

Management of Neonatal Hypoglycemia (Gestational Age \geq 35 + 0/7 weeks) in first 48 hours of age



HEALTH
UNIVERSITY OF UTAH

True hypoglycemia is defined as blood glucose (BG) <45 mg/dL in the first 48 hours of age. Between 48-72 hours, there is no clear guidance on specific BG threshold, but it should rise. After 72 hours of age, hypoglycemia is defined as BG <60 mg/dL. Glucose is checked point of care (POC) first. If POC blood glucose is <40 mg/dL, a confirmation will automatically be sent by the lab. **A low POC glucose should be treated while awaiting confirmation result.**

For All Infants:

- Encourage breastfeeding or breastmilk expression during the first hour after birth
- For mothers not planning to or unable to breastfeed, provide formula or donor milk (2-10mL per feed in first 24hrs, 5-15mL per feed in second 24hrs)

SIGNS of hypoglycemia: check at any time

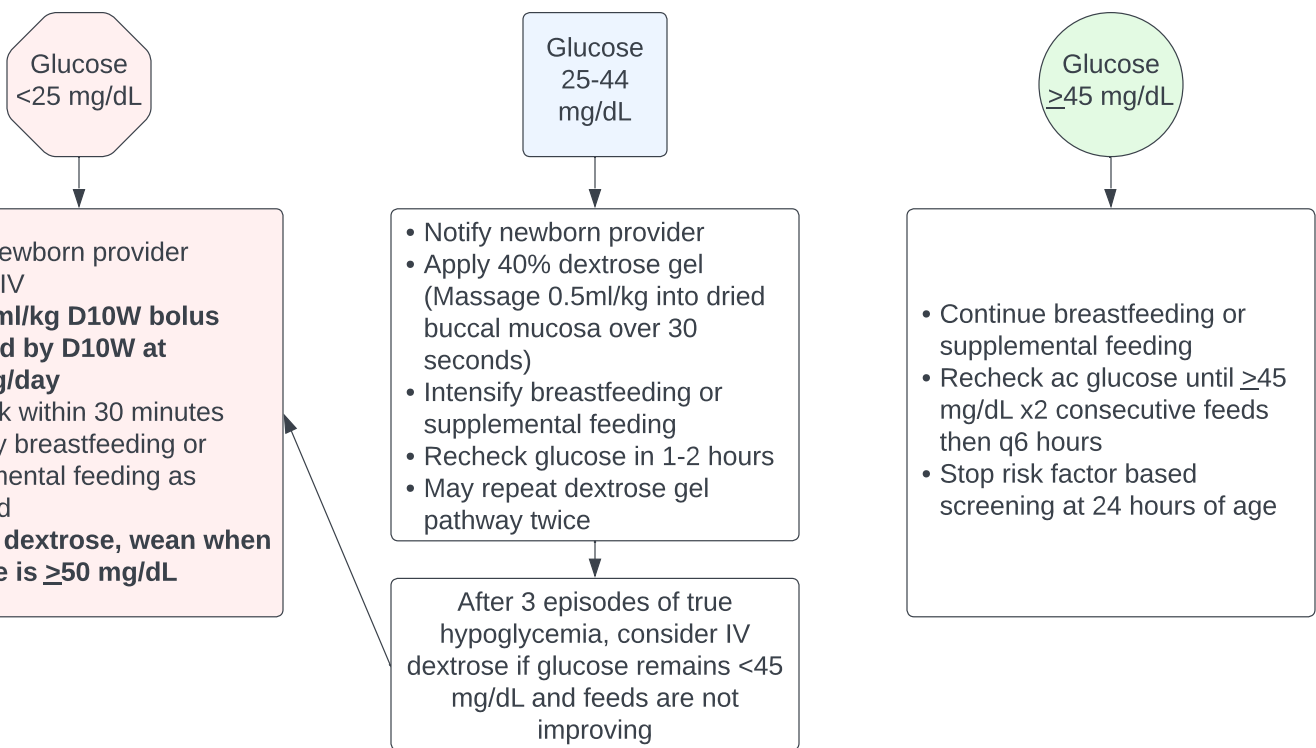
- Seizures, coma, hypotonia, or lethargy
- Jitteriness, irritability
- Apnea, cyanosis, tachypnea
- Persistent oxygen need beyond transition period
- Hypothermia or fever
- Poor suck or refusal to feed
- Persistent tachycardia or bradycardia

Notify newborn provider and check blood glucose immediately: **If BG is normal or if signs of hypoglycemia persist despite treatment, investigate other etiologies.**

RISK FACTORS for hypoglycemia: screen for first 24 hours

- Prematurity (<37 weeks)
- SGA (weight $<10\%$ ile)
- Infant of a diabetic mother (IDM)
- LGA (weight $>90\%$ ile)
- 10 minute APGAR <7
- Polycythemia (Hct $>65\%$)
- Maternal terbutaline, beta blockers, or antenatal steroids within 48 hours prior to delivery
- Microphallus (<2 cm) or midline defects

Check blood glucose at 2-3 hours of age AND before 2nd feed (after physiologic nadir)



If hypoglycemia persists beyond 72 hours of life (BG <60 mg/dL), further investigation is required. Critical labs should be obtained when BG <50 mg/dL: BMP, beta-hydroxybutyrate, insulin level, free fatty acids, lactate, cortisol, and growth hormone level (PRIORITY = BMP $>$ BOHB $>$ insulin $>$ FFA $>$ cortisol $>$ GH). Consult endocrinology for further support when labs result.