Inclusion Criteria: pediatric patients > 48 hours old, in the pediatric emergency department or pediatric inpatient unit
Exclusion Criteria: infants < 48 hours old, refer to "Screening and Management of Asymptomatic Newborns at risk for Hypoglycemia During First 48 Hours of Life" Pathway, patients with metabolic syndrome → follow patient specific care guideline

Hypoglycemia Thresholds:
- Insulin dependent, diabetic patients < 80 mg/dL
- Non-diabetic patients < 60 mg/dL and/or presenting with hypoglycemic symptoms, which may include pallor, anxiety, sweating, weakness, tremors, tachypnea, nausea/vomiting, irritability, confusion, slurred speech, headache, seizures and coma

Considerations for Admission: unable to maintain normoglycemia, need for continuous IV dextrose, no clear etiology for hypoglycemia, < 1 year of age, no close follow-up available

Hypoglycemic Episode

Non-diabetic < 60 mg/dL
If unknown etiology, prior to treatment, draw critical labs: STAT serum glucose, insulin, c-peptide, beta-hydroxybutyrate, cortisol, growth hormone, FFA, lactate, ammonia, urine ketones (when able to void)

Diabetic < 80 mg/dL

Other tests to be considered: CMP, blood gas, IGF-1, acetocetate, free & total carnitine, acylcarnitine profile, serum amino acids, pyruvate, urine organic acids, urine toxicology screen

Altered mental status or unable to take PO?

Oral Treatment
Preferred route of treatment for patients that are conscious and able to tolerate PO safely
Options:
- < 5kg - 0.5 mL/kg glucose gel
- ≥ 5kg - 15 gms glucose gel or
- 4 ounces of juice for children > 1 year of age or
- 15 grams of fast-acting carbohydrates

Obtain IV access if patient is unable to tolerate 75% of PO within 15 mins or symptoms progress

IV Treatment
Dextrose IV Push:
- < 10 kg - dextrose 25%* injection 2 mL/kg
- 10-29 kg - dextrose 25% injection 1 mL/kg
- 30-49 kg - dextrose 50% injection 1 mL/kg
- ≥ 50 kg - dextrose 50% injection 25g/50mL

*To make D25% - dilute D50% 1:1 with sterile water or normal saline

ED ONLY: Dextrose 10% bolus (for pediatric patients < 30 kg), 5mL/kg

Re-check glucose 15 mins post-treatment

Re-check glucose in 1 hour

Normal

Return to routine monitoring

Hypoglycemia

Repeat PO/IV treatment
Consider IV access

Re-check glucose 15 mins post-treatment

Normal

Hypoglycemia

Begin Dextrose continuous infusion, check glucose q3hrs

Alternative treatment options:
Glucagon IM:
- 0.03 mg/kg for patients < 30kg
- 1 mg for patients > 30kg

Consider IO dextrose administration in emergent situations
Hypoglycemia

References


https://www.advocatechildrenshospital.com/healthcare-professionals/peds-pathways