NEONATAL HYPOGLYCAEMIA
A common AND serious neonatal problem

Feed ALL babies within half an hour of birth (with breast milk unless mother has chosen to
formula feed)

Start this protocol as soon as baby has a glucose reading of 2.5 mmol/l or less
A glucometer reading below 2.5 mmol/l means that the baby is at risk of BRAIN DAMAGE

Who is at risk?
All babies who are small, sick, cold and/or not fed, and those born to mothers with diabetes.
- Monitor the blood glucose of small and/or sick babies every 3 hours for the first 24 hours and continue until the
  level is normal for 24 hours
- Check the blood glucose of infants of diabetic mothers hourly, for the first 6 hours
- If milk feeds are contraindicated, start intravenous fluids (neonatolyte) immediately
- Keep the baby warm

What are the clinical signs?
Often there are no symptoms or signs. There may be jitteriness or lethargy, apnoea, convulsions, or hypothermia.
Remember the vicious cycle:

Oral management: mild hypoglycaemia (glucose 1.8-2.5 mmol/l)
1) When the glucometer reads 1.8-2.5 mmol/l, give 10 ml/kg breast milk (or artificial feed if indicated) IN ADDITION TO
SCHEDULED FEEDS
2) Repeat the glucometer 15 minutes after COMPLETION of the feed
3) If glucometer reads more than 2.5 mmol/l, continue with normal feeds and monitor glucose level three hourly
4) If glucometer again reads under 2.5 mmol/l, oral management has FAILED. Proceed to intravenous management

Intravenous management: severe hypoglycaemia (glucose <1.8 mmol/l)
1) If glucometer reading is less than 1.8 mmol/l, OR oral management has failed, start an IV infusion with neonatolyte
(10% dextrose + electrolytes) IMMEDIATELY, at the appropriate rate for weight, gestation and age
2) When you have finished strapping and splinting the cannula give a 3ml/kg bolus
3) Repeat the glucometer reading after 15 minutes
4) If the glucometer reads more than 2.5 mmol/l, continue with normal feeds and monitor glucose level three hourly
5) If the glucometer again reads less than 2.5 mmol/l, change infusion to a 15% dextrose infusion (180ml neonatolyte +
20ml 50% dextrose). At the start give a 2ml/kg bolus, then continue at required rate for age
6) Repeat the glucometer reading 15 minutes after changing to 15% solution
7) If glucose remains low, give GLUCAGON 0.2mg/kg IV or IM, and arrange transfer to a regional or tertiary hospital

Record all readings and actions on “Hypoglycaemia Management Chart” (Form Paed/19)