Preventative care of the well at risk (for hypoglycaemia) 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
- Polycythaemia
- Macrosomia
- Meconium stained liquor
- 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

**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

**Effective 1st feed?**
- Yes
  - If baby < 35 weeks and/or < 2500 g admit to neonatal unit and/or consult with RSQ

**Symptomatic or unwell or BGL < 1.5 mmol/L?**
- Yes
  - Fooding
    - Assist breast feeding mothers with attachment and hand expression
    - Give baby colostrum/EBM if available
    - Assist formula feeding baby
    - If concerned repeat BGL

**BGL ≥ 2.6 mmol/L?**
- Yes
  - 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?**
- No
  - Feeding
    - Assist breast feeding mothers with attachment and hand expression
    - Give baby colostrum/EBM if available
    - Assist formula feeding baby
    - If concerned repeat BGL

**BGL 1.5 mmol/L–2.5 mmol/L**
- None of these
  - Refer to Flowchart: Initial management of hypoglycaemic newborn baby–symptomatic or BGL < 1.5 mmol/L (first 48 hours of life)

**BGL ≥ 2.6 mmol/L in blood gas machine, PoC analyser or laboratory**

**Ongoing care**
- Keep baby warm
- Continue skin to skin contact
- Feed
  - Feed at least 3 hourly or more frequently
    - Gavage feed if < 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

**Confirm any BGL < 2.6 mmol/L**

**Risk factors for hypoglycaemia**

**References**

**Abbreviations**
- BGL blood glucose level, EBM expressed breast milk, IV intravenous, LBW low birth weight, LGA large for gestational age, LOC level of consciousness, NNP neonatal nurse practitioner, RSQ Retrieval Services Queensland, SGA small for gestational age, < less than, > greater than, ≥ greater than or equal to