



## Definitions

Suspected HI	Resolution of HI
Intravenous GIR of ≥8mg/kg/min to maintain normoglycaemia  *Need biochemical confirmation*	Maintenance of BG ≥3mmol/L throughout test of weaning and GIR <8mg/kg/min  or Maintenance of BG ≥3.5mmol/L for 24h on 3-hourly feeds of standard milk

## How to calculate GIR?

$$\text{Intravenous glucose infusion rate (GIR) in mg/kg/min} = \frac{[\text{Total daily volume of IV glucose (ml/kg/d)} \times \text{concentration of glucose (\%)}]}{144}$$

## When to measure blood glucose (BG)? (also see BG maps)

- 15-30mins after low BG
- Pre-feed (3hrly or 4hrly)

## When to wean IV fluids by 1mg/kg/min? (also see BG maps)

- 1 x BG >3mmol/L during test of weaning in first 5d or 1 BG ≥3.5mmol/L if older

If hypoglycaemia <3mmol/L occurs, promptly perform a hypo screen and treat with glucogel as first line management, even if on IV fluids.

## Managing BG < 3.5mmol/L after day 5 (also see BG maps)

- Tolerate once - we expect the BG to rise as baby adapts. Recheck BG pre-feed in 3h
- If a **second consecutive BG is < 3.5mmol/L** (and ≥1mmol/L, and there are no neuro concerns) give **0.5ml/kg of 40% glucogel buccally**, plus the feed which is due. Recheck BG in 15-30mins
- If a **third consecutive hypoglycaemic episode** occurs, give a second glucogel and increase the continuous IV GIR by 1 mg/kg/min. Recheck BG in 15-30 mins
- On the **fourth consecutive occasion or if BG <1mmol/L, or neurological dysfunction at any BG**, give a 2.5ml/kg bolus of 10% glucose and increase the GIR by 2mg/kg/min. Recheck BG in 15-30mins

## Preparing for discharge checklist for babies who did not resolve in the first week of life

- Check diagnosis has been confirmed biochemically
- Check fatty acids result normal (cannot fast if not)
- Perform 6h fast and keep BG stable ≥3.5mmol/L for >48h
- Review home BG testing schedule
- Train parents in BG testing and perform glucogel demonstration
- Give home hypo plan, and feed/BG diary to parents
- Plan follow-up and create Trak alert (as needed)