KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

NEONATAL BLOOD TRANSFUSION OBSERVATIONS

Name:		IP Number:		Date:	

Transfusion guide: Consider transfusing baby in the following situations:

Condition	Transfusion threshold	Condition	Transfusion threshold
• Anaemia in the first 24 hours • Receiving mechanical ventilation • Acute blood loss	Hb < 12g/dl Hb < 12g/dl > 10% blood volume lost	• Oxygen dependent (not ventilated) • Late anaemia, stable patient (off oxygen)	Hb < 8-11g/dl Hb < 7g/dl

Goal: Raise Hb to ≥12g/dl.
4ml/kg blood increases the haemoglobin by approximately 1gm%.
Therefore usually transfuse 10-20ml/kg leucocyte depleted packed cells. This must be administered over no longer than 4hrs.

Doctors: Order:

Type of blood:		Volume:		Rate:		Permission for PN to administer 1st unit:	Y / N
MO sign:		Print:			Practice No.		

Nursing plan:

- **NB**. From taking blood from fridge to end of transfusion, no more than 6hrs must pass!
- Warm blood in the incubator next to baby or in a bowl of warm water.
- Preferably administer blood via a second peripheral line. Maintenance fluids must continue if NPO.
- Blood must be drawn up into a 50ml syringe via a blood giving set(to ensure it is filtered) connected using a 3-way tap.
- Flush T-connector/short line with saline before running through blood in order to prevent clot formation from calcium contained in Neonatalyte.
- Administer via a syringe pump OR infusion pump if appropriate blood giving set is available. Commence immediately to prevent blood clotting in extension set.
- Half way through transfusion: Stop transfusion, flush short line with saline and give 1mg/kg Furusemide as ordered.
- On completion, flush with saline & reconnect IV at the correct rate or leave as short line.
- Store blood pack, giving set, syringe and extension in fridge for 24 hrs.
- Document volume of blood administered on fluid balance and transfusion details in multidisciplinary notes.
- Ensure all documents from blood bank are completed and returned.

Pre-transfusion check:

Parental Consent Obtained:	Y / N	Date:		Time:		Type of blood:	
Pack number:		Blood group:		Rhesus factor:		Expiry date:	
Any leaks/abnormal colour/clots?	Y / N	MO's orders, Pt's details & blood group checked?	Y / N	Volume to be transfused:			

Transfusion commenced by:	Sign:		Print & SANC No:		Date:		Time:	
Transfusion checked by:	Sign:		Print & SANC No:		Date:		Time:	

NB. Please turn over-observations overleaf.

Observations:

- **NB**. Blood transfusions can be FATAL! Ensure the correct blood is given to the correct patient and monitor closely for a transfusion reaction.
- Ensure baby is monitored continuously, with appropriate alarms set, using a multiparameter monitor.
- Base line observations should be done before commencing blood transfusion including Temperature, Pulse, Respiration, BP, Saturations, FiO_2, Colour & Dextrose and a visual check for any bleeding.
- Then observe as indicated on the table below. Check glucose half way through and on completion*.

Transfusion reaction:

Immediately notify MO and stop transfusion if: temperature rises/BP or pulse changes/ saturations decrease/apnoea develops/rash develops/oozing from puncture sites /baby becomes restless.

Normal ranges: Temp: 36^{5}-37°C **Pulse:** 120-160 bpm **Resp:** 40-60bpm **Sats:** 90-94% (in oxygen) **Dext:** 2.6-8 mmol/l **BP mean:** +/- gest. age.

Schedule	Time	Incub. temp. (°C)	Skin temp. (°C)	Colour	Pulse (bpm)	BP	Mean	Resp. rate (bpm)	Oxygen (%)	Sats. (%)	Dext. (mmol/l)	Action taken for any abnormality	Sign
Baseline											*		
5 min													
10min													
15 min													
30 min													
1 hour													
1hr 30													
2 hours											*		
2hr 30													
3 hours													
3hr 30													
4 hours											*		
1 hr post													
For 24hrs	Continue 3hrly observations on daily assessment chart.												

Transfusion discontinued by:	**Sign:**		**Print & Practice No:**		**Date:**		**Time:**	

Abbreviations: IV= Intravenous; NPO= nil per os; Incub=incubator; temp=temperature; Resp=respiration; Dext= Dextrostix; BP= Blood pressure; FiO_2=Fraction of Inspired oxygen; min= minutes; bpm=beats/breaths per minute