

HYPOGLYCEMIA MANAGEMENT FOR THE NEWBORN

- PURPOSE:** To outline the management of hypoglycemia newborns.
- SUPPORTIVE DATA:** Hypoglycemia is a potential problem in newborns; the blood glucose within the first 24 hours after birth should be ≥ 40 mg/dL in term neonates, and ≥ 30 mg/dL in preterm neonates. Thereafter, the level should be ≥ 45 mg/dL. Hyperinsulinemia, delayed feeding and deficient glycogen stores are the most common etiologies. Defective counter-regulatory hormone release, hyperinsulinism, and inherited metabolic disorders are causes of persistent hypoglycemia in the newborn.
- Newborns with increased risk for hypoglycemia include the following:
- Signs/symptoms (S/S) of hypoglycemia
 - Diabetic mother
 - Large for gestational age
 - Small for gestational age
 - Premature less than 37 gestational weeks
 - Birth weight less than 2500 gm or greater than 4000 gm
 - Suspected or confirmed Down Syndrome
 - Born without medical assistance outside of the hospital
 - Multiple gestations
 - S/S of anemia or polycythemia
 - 5 minute APGAR less than 6
- Breastfeeding is the optimal form of providing nutritional support for the newborn.
- ASSESSMENT:**
1. Assess the following upon admission and a minimum of q 4 h or as ordered for the physician:
 - Vital signs (VS)
 - S/S of hypoglycemia
 - Neurological: tremors, jitteriness, hypotonia, irritability, lethargy, diaphoresis, pallor, seizures, high-pitched cry, poor feeding, coma
 - Cardiovascular/respiratory: pallor, tachypnea, bradycardia, periodic breathing, apnea, cardiac arrest
- MAINTENANCE & REPORTABLE CONDITIONS:**
2. Initiate the following (glucose checks and feeding require physician's order):
 - In Labor & Delivery initiate Guidelines for Management of Hypoglycemia in the Newborn (L&D)
 - In NICU, initiate Guidelines for Management of Hypoglycemia in the Newborn (NICU)
- PATIENT/FAMILY TEACHING:**
3. Instruct on the following:
 - S/S of hypoglycemia
 - Feeding schedule and amounts
- ADDITIONAL PROTOCOLS:**
4. Refer to the following as indicated:
 - Physiologic Monitoring/Hygiene/Comfort – Newborn/Pediatric
 - Central Venous Catheter
 - Breastfeeding/ Bottle-feeding Management
 - Arterial Line
 - Intravenous Therapy
- DOCUMENTATION:**
5. Document in accordance with documentation standards.

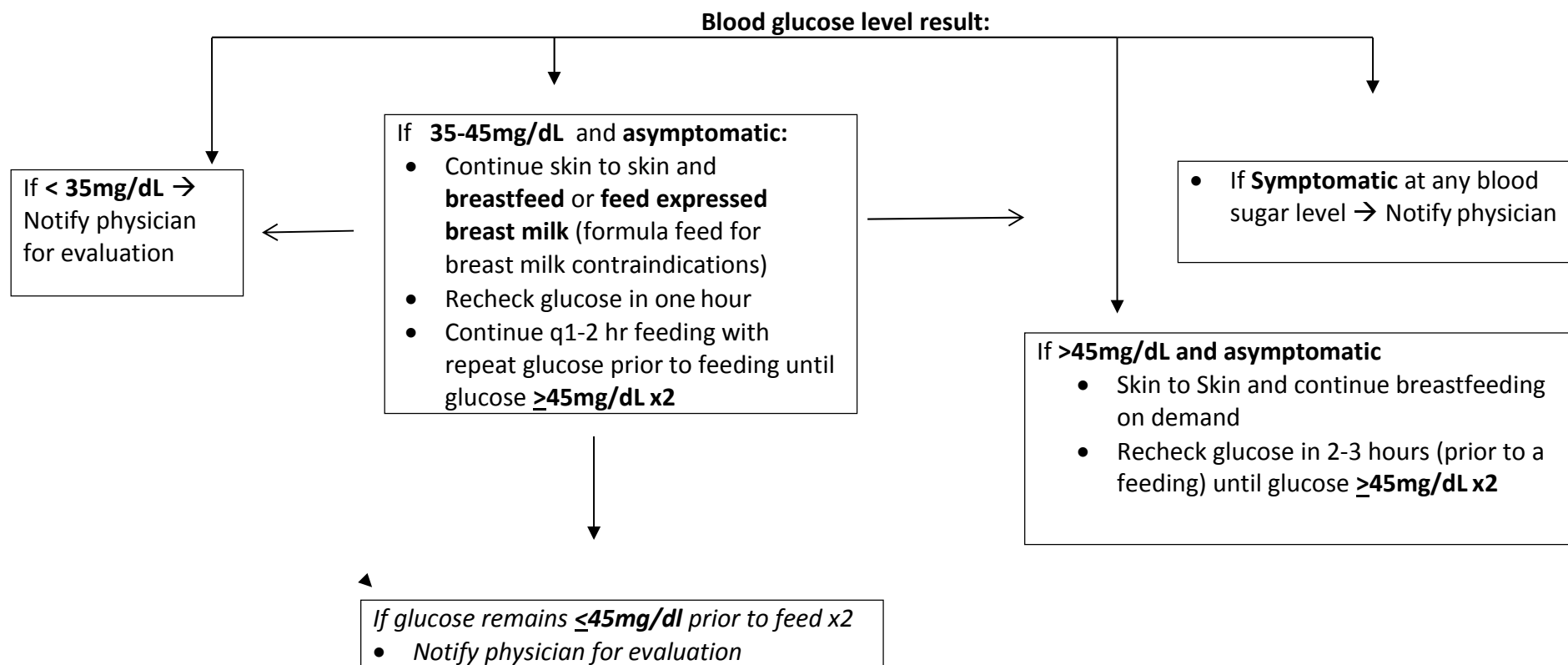
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Guidelines for Management of Hypoglycemia in the Newborn - NICU

(Screen all high risk infants – IDM, birth weight $\leq 2500\text{gm}$ or $\geq 4000\text{gm}$, gestational age $< 37\text{weeks}$)

****PLACE ALL INFANTS SKIN TO SKIN & INITIATE BREASTFEEDING UPON DELIVERY UNLESS MEDICALLY CONTRAINDICATED****

****Check Blood Glucose within 30—60 minutes of life****

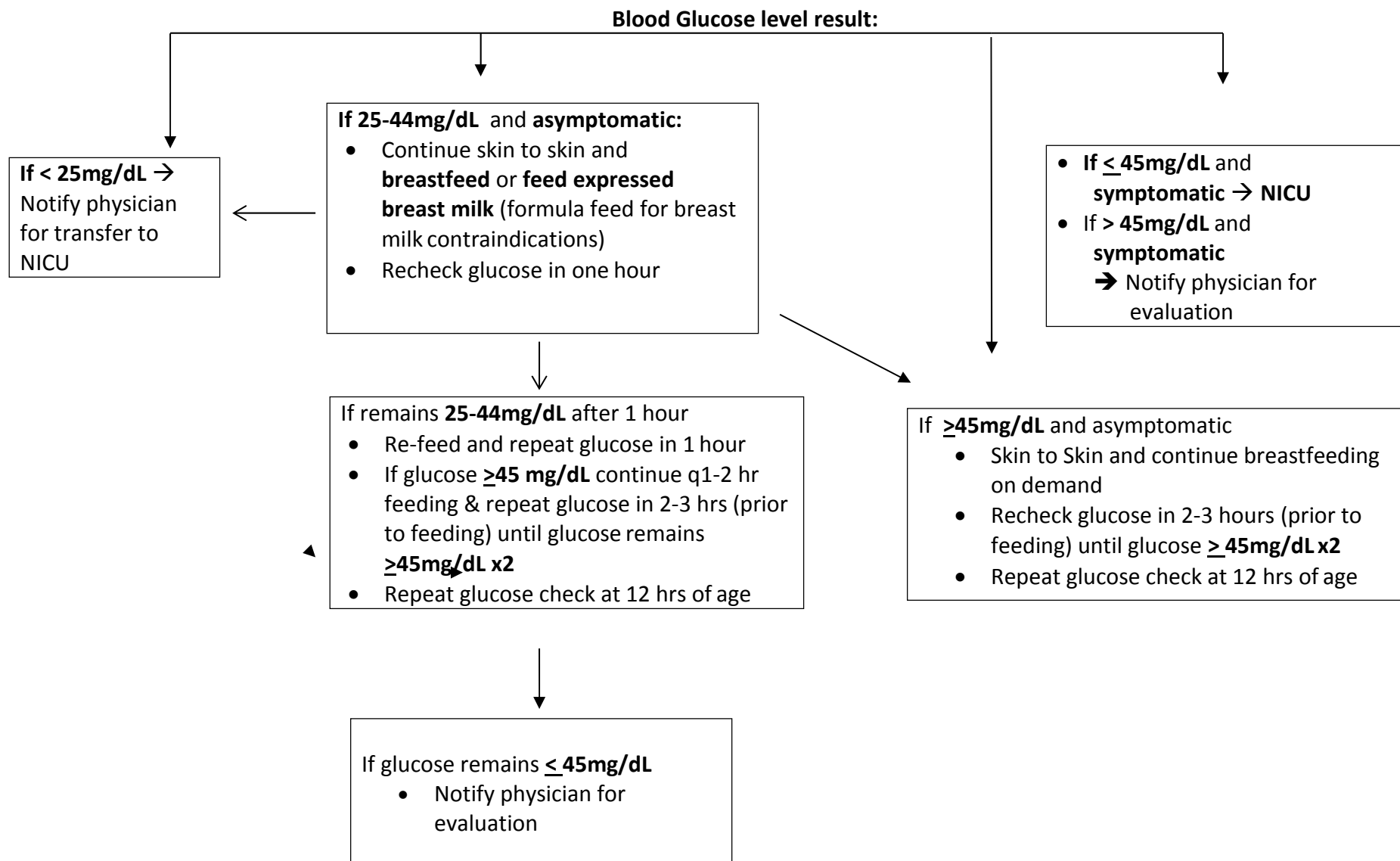


Guidelines for Management of Hypoglycemia in the Newborn (L&D)

(Screen all high risk infants – IDM, birth weight $\leq 2500\text{gm}$ or $\geq 4000\text{gm}$, gestational age $< 37\text{weeks}$)

****PLACE ALL INFANTS SKIN TO SKIN & INITIATE BREASTFEEDING UPON DELIVERY UNLESS MEDICALLY CONTRAINDICATED****

**** Check Blood Glucose/ Hemoglobin at approximately 60 minutes of life or at any time/age if symptomatic****



Guidelines for Management of Hypoglycemia in the Newborn - NICU

(Screen all high risk infants – IDM, birth weight <2500gm or >4000gm, gestational age <37weeks)

****PLACE ALL INFANTS SKIN TO SKIN & INTIATE BREASTFEEDING UPON DELIVERY UNLESS MEDICALLY CONTRAINDICATED****

****Check Blood Glucose within 30—60 minutes of life****

Blood glucose level result:

If < 35mg/dL:

- Notify physician for evaluation

If 35-45mg/dL and asymptomatic:

- Continue skin to skin and breastfeed or feed expressed breast milk (formula feed for breast milk contraindications)
- Recheck glucose in one hour
- Continue every 1-2 hr feeding with repeat glucose prior to feeding until **glucose >45mg/dL x2**

If glucose remains <45mg/dl prior to feed x2:

- Notify physician for evaluation

If Symptomatic at any blood sugar level :

- Notify physician

If >45mg/dL and asymptomatic:

- Skin to Skin and continue breastfeeding on demand
- Recheck glucose in 2-3 hours (prior to a feeding) until glucose >45mg/dLx2

Provider Last Name (Print):	
Provider Signature	
Date:	Time: AM / PM
RN Last Name (Print):	
RN Signature	
Date:	Time: AM / PM

Name	_____
MRN	_____
DOB	_____
FIN	_____

Guidelines for Management of Hypoglycemia in the Newborn (L&D)

(Screen all high risk infants – IDM, birth weight $\leq 2500\text{gm}$ or $\geq 4000\text{gm}$, gestational age $< 37\text{weeks}$)

****PLACE ALL INFANTS SKIN TO SKIN & INITIATE BREASTFEEDING UPON DELIVERY UNLESS MEDICALLY CONTRAINDICATED****

**** Check Blood Glucose/ Hemoglobin at approximately 60 minutes of life or at any time/age if symptomatic****

Blood Glucose level result:

If $< 25\text{mg/dL}$:

- Notify physician for transfer to NICU

If $25\text{-}44\text{mg/dL}$ and asymptomatic:

- Continue skin to skin and breastfeed or feed expressed breast milk (formula feed for breast milk contraindications)
- Recheck glucose in one hour

If remains **$25\text{-}44\text{mg/dL}$** after 1 hour:

- Re-feed and repeat glucose in 1 hour
- If glucose **$> 45\text{ mg/dL}$** continue every 1-2 hr feeding & repeat glucose in 2-3 hrs (prior to feeding) until glucose remains **$> 45\text{mg/dL}$** x2
- Repeat glucose check at 12 hrs of age

If glucose remains **$< 45\text{mg/dL}$** :

- Notify physician for evaluation

If $> 45\text{mg/dL}$ and asymptomatic:

- Skin to Skin and continue breastfeeding on demand
- Recheck glucose in 2-3 hours (prior to feeding) until glucose **$> 45\text{mg/dL}$** x2
- Repeat glucose check at 12 hrs of age

If $< 45\text{mg/dL}$ and symptomatic :

- Notify physician for transfer to NICU

If $> 45\text{mg/dL}$ and symptomatic:

- Notify physician for evaluation

Provider Last Name (Print):	
Provider Signature	
Date:	Time: AM / PM
RN Last Name (Print):	
RN Signature	
Date:	Time: AM / PM

Name _____
MRN _____
DOB _____
FIN _____