UCSF Pediatric Hospital Medicine Consortium:
Consensus Clinical Practice Guidelines for Inpatient or Urgent Care Management of Acute New Onset Hypoglycemia in Children

Executive Summary
Objectives

- Standardize care of pediatric patients with hypoglycemia in the inpatient or urgent care settings
    - Uniform diagnostic approach to critical labs
    - Uniform treatment protocol

Recommendations

- Diagnosis
    - Any patient with symptoms of hypoglycemia should be screened with a point of care glucose
        - Symptoms of hypoglycemia may differ by age group
    - Hypoglycemia = serum glucose <70 (unless <48 hours old)
    - Critical labs should be sent for any patient with serum glucose <50 (see table)
- Initial Treatment
    - Oral therapy: Conscious patients/able to tolerate PO fluids safely
        - For infants < 1 year, 10 ml/kg of formula or expressed breast milk (may breastfeed while obtaining glucose-containing fluids)
        - For patients > 1 year, 0.3 g/kg (10-20g) of rapidly absorbed carbohydrate
            - 4 ounces of juice = approximately 15 g
    - IV Treatment: Altered mental status or unable to swallow, or not responding to oral glucose within 15 minutes
        - Bolus < 1 month: D10W 3mL/kg
        - Bolus > 1 month: D10W 5mL/kg (max 250 mL)
        - Measure glucose in 15 mins
- Continuous IV glucose infusion for any patient requiring 2nd IV bolus or after the *first* IV bolus for patients who presented with AMS, seizure or for patients in whom there is a suspicion for underlying pathology requiring continuous infusion (e.g. refractory vomiting, insulinoma)
    - Start at GIR 5, increase as needed
- Hospital Admission: Reasons include inability to maintain normoglycemia orally, unknown cause of hypoglycemia, ingestion of long-acting hypoglycemic agent, inability to maintain glucose >70, need for continuous infusion
- Consultations
    - Endocrine: Unknown etiology of hypoglycemia, hypoglycemia unresponsive to glucose administration, or GIR>15
    - Toxicology: ingestion of known hypoglycemic agent

Methods

This guideline was developed through local consensus based on published evidence and expert opinion as part of the UCSF Northern California Pediatric Hospital Medicine Consortium

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