checker
   - Ensure doctor has signed permission for R/N to erect blood
4) Draw up blood into 50 ml syringe (vary according to the amount of blood given)
5) Attach the extension line and flush blood through
6) Flush IV line with saline. Blood cannot be administered with glucose
7) Attach blood through a syringe driver and discontinue IV
8) Set according to the specified rate (usually over 4hrs)
1) Commence the blood transfusion
2) In Nursing Process, enter the date, time and baseline observations. Also record that information on Observation Chart. Record amount on Fluid Balance Chart in red (Form Paed/21)
3) Observe baby carefully:
   - i.e. temperature, pulse, BP, respiration, colour, oxygen and SATS
     - every 5 min for 15 minutes, then
     - every 30 minutes x 2, then
     - hourly
4) Administer lasix halfway through the transfusion, as ordered
5) Check blood glucose before, during and after the blood transfusion, particularly if maintenance fluid is discontinued (follow "Neonatal Hypoglycaemia” guideline)
6) On completion, flush with saline and reconnect IV running at the correct rate
7) Clean up and record in Nursing Process