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

- **“AT RISK”** = SGA (<10%ile BW), LGA (>90%ile BW), IDM, Late PT (34 0/7 → 36 6/7 Birth GA), other clinical situations per physician discretion
- **Bedside Glucose (BG):** Screening is based on bedside glucose “BG” (whole blood glucose; typically 10-18% lower than plasma glucose)
- 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

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<table>
<thead>
<tr>
<th>Birth → 4 hrs</th>
<th>&gt; 4 → 48 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Begin feeding</strong> within 60 min of birth</td>
<td><strong>Continue feeds q2-3hrs and perform pre-feed BG screen</strong></td>
</tr>
</tbody>
</table>
| **BG screen #1** at 30 min after completion of first feed | **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 |
| If ≥35: continue feeds q2-3hrs and perform pre-feed BG screen | **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 (not 1 hr after feed)
| If <35:  
  - Administer OGG immediately
  - Place skin-to-skin and feed
  - Repeat BG 1 hr after OGG dose (not 1 hr after feed) | **BG ≥45 when between 4 and 24 hours of age**
  - OGG dose not needed
  - Continue feeds q2-3hrs and perform pre-feed BG screen
  - From 24-48 hours Notify Neonatal Provider if BG < 50 |

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![Advocate Children's Hospital](image)

**WHEN: 4 consecutive values in target range for age in hrs:**
- Birth – 4 hr ≥35
- > 4-24 hr ≥45
- >24 – 48 hr ≥50

**Revised 2.14.2017**
DISCLAIMER REGARDING 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 CAH.
• 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

<table>
<thead>
<tr>
<th>Birth Weight</th>
<th>mL to administer</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2 kg</td>
<td>1 mL</td>
</tr>
<tr>
<td>&gt; 2 – 2.5 kg</td>
<td>1.25 mL</td>
</tr>
<tr>
<td>&gt; 2.5 – 3 kg</td>
<td>1.5 mL</td>
</tr>
<tr>
<td>&gt; 3 – 3.5 kg</td>
<td>1.75 mL</td>
</tr>
<tr>
<td>&gt; 3.5 – 4 kg</td>
<td>2 mL</td>
</tr>
<tr>
<td>&gt; 4 – 4.5 kg</td>
<td>2.25 mL</td>
</tr>
<tr>
<td>&gt; 4.5 – 5 kg</td>
<td>2.5 mL</td>
</tr>
</tbody>
</table>

Most current protocol can be accessed @ www.advocatedocs.com/pedsguidelines