

Blood glucose thresholds* – our management aims to keep glucose values above these levels

*The blood glucose (BG) levels associated with a risk of hypoglycaemic brain injury are not accurately known. These thresholds are consensus-based guides to target levels for glucose considered likely to provide a margin of safety and do not represent thresholds below which injury is expected to occur.

| | < 72h | ≥ 72 h | ≥ 120h |
|--|-------------|---------------|--------------------------|
| Term baby | ≥ 2mmol/L | ≥ 3mmol/L | ≥ 3mmol/L |
| Term + signs of hypoglycaemia Or Term + HIE | ≥ 2.5mmol/L | ≥ 3mmol/L | ≥ 3mmol/L |
| Preterm | ≥ 2.5mmol/L | ≥ 3mmol/L | ≥ 3mmol/L |
| Any gestation with suspected <i>or</i> proven hyperinsulinism* | ≥ 3mmol/L | ≥ 3mmol/L | ≥ 3.5mmol/L ⁺ |

^{*}A small number of healthy term babies may take another day or two to achieve metabolic transition and have BG values in the range 2.6 – 2.9mmol/L. These babies should be discussed with a consultant before fluid management is escalated solely to raise the BG level.

Other tips

- * There is extensive guidance about the management of term infants (≥37 weeks) at risk of hypoglycaemia <48h old, from BAPM on Badger. Please read this carefully to understand the appropriate action to take during hypoglycaemia and when to recheck blood glucose (it may be appropriate to recheck pre-feed or after 30 minutes).
- * Glucogel is not recommended yet for preterm babies. Please see Badger guidance relating to the management of hypoglycaemia in preterm babies. After an intervention to raise blood glucose we should recheck within 30 minutes.
- * If babies (preterm or term) are already receiving an intravenous glucose infusion and are hypoglycaemic (see above thresholds), appropriate treatment is to increase glucose delivery by 2mg/kg/min and recheck within 30 minutes.
- * An intravenous glucose bolus of 2.5ml/kg of 10% glucose is reserved **only for blood glucose** <1mmol/L or when there are serious neurological concerns. Recheck within 30 minutes.

Author: Judith Orme, Implemented 5 12 23 Review date 5 12 33

⁺Consider whether hyperinsulinism is ongoing or has resolved. Resolution can be defined as blood glucose values ≥ 3.5mmol/L with 3-hourly feeds of normal milk. If resolution occurs after day 7, a 6 hour controlled fast will occur before discharge. Please see the full hyperinsulinaemia guideline.