

# NEONATAL HYPOGLYCEMIA

**SYMPTOMATIC HYPOGLYCEMIA (BG < 40 MG/DL) – NOTIFY LIP STAT**  
*Provide glucose gel 0.5 mL/kg*

## Asymptomatic Infant with Risk Factors\*

*(To be used for infants in the first 48 hours of life)*

**BIRTH THROUGH 4 HOURS OF LIFE:**

- First hour: Uninterrupted skin to skin
- Initiate first feed by 1 hour of life
- Obtain BG at **90** minutes of life

**AFTER 4 HOURS OF LIFE:**

- Feed at least every 2-3 hours
- Check BG prior to each feeding

**<25 MG/DL**

- Continue skin to skin
- Give **dextrose gel** + BF
- If poor latch, feed measurable amount +
- **Notify NBN LIP**
- Recheck BG in 1 hour

**25 – 40 MG/DL**

- Continue skin to skin
- Give **dextrose gel** + BF
- If poor latch, feed measurable amount +
- Recheck BG in 1 hour

**> 40 MG/DL**

ROUTINE CARE  
*(See box to right)*

→

**< 35 mg/dL** Give **dextrose gel** (max 3 doses)  
 BF or feed measurable amount if poor latch +  
 Call NBN LIP, re-check BG in 1 hour

**35 – 45 mg/dL** Give **dextrose gel** (max 3 doses)  
 Feed and re-check BG in 1 hour  
 If no improvement, **notify NBN LIP**

**≥ 46 mg/dL** Feed on demand at least every 2-3 hours

If blood glucose is < 40 mg/dL 1 hour after second dose of dextrose gel, **notify NBN LIP**. Continue skin to skin.

**Three normal\*\* consecutive pre-prandial BGs = PASS**

*Call NBN LIP if infant has not passed protocol by 12 hours of life.*  
**If infant required supplementation to PASS,**  
*continue to supplement and discuss feeding plan with LIP.*

**DEXTROSE GEL DOSING GUIDELINES**

Dextrose 40% Gel (200 mg/kg)  
*Dose 0.5 mL/kg - massage into buccal mucosa*

\* **Risk Factors**- IDM/GDM, <37 weeks, initial Apgar <6, maternal beta-blocker, no prenatal care, SGA, LGA (see page 2)

+ **Measurable supplementation:** 3-5 mL/kg expressed colostrum / donor milk / formula.

\*\* **Normal** = BG ≥ 41 mg/dL (birth – 4 hrs) or ≥ 46 mg/dL (after 4 hrs)

KEY LEARNING POINTS		
Symptoms of Hypoglycemia		Interventions to Minimize Hypoglycemia
<ul style="list-style-type: none"> <li>• Poor feeding</li> <li>• Irritability</li> <li>• Tremors</li> <li>• Jitteriness</li> <li>• Exaggerated Moro</li> </ul>	<ul style="list-style-type: none"> <li>• Poor tone</li> <li>• Persistent hypothermia</li> <li>• Lethargy</li> <li>• Seizure</li> </ul>	<ul style="list-style-type: none"> <li>• Keep infant skin-to-skin</li> <li>• Avoid cold stress</li> <li>• Warm heel before obtaining BG</li> <li>• Assist with latch/feeding</li> </ul>

## Gender/Gestation Growth Chart Criteria

35-36 6/7 weeks FENTON curve, ≥ 37 weeks WHO curve

Gestational Age	Male <10% SGA	Male >90% LGA	Female <10% SGA	Female >90% LGA
35	1950 g	3050 g	1850 g	2900 g
36	2200 g	3300 g	2100 g	3200 g
≥ 37 weeks	2760 g	4000 g	2680 g	3850 g

### Maternal Beta-Blockers:

labetalol, metoprolol, propranolol, carvediol, esmolol, atenolol, pindolol, sotalol

### Algorithm Key

<b>BG</b>	Blood glucose
<b>BF</b>	Breastfeed
<b>LIP</b>	Licensed independent practitioner
<b>IDM</b>	Infant of a diabetic mother
<b>GDM</b>	Gestational diabetes mellitus
<b>LGA</b>	Large for gestational age
<b>SGA</b>	Small for gestational age
<b>LPT</b>	Late preterm infant

## Gel Administration

### DEXTROSE GEL DOSING GUIDELINES

**Recommended dose = 0.5mL/kg**

Birthweight	Volume of gel to administer
> 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

### LIMITS:

1 dose per hour  
3 total doses per infant



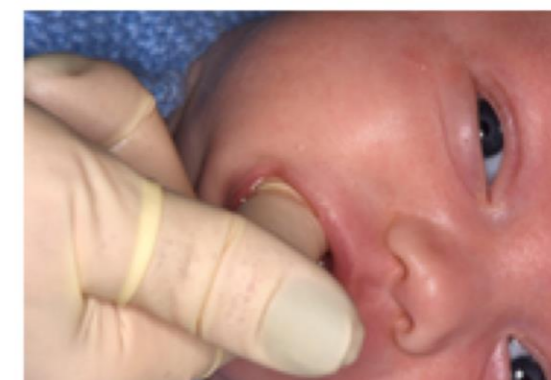
Squeeze weight based dose into syringe



Place partial dose on latex free gloved finger



Dry the buccal cavities with a sterile 2 x 2



Massage into buccal mucosa alternating sides until dose is complete.