Directorate of OBS, GYN & NEO Royal Jubilee Maternity Service

Management of the infant at risk of hypoglycaemia

Definition of the at risk baby

1) Gestation less than 36 weeks
2) Maternal diabetes mellitus
3) Birth weight less than 2500 g
4) Small for gestational age infants (i.e. babies less than 10th centile on growth chart even if greater than 2500g. Please check the growth chart)

What are the symptoms of hypoglycaemia?

"Jerky" movements, lethargy, irritability, poor feeding, abnormal cry, apnoea. Late symptoms include seizures and loss of consciousness and require urgent paediatric opinion. Any baby with these symptoms should have a capillary glucose estimation.
In "at risk" neonates **who do not show abnormal clinical signs** the blood glucose concentration should be maintained above 2.5 mmol/L. There is no evidence that brief periods of exposure to lower levels are harmful in asymptomatic babies.

General principles

All babies

At risk babies usually need at least 8 feeds in 24 hours (some need more).
Keep babies warm - babies who get cold are at even greater risk of becoming hypoglycaemic

Breastfeeding babies

Skin-to-skin contact, ensuring an early first feed and correct attachment at the breast will improve feeding outcomes. If an at risk breastfed baby does not feed well within the first hour of life start hand expressing and give all available EBM by oral syringe, cup or tube.

Type of feeds

Infants at risk of hypoglycaemia should still be breast fed (including use of EBM expressed 3 hourly or donor EBM given with mother's consent). If however a mother chooses artificial feeding, then a term formula should be used. After discussion with a paediatrician a preterm formula can be substituted. **High Energy milks (e.g., SMA High Energy) are not for general use on postnatal wards and should NOT be given to a preterm infant.**

Volume of feeds

Even small volumes of EBM should still be given. If mother chooses formula feeding then the volume should start at 80 ml/kg/day of term formula in the first 24 hours and increase to 100 ml/kg/day after discussion with a paediatrician. The next step should be use of a preterm formula. Failure to achieve a capillary glucose more than 2.5 mmol/L despite feeding 100mls/kg/day of a Low Birth Weight formula in the first 24 hours of life should be discussed with the Paediatric SpR, a laboratory blood sugar should be sent (use a fluoride bottle: in the vacuette system this is a grey topped bottle, in the smaller bottles a yellow topped bottle) and admission to NICU considered for IV fluids.

Date: May 2006
Review date May 2008

Reference: www.who.int/reproductive-health/docs/hypoglycaemia_newborn.htm