

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

< 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

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.*

<25 MG/DL	25 – 40 MG/DL	> 40 MG/DL
<ul style="list-style-type: none"> • Continue skin to skin • Give dextrose gel + BF • If poor latch, feed measurable amount + • Notify NBN LIP • Recheck BG in 1 hour 	<ul style="list-style-type: none"> • Continue skin to skin • Give dextrose gel + BF • If poor latch, feed measurable amount + • Recheck BG in 1 hour 	<p>ROUTINE CARE (See box to right)</p> <p style="font-size: 2em;">→</p>

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

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

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

BG	Blood glucose
BF	Breastfeed
LIP	Licensed independent practitioner
IDM	Infant of a diabetic mother
GDM	Gestational diabetes mellitus
LGA	Large for gestational age
SGA	Small for gestational age
LPT	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.