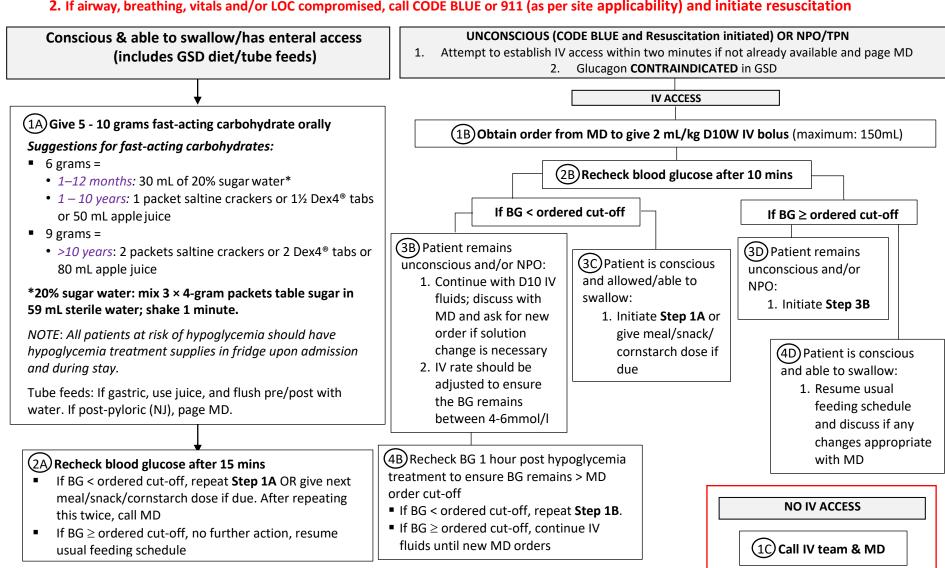**PEDIATRIC BIOCHEMICAL GENETICS HYPOGLYCEMIA MANAGEMENT ALGORITHM**

**\*NOT FOR USE FOR HYPOGLYCEMIA TREATMENT IN INFANTS <1 MONTH OF AGE\***

**BLOOD GLUCOSE (BG) < 4.0 mmol/L (unless cut-off otherwise specified in MD orders)**

1. Assess vital signs and level of consciousness (LOC)

**2. If airway, breathing, vitals and/or LOC compromised, call CODE BLUE or 911 (as per site applicability) and initiate resuscitation**

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| **Conscious & able to swallow/has enteral access (includes GSD diet/tube feeds)** | **UNCONSCIOUS (CODE BLUE and Resuscitation initiated) OR NPO/TPN** |
|---|---|
| | 1. Attempt to establish IV access within two minutes if not already available and page MD |
| | 2. Glucagon **CONTRAINDICATED** in GSD |

**IV ACCESS**

**(1A) Give 5 - 10 grams fast-acting carbohydrate orally**

*Suggestions for fast-acting carbohydrates:*

- 6 grams =
  - *1–12 months:* 30 mL of 20% sugar water\*
  - *1 – 10 years:* 1 packet saltine crackers or 1½ Dex4® tabs or 50 mL apple juice
- 9 grams =
  - *>10 years*: 2 packets saltine crackers or 2 Dex4® tabs or 80 mL apple juice

**\*20% sugar water: mix 3 × 4-gram packets table sugar in 59 mL sterile water; shake 1 minute.**

*NOTE: All patients at risk of hypoglycemia should have hypoglycemia treatment supplies in fridge upon admission and during stay.*

Tube feeds: If gastric, use juice, and flush pre/post with water. If post-pyloric (NJ), page MD.

**(1B) Obtain order from MD to give 2 mL/kg D10W IV bolus** (maximum: 150mL)

**(2B) Recheck blood glucose after 10 mins**

**If BG < ordered cut-off**

**(3B) Patient remains unconscious and/or NPO:**
1. Continue with D10 IV fluids; discuss with MD and ask for new order if solution change is necessary
2. IV rate should be adjusted to ensure the BG remains between 4-6mmol/l

**(3C) Patient is conscious and allowed/able to swallow:**
1. Initiate **Step 1A** or give meal/snack/cornstarch dose if due

**If BG ≥ ordered cut-off**

**(3D) Patient remains unconscious and/or NPO:**
1. Initiate **Step 3B**

**(4D) Patient is conscious and able to swallow:**
1. Resume usual feeding schedule and discuss if any changes appropriate with MD

**(2A) Recheck blood glucose after 15 mins**
- If BG < ordered cut-off, repeat **Step 1A** OR give next meal/snack/cornstarch dose if due. After repeating this twice, call MD
- If BG ≥ ordered cut-off, no further action, resume usual feeding schedule

**(4B) Recheck BG 1 hour post hypoglycemia treatment to ensure BG remains > MD order cut-off**
- If BG < ordered cut-off, repeat **Step 1B**.
- If BG ≥ ordered cut-off, continue IV fluids until new MD orders

**NO IV ACCESS**

**(1C) Call IV team & MD**

**Contact Biochemical Genetics On-Call if BG <3.4 mmol/L (unless cut-off otherwise specified in MD orders)**