Preventative care of the well at risk (for hypoglycaemia) newborn baby

Well, at risk newborn baby (first 48 hours of life)
If baby is symptomatic for hypoglycaemia or screening BGL < 2.6 mmol/L—refer to Flowchart: Management of hypoglycaemic newborn baby

**Risk factors for hypoglycaemia**
- Temperature < 36.5 °C or labile
- Baby of woman with diabetes
- Preterm < 37 weeks gestation
- Inadequate feeding
- SGA < 10th centile
- LBW < 2500 g

- LGA > 90th centile
- Resuscitation at birth
- Post-mature baby > 42 weeks gestation
- Polycythemia
- Macrosomia
- Meconium aspiration syndrome

- Suspected syndromes
- Maternal medications—beta blockers; dexamethasone; oral hypoglycaemics
- Family history of metabolic and/or endocrine disorders

**At birth**
- Assess for risk factors
- Keep baby warm
  - Dry baby
  - Early skin-to-skin
  - Maintain temperature 36.5 °C–37.5 °C
- Initiate feeds within 30–60 minutes of birth
  - Discuss feeding cues
  - Feed at least 3 hourly or more frequently
  - Gavage feed if baby < 35 weeks
- Keep mother and baby together if possible
  - Discuss preventative care with parents

**Effective 1st feed?**

**Symptomatic or unwell baby**
May have one or more signs
- Poor feeding
- Tremors/jitteriness
- Apnoea
- Cyanosis
- Irregular, rapid breathing
- Seizures
- Altered LOC—irritability, lethargy, stupor, coma
- Hypotonia
- Weak or high pitched cry

**Confirm any BGL < 2.6 mmol/L in blood gas machine, PoC analyser or laboratory**

**BGL ≥ 2.6 mmol/L?**

- Continue usual care
- Cease BGL monitoring if:
  - BGL ≥ 2.6 mmol/L for 24 hours in 1st 48 hours or ≥ 3.3 after 48 hours
  - BGL for known hypoglycaemic disorder ≥ 4 mmol/L (after 6 hour fast test)
  - Baby feeding effectively and is well

**BGL 1.5–2.5 mmol/L?**

- If indicated/possible give glucose gel 40% and feed baby
- Medical/NNP review
  - Assist breast feeding mothers with attachment and hand expression
  - Give baby colostrum/EBM if available
  - Assist formula feeding baby
  - If concerned repeat BGL

- Refer to Flowchart: Initial management of hypoglycaemia in newborn baby—symptomatic or BGL < 1.5 mmol/L (first 48 hours of life)

**BGL < 1.5 mmol/L?**

- If baby < 35 weeks and/or < 2500 g admit to neonatal unit and/or consult with RSQ

**Confirms any BGL < 2.6 mmol/L in blood gas machine, PoC analyser or laboratory**

**None of these**
Refer to Flowchart: Initial management of hypoglycaemia in newborn baby—symptomatic or BGL < 1.5 mmol/L (first 48 hours of life)

- If baby > 48 hours of age and BGL < 3.3 mmol/L manage as persistent hypoglycaemia

**BGL ≥ 2.6 mmol/L?**

- If baby < 35 weeks and/or < 2500 g admit to neonatal unit and/or consult with RSQ

**Symptomatic or unwell baby**

**Effective 1st feed?**

**Ongoing care**
- Keep baby warm
  - Continue skin to skin contact
- Feed
  - Feed at least 3 hourly or more frequently
  - Gavage feed if baby < 35 weeks gestational age
- BGL screening:
  - 1st–before second feed not longer than 3 hours of age
  - 2nd–before third feed not longer than 6 hours of age
  - If normal (≥ 2.6 mmol/L)—before every second feed, every 3–6 hours pre-feed for 24 hours
- Routine observations for 24 hours
  - Temperature, heart rate, respirations, colour/perfusion, LOC, tone

**BGL ≤ 2.6 mmol/L?**

- If indicated/possible give glucose gel 40% and feed baby
- Medical/NNP review
  - Consider neonatologist consultation
- Admit to neonatal unit
- Refer to Flowchart: Initial management of hypoglycaemia in newborn baby—symptomatic or BGL < 1.5 mmol/L (first 48 hours of life)

**BGL ≥ 2.6 mmol/L?**

- If indicated/possible give glucose gel 40% and feed baby
- Medical/NNP review
  - Consider neonatologist consultation
- Admit to neonatal unit
- Refer to Flowchart: Initial management of hypoglycaemia in newborn baby—symptomatic or BGL < 1.5 mmol/L (first 48 hours of life)

**BGL ≥ 2.6 mmol/L?**

- If indicated/possible give glucose gel 40% and feed baby
- Medical/NNP review
  - Consider neonatologist consultation
- Admit to neonatal unit
- Refer to Flowchart: Initial management of hypoglycaemia in newborn baby—symptomatic or BGL < 1.5 mmol/L (first 48 hours of life)