Newborn hypoglycaemia: prevention and detection

Preventative care for well newborns at risk for hypoglycaemia
For care associated with symptomatic hypoglycaemia and with BGL screening < 2.6 refer to Management flow chart

**Risk factors**
- Preterm (< 37 weeks gestation)
- SGA (< 10th percentile)
- LBW (< 2500 grams)
- Maternal diabetes (IDM)
- LGA (> 90th percentile)/macrosomia
- Severe intrapartum asphyxia/resuscitation at birth
- Polycythaemia
- Unwell babies (e.g. infection)
- Inadequate feeding
- Hypothermia or labile temperature
- Obvious syndromes
- Maternal drug therapy (e.g. β blocker)
- Family history of metabolic disorders

**At birth**
- Keep baby warm (36.5-37.2°C)
  - Dry baby
  - Early skin-to-skin contact
- Initiate early feeds within 30-60 minutes of birth
  - Support mother’s choice of newborn feeding
  - Gavage feeds if < 35 weeks
  - If enteral feeding is not possible or contraindicated:
    - Commence IVT 10% Glucose at 60 mL/kg/day (4.2 mg/kg/min) → Refer to Flow chart: Newborn hypoglycaemia BGL < 2.6
- Avoid separation of mother and baby
  - If no other indication, neonatal unit/SCN admission not required

**Symptomatic or unwell?**
- Signs include:
  - Tremors/jitteriness
  - Apnoea
  - Cyanosis
  - Irregular, rapid breathing
  - Seizures
  - Altered level of consciousness
    - Irritability, lethargy, stupor, coma
  - Hypotonia
  - Weak or high-pitched cry
  - Poor feeding

**BGL ≥ 2.6?**
- Continue ongoing care
  - Cease BGL monitoring if:
    - BGL ≥ 2.6 for 24 hours, and
    - The baby is feeding effectively, and
    - The baby is well and has not required IVT

**Ongoing care**
- Keep baby warm
- Further skin-to-skin contact
- Discuss preventative care with parents
  - Encourage mother to observe for feeding cues
- Pre-feed observations for minimum of 24 hours include:
  - Level of consciousness
  - Tone
  - Temperature
  - Respiration
  - Colour/perfusion
- **Feeds**:
  - At least 3 hourly or more frequently if baby demanding
- **BGL**:
  - Pre second feed – this should be within 2-3 hours of birth
  - Every 4-6 hours pre-feed

**Fed effectively?**
- No → Symptomatic or unwell?
  - Yes → Check BGL
  - Medical review required
    - If BGL ≥ 2.6 – consider other causes especially infection
    - Commence IVT 10% Glucose at 60 mL/kg/day (4.2 mg/kg/min)
  - Refer to Management flow chart: Newborn hypoglycaemia: BGL < 2.6
  - No → Be proactive
    - Breastfeeding babies:
      - Hand express, give colostrum/EBM
    - BGL
      - At 2 hours of age
    - Ongoing:
      - Keep warm
      - Skin-to-skin contact
      - Observations
    - Yes

*All BGL measurements in mmol/L*