

SCREENING AND MANAGEMENT OF ASYMPTOMATIC NEWBORNS AT RISK FOR HYPOGLYCEMIA DURING FIRST 48 HRS OF LIFE

- **“AT RISK”**= SGA, LGA, IDM, Late PT (34^{0/7} □ 36^{6/7} Birth GA), **other** clinical situations per physician discretion
- Throughout the algorithm, “feed” refers to maternal preference – **breast feeding alone is considered sufficient** if this is mother’s choice
- **Assess for symptoms before every BG measurement** and document in medical record.
 - **Contact Neonatal Provider immediately for symptomatic infants** and administer one dose of OGG.
 - Symptoms include: poor feeding, jitteriness, tremors, floppiness, lethargy, high pitched cry, irritability, grunting, cyanosis, apnea
- **Oral Glucose Gel (OGG):** dose is 0.5mL/kg □ **see reverse side for dosing chart**

Target glucose levels are $\geq 35\text{mg/dL}$ from Birth □ 4 hrs and $\geq 45\text{mg/dL}$ from 4 □ 24 hrs, $\geq 50\text{mg/dL}$ from 24-48 hours

- **Begin feeding** within 60 min of birth
- **BG screen #1** at 30 min after completion of first feed
- If $\geq 35\text{mg/dL}$ continue feeds q2-3hrs & perform pre-feed BG screen
- If < 35 :
 - Administer OGG immediately
 - Place skin-to-skin and breastfeed
 - Repeat BG 1 hr after OGG dose (not 1 hr after feed)



- **BG screen #2: Target $\geq 35\text{mg/dL}$ (birth to 4 hrs)**
- If $\geq 35\text{mg/dL}$ Continue feeds q2-3hrs and perform pre-feed BG screen
- If < 25 : **Notify Neonatal Provider for consult** & administer OGG
- If 25 to $< 35\text{mg/dL}$:
 - Administer OGG immediately
 - Place skin-to-skin and feed
 - Repeat BG 1 hr after OGG dose



Target glucose levels are $\geq 35\text{mg/dL}$ from Birth □ 4 hrs and $\geq 45\text{mg/dL}$ from 4 □ 24 hrs

Continue feeds q 2-3 hrs with BG screens prior to feeds:

- If \geq **Target**: continue feeds q2-3hrs and perform pre-feed BG screen
- If $<$ **Target**: administer OGG, place skin to skin and repeat BG in 1 hr

BG = 35-44 when between 4 and 24 hours of age

- Administer OGG immediately
- Place skin-to-skin and feed
- Repeat BG 1 hr after OGG dose
- Notify Neonatal Provider if > 24 hr of age

BG ≥ 45 when between 4 and 24 hours of age

- OGG dose not needed
- Continue feeds q2-3hrs and perform pre-feed BG screen

**STOP WHEN: 4 consecutive values (including post gel screen) in
target range for age in hrs:**



Birth – 4 hr	≥ 35
> 4 -24 hr	≥ 45
> 24 -48 hr	≥ 50

- **Notify Neonatal Provider and give OGG immediately if:**
 - Infant is **symptomatic**
 - Infant requires **total THREE doses OGG** since birth
 - **BG below the notification threshold (below):**
 - < 25 at any time after the first OGG dose
 - < 35 from > 4 -24 hrs of age
 - < 50 at 24-48 hrs

CONSIDERATIONS: CLINICAL PRACTICE GUIDELINES AND INDIVIDUAL PHYSICIAN/PATIENT DECISION-MAKING

- This clinical guideline provides reasonable thresholds for intervention; there is lack of consensus as to the actual definition of neonatal hypoglycemia, particularly during the first 24 hours of life.
- **Infants with whole blood glucose values below 50 (between 24 and 48 hrs of age) or below 60 (at or beyond 48 hrs of age) may be at increased risk for inborn errors of metabolism or endocrine disorders . Close follow up is recommended, and consultation with a pediatric endocrinologist may be appropriate.**
- Babies who do not reach a blood glucose of 60 by 48 hrs of age should be watched closely in the outpatient setting for signs and symptoms of metabolic conditions such as Congenital Hyperinsulinemia.
- These guidelines are designed to assist clinicians by providing an analytical framework for the evaluation and treatment of newborns outside the Newborn Intensive Care Unit or Special Care Nursery with transitional neonatal hypoglycemia. They are not intended to either replace a clinician's judgment or to establish a protocol for all patients with a particular condition.
- Some patients will not fit the clinical conditions contemplated by a guideline.
- Guidelines will rarely establish the only appropriate approach to a clinical problem. However, guidelines do represent an evidence-based and/or expert consensus regarding the clinical problem and reasons for deviating from the guideline should be apparent in the record.

40% ORAL GLUCOSE GEL DOSING CHART

Recommended dose = 0.5mL/kg

Birth Weight	mL to administer
≤ 2 kg	1 mL
> 2 – 2.5 kg	1.25 mL
> 2.5 – 3 kg	1.5 mL
> 3 – 3.5 kg	1.75 mL
> 3.5 – 4 kg	2 mL
> 4 – 4.5 kg	2.25 mL
> 4.5 – 5 kg	2.5 mL