



NEONATAL HYPOGLYCEMIA



Pathophysiology

- In utero, the placenta provides a continuous flow of glucose to the fetus.
- After delivery, the infant must transition to regulating their own glucose levels.
- It is normal for infant blood glucose levels to drop in the first 24 hours, but any disruption to normal transition may result in hypoglycemia.
- Up to 90% of glucose is used by the infant's brain.
- Severe or prolonged hypoglycemia can lead to neurologic damage.

Risk factors for neonatal hypoglycemia

- Diabetic parent
- Small for gestational age
- Large for gestational age
- Preterm infants
- Hypothermic infants
- Parent treated with certain medicines (terbutaline, steroids)

Symptoms of hypoglycemia

Seizure
Respiratory distress
Jittery



Lethargy
Poor feeding
Hypothermia
Hypotonia

Nursing assessment

- Heart rate
- Blood pressure
- Temperature



- Blood glucose level
- Additional lab work

Infants with hypoglycemia may be asymptomatic.

All at-risk newborns should be screened within first 2–3 hours of life and reassessed per unit policy.

Management

Blood glucose levels	Management
< 20	Intervene w/ fast acting glucose.
20–40	If infant is term and able to feed, allow infant to feed.
> 40	Normal care

Always check the unit's specific policy for treatment levels.

Interventions



Feed infant



Dextrose gel



IV glucose

Always reassess blood glucose levels 20–30 minutes after intervention.

Education

Encourage skin-to-skin contact and infant feeding within first hour of life.

Provide anticipatory guidance to parents when additional testing is needed, as this may be a source of stress.

Educate parents on signs of hypoglycemia and when to call provider. Instruct to feed infant immediately if signs develop.