PEDIATRIC NEWBORN MEDICINE CLINICAL PRACTICE GUIDELINES

Neonatal Glucose Assessment and Clinical Management

Clinical Practice Guideline: Neonatal Glucose Assessment and Clinical Management

Points of emphasis/Primary changes in practice:

1. Blood glucose monitoring and treatment should occur at times independent of feeding. Infants may breast or bottle feed as tolerated. This change is based on literature suggesting that feeding is not a major driver of infant plasma glucose in the first 48 hours of life (Stanley CA *et al*, J Peds, 2015). ***All "at risk" infants should be fed within one hour of life, by breast or bottle, per parental preference, and on an ongoing basis as determined by the care team and family.***
    - NOTE: After 48 hours of life, feeding status ***does*** affect BG levels. Thus, for infants older than 48 hours, all BG measurement recommendations will be stated relative to feeding times (ac=before feeding, pc=after feeding.)

2. We are implementing the use of a dextrose gel that has been used for neonatal hypoglycemia and found to be safe and effective (RR 0.57, 95% CI 0.33-0.98) in reducing need for IV glucose in a large New Zealand cohort of 35-42 week infants "at risk" for hypoglycemia (Harris *et al*, Lancet, 2013). The goal of this practice change is to encourage exclusive breastfeeding (for families who choose this) and to minimize separation between mother and infant. Dextrose gel may be administered a maximum of two times during an infant's hospital stay.

3. Until the protocol specifies "Initiate transfer to the NICU", assessment at treatment should occur in the mother's room to minimize separation between mother and infant.

4. There are two distinct pathways, one for infants < 48hours old (transitional) and one for infants > 48 hours old (persistent), given the differences in hormonal physiology in the two time periods.

Rationale for change:
The goal of the consensus committee was to incorporate new national consensus guidelines (American Academy of Pediatrics, 2011 and Pediatric Endocrine Society, 2014) and the experience here at our institution to create revised guidelines that address two major changes/issues: 1) Providing two distinct guidelines—one for infants 0-48 hours and one for infants older than 48 hours of age. 2) Minimizing separation between mother and infant and supporting breastfeeding.

Clinical Guideline Name	Neonatal Glucose Testing and Clinical Management
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Contact Person	Rimi Sen, MD
Approved By	Department of Pediatric Newborn Medicine Clinical Practice Council 09/10/15 CWN PPG 09/09/15 BWH SPP Steering 09/16/15 Nurse Executive Board/CNO 9/21/15

This is a clinical practice guideline. While the guideline is useful in approaching the care of the neonate at risk for hypoglycemia, clinical judgment and / or new evidence may favor an alternative plan of care, the rationale for which should be documented in the medical record.

I. Purpose

The purpose of this clinical practice guideline is to incorporate new national consensus guidelines (AAP, 2011 and Pediatric Endocrine Society, 2014) and the experience of our institution to create revised guidelines that address two major changes/issues:

1) Providing two distinct guidelines—one for infants 0-48 hours and one for infants older than 48 hours of age.
2) Minimizing separation between mother and infant and supporting breastfeeding.

This clinical practice guideline is primarily relative to the clinical management of hypoglycemia. Significant hyperglycemia is defined as blood glucose > 120. For infants in the Center for Labor and Birth with a blood glucose >120, call NICU triage for a consult and in Well Baby Nursery call the private pediatrician.

II. All CPGs reflect the NICU Nursing Standards of Care. All relevant nursing PPGs are listed below.

WNH A.1 Alternative Feeding Methods for Breastfeeding Infants (check all hyperlinks)
WNH B.2 Infant Heelstick Blood Sampling
WNH B.9 Infant Feeding
WNH H.6 Human Milk Administration
WNH I.6 Care of the Late Preterm Infant and Infants less than 2500 gms
WNH R.4 Newborn Rapid Response Situations and Infant Codes
WNH Standard Policy Statements
WNH T.1 Infant Thermoregulation

III. Prevention of Hypoglycemia

- Initiate parent education regarding prevention, evaluation and treatment of hypoglycemia.
- Optimize thermoregulation: dry hat at all times for infants who are at risk or being managed for hypoglycemia, avoid of wet clothing, warm blankets when wrapped, ambient temperature set to ≥ 72°F.
- Initial bath should be held until monitoring for hypoglycemia has been completed.
- Encourage skin to skin care for all infants, particularly those at risk for hypoglycemia.
- Axillary temperature should be measured at the time of all BG measurements.
- "Skin to skin/incubator care" refers to baby being either skin to skin or in an incubator at all times when not feeding.
- All SGA infants (<10% for gestational age) and preterm (<37 weeks) should be considered for exclusive skin to skin/ incubator care (radiant warmer instead of incubator on CWN 5) until thermoregulation, euglycemia, and adequate po feeding is achieved.

III. Transitional Hypoglycemia (Infants less than 48 hours of life, Algorithm A)

Definitions:

- Plasma glucose less than 45 mg/dL should be considered hypoglycemia in the first 48 hours of life (Adamkin *et al*, Pediatrics, 2011.)
- This is based on literature suggesting that in the first 48 hours of life, infant's transition from a lower *in utero* set point to a higher lifelong set point. It is expected that infants will have blood glucose as low as 45 mg/dL in the first few hours of life, which should increase over the first 48 hours of life. It should be noted that infants in the first 48 hours of life have a state of "regulated hyperinsulism" resulting in suppression of ketone production. This leads to newborn infants being at particular high risk for hypoglycemic neurologic injury (Thornton *et al*, J Peds, 2015.)

Who should be tested?

1. Symptomatic infants: Irritability, tremors, jitteriness, lethargy, hypothermic
    a. These infants require one BG test. If normal (≥45) x1, no further BG testing required. If abnormal, follow Algorithm A.
2. Infants less than 48 hours old who fall into any of these categories should have a BG tested within one hour of birth and evaluation by MD as needed (please see Algorithm A):

Risk Category 1	Risk Category 2
Infants of diabetic mothers (IDM) (any class or treatment) LGA based on weight for gestational age >90% Post-dates >41 weeks 5 min Apgar <7 Respiratory distress >1hr Maternal treatment with beta blockers (propranolol) for any length of treatment or terbutaline for > 48hrs	SGA (10%, see below) Preterm (<37 0/7 weeks) Birth weight <2500gm Family history of hypoglycemia, midline abnormalities (e.g. midline facial abnormalities or microphallus) or congenital syndrome associated with hypoglycemia (e.g. Beckwith Wiedemann)

If BG is ≤30mg/dL (critically low) or infant is symptomatic:

- Initiate transfer to NICU (discuss with attending pediatrician during the day and page DR-1 overnight)
- Consider holding feeding if BG≤30mg/dL and infant is symptomatic, at discretion of team
- If infant has previously received dextrose gel 0 or 1 times, provide dextrose gel and feeding (breast or bottle per parental preference)
- If BG<20 mg/dL, provide D10W bolus (2ml/kg) and start IVF at gestational age appropriate rate via PIV (60-80ml/kg/day)
- If BG 20-25, begin D10W at gestational age appropriate rate via PIV (60-80ml/kg/day)
- If BG 26-30 and infant has received dextrose gel more than two times already (and thus cannot receive additional gel for this BG), start PIV with D10W at gestational age appropriate rate. If infant did receive dextrose gel for the BG, do not start PIV unless repeat BG is rechecked and still low
- Recheck BG 30 min after intervention
- Adjust Glucose Infusion Rate (GIR) to goal BG>45
- Consider weaning GIR by 0.5 if BG >50 and by 1 if BG>60

$$\text{GIR (mg/kg/min)} = \frac{\text{\% glucose * IV rate (mL/hr)}}{\text{6* body weight (kg)}}$$

Please see link to the "Table to quickly calculate glucose infusion rates (GIR) in neonates" for further assistance.

If BG is 31-44mg/dL (low):

- RN administers Dextrose Gel, 40%, 0.5ml/kg, massaged into buccal mucosa (gel is available in unit Omnicell as override medication)
- 30 minutes after administration, plasma glucose should be rechecked.
    - If BG is still low, dextrose gel can be administered one more time and BG rechecked 30 min later, and MD should be notified (on CWN 5 MD is DR1, on CWN 9 & 10, MD is covering pediatrician.) The RN/MD conversation should specifically address whether formula supplementation should be initiated. An important point of emphasis here is that formula in this setting is being used as a medication to avoid ongoing hypoglycemia rather than as a method of feeding. For this reason, it should also be stated that formula is preferable to pasteurized human donor milk (PDHM) because of its higher and more consistent glucose content compared to PHDM.
        - NOTE: Dextrose gel cannot be given more than two times during the hospital stay
    - If BG is still low after two gel administrations, initiate transfer to NICU and notify MD as above

If BG is >45mg/dL (normal), infant can receive standard care:

- Infants who are in risk category 1: Infants born to all classes of diabetic mothers or mothers receiving beta blockers, large for gestational age, low 5 min Apgar <7, or respiratory distress >1hr should have a total of three q3h (at approximately 1, 4 and 7 hours of life) BG checks, all of which need to be ≥45 mg/dl to "graduate" from the hypoglycemia pathway.
- Infants who are in risk category 2: small for gestational age, preterm or late term, have a family history of hypoglycemia, have midline defects or were symptomatic require more prolonged monitoring for hypoglycemia. These infants will have three q3h BG checks, followed by two q6h (at approximately 1, 4, 7, 13 and 19 hours of life) BG checks, all of which should be ≥45 mg/dl. ***One of these checks should be pre-feed.***
- For infants at the highest risk for an underlying endocrinopathy or metabolic disorder (those with a family history of hypoglycemia, midline defect or syndrome associated with hypoglycemia or previously symptomatic), a safety fast should be strongly considered.
- A safety fast should be ordered by the attending pediatrician (if infant is in the well-baby nursery) or neonatologist (if infant is in the NICU.)
- Unless infant requires transfer to NICU or NICU triage per algorithm, all testing and treatment can be performed in mother's room. The goal of this practice change is to minimize separation between mother and infant.

IV. Persistent Hypoglycemia (Infants 48 hours of life or older, Algorithm B)

Definitions:

- Plasma glucose less than 60mg/dL should be considered hypoglycemia in infants over 48 hours of age. Around this time, infants should be approaching their lifelong glycemic set point (Thornton *et al*, J Peds, 2015.)

If BG is ≤45mg/dL (critically low) or infant is symptomatic:

- Initiate transfer to NICU
- If infant has never received dextrose gel, provide dextrose gel and feed (breast or bottle per parental preference)
- If BG<30 mg/dL, provide D10W bolus (2ml/kg) and start at gestational age appropriate rate via PIV (60-80ml/kg/day)
- If BG 30-39, begin D10W at gestational age appropriate rate via PIV (60-80ml/kg/day)
- If BG 40-45,and infant can receive dextrose gel, do not start PIV unless BG rechecked 30 min after gel administration is still <60mg/dL
- If infant cannot receive additional gel for this BG, and has a BG 40-45, start PIV with D10W at gestational age appropriate rate.
- Recheck BG 30 min after intervention
- Adjust Glucose Infusion Rate (GIR) to goal BG≥60mg/dL
- Consider weaning GIR by 0.5 if BG ≥65 mg/dL and by 1 if BG≥75mg/dL

If BG 46-59 mg/dL(low):

- Provide dextrose gel ASAP once
- Allow infant to breast or bottle feed (per parental preference) po ad lib, at discretion of team
- Notify MD (MD is covering pediatrician during the day and DR-1 over night)
- Recheck BG 30 min after glucose gel
- If subsequent BG is ≤59, proceed to RED pathway
- If subsequent BG is ≥60, restart GREEN pathway

If BG is >60mg/dL (normal):

- Continue breast or formula feeding po ad lib
- If *off* IV glucose, can stop BG check if BG≥60mg/dL x 3 before feeding (approximately q3h)
- If *on* IV glucose, (TPN or IVF) BG should be checked AT LEAST BID or with IVF rate changes while on IV glucose.

Notes and Special Considerations for persistent hypoglycemia:

- In cases of prolonged hypoglycemia, infants who are exclusively breastfed may require supplementation or bottle-feeding of pumped milk to better understand the contribution of maternal milk production in etiology of hypoglycemia.
- Consider endocrine consultation and check newborn screening result (can call state lab for a quicker turn-around time if high suspicion) around 4-5 days of life if:
    - GIR is high (>8) or increasing
    - Infant is requiring caloric fortification to maintain normal BG. These infants may be trialed off caloric fortification before discharge. If BG normal (q3h ac BG ≥60mg/dLx3 and then q6h ac BG≥60mg/dLx3) on 20 kcal/oz then endocrine consultation or safety fast (below) may not be necessary.
    - Infant has a family history of hypoglycemia or is syndromic
- Consider six hour safety fast before discharge for infants at highest risk for an underlying metabolic disorder or endocrinopathy. These are infants who:
    - Discharged home on caloric fortification due to hypoglycemia
    - Required IV glucose after day of life 4 for hypoglycemia
    - Family history of hypoglycemia, syndromic or has midline defects
    - A safety fast should be ordered by the attending pediatrician (if infant is in the well-baby nursery) or neonatology team (if infant is in the NICU.)

Safety Fast:

- A safety fast is different than a diagnostic fast.
    - A safety fast is a way to unmask an underlying endocrinopathy or metabolic disorder in a high-risk infant (see risks above).
    - It involves allowing a high-risk infant to go 6 hours without feeding and checking serial blood glucose measurements.
    - If a safety fast is failed, then an endocrinologist should be consulted and a diagnostic fast (aka glucagon stimulation test) considered.
- All safety fasts should be performed after 48 hours of age.
- Please see Appendix C: Instructions for Safety Fast, for more detailed information and instructions regarding the safety fast for infants in the well baby nursery and NICU.

IIV. References

1. Committee on Fetus and Newborn, Adamkin DH. Postnatal glucose homeostasis in late-preterm and term infants. Pediatrics 2011;127:575-9.

2. Thornton PS, Stanley CA, De Leon DD, Harris D, Haymond MW, Hussain K, Levitsky LL, Murad MH, Rozance PJ, Simmons RA, et al. Recommendations from the Pediatric Endocrine Society for Evaluation and Management of Persistent Hypoglycemia in Neonates, Infants, and Children. J Pediatr 2015;

3. Stanley CA, Rozance PJ, Thornton PS, De Leon DD, Harris D, Haymond MW, Hussain K, Levitsky LL, Murad MH, Simmons RA, et al. Re-evaluating "transitional neonatal hypoglycemia": mechanism and implications for management. J Pediatr 2015;166:1520,1525.e1.

4. Harris DL, Weston PJ, Signal M, Chase JG, Harding JE. Dextrose gel for neonatal hypoglycaemia (the Sugar Babies Study): a randomised, double-blind, placebo-controlled trial. Lancet 2013;382:2077-83.

5. Chowing R, Adamkin DH. Table to quickly calculate glucose infusion rates in neonates. J Perinatol 2015;35(7): 463. doi: 10.1038/jp.2015.42. Epub 2015 Apr 23.

Algorithm A: Transitional Hypoglycemia Guideline for Infants who are at risk* 0-48 hours of age

All infants should be fed within the first hour and prior to first BG check, unless symptomatic.

GREEN PATHWAY

Normal
≥45mg/dL

Risk Category 1:
a – g

- Continue breast or formula feeding po ad lib
- Repeat q3h BGx2 (total of 3)[3]
- Can stop BG check if BG≥45mg/dL x 3

Risk Category 2:
h - l

- Continue breast or formula feeding po ad lib
- Repeat q3h BG x2 and then q6hx2[3] with at least one prefeed check
- Can stop BG check if BG≥45mg/dL at all checks
- Consider 6 hour safety fast before discharge for risk category j, k, l

*START HERE: BABIES AT RISK FOR HYPOGLYCEMIA

(Infant should be fed and have first BG within one hour of birth):

a) **Infant of Diabetic Mother (IDM)**
b) **LGA (>90%, see below)**
c) **Post-dates >41 weeks**
d) **5 min Apgar<7**
e) **Maternal beta blockers or terbutaline >48hrs**
f) **Respiratory distress > 1 hr**

Risk category 1 – Measure BG at approximately 1, 4, and 7[5] of life.

g) **Symptomatic infants[6] who had BG <45**

h) **SGA (10%, see below)**
i) **Preterm (<37 0/7 weeks)**
j) **Birth weight <2500gm**
k) **Family history of hypoglycemia**
l) **Congenital syndrome (e.g. Beckwith Wiedemann) or midline abnormalities (e.g. cleft lip/palate, microphallus)**

Risk category 2 – Measure BG at approximately 1, 4, 7, 13, and 19 hrs[5] of life. Last measure should be prefeed.

GA	SGA		LGA	
	Female	Male	Female	Male
37 - 37 6/7	<2250#	<2400#	>3550	>3700

YELLOW PATHWAY

Low
31 - 44 mg/dL

Administer glucose gel ASAP[1] and feed infant per parental feeding preference.

Repeat BG testing 30 min after gel administration and feeding complete

- If BG #2 is <30mg/dL give gel, notify MD, and proceed to the red pathway.
- If BG #2 is 31- 44 mg/dL, repeat glucose gel ONE TIME ONLY[4], notify MD to discuss supplementation with up to 30 mL of infant formula (consult w/ family).
- If BG #2 is ≥ 45, start **GREEN** pathway

Repeat BG testing 30 min after gel administration and formula supplementation complete

- If BG #3 is <30mg/dL, proceed to **RED** pathway and notify MD
- If BG #3 is 31 – 44 mg/dL notify MD to discuss supplementation with up to 30 mL of infant formula (consult w/ family) and consider transfer to NICU[2].
- If BG #3 is ≥ 45, start **GREEN** pathway

Repeat BG testing 30 min after formula supplementation complete

- If BG is < 45 mg/dL, proceed to **RED** pathway and notify MD
- If BG is > 45, start **GREEN** pathway

RED PATHWAY

Critically Low
≤30 mg/dL

Initiate transfer to NICU

BG <20

If gel has been given 0 or 1 time, **give gel,** then proceed to steps below

- Place PIV and start D10W at GA appropriate rate
- Provide D10W bolus (2ml/kg)

BG 20-25

If gel has been given 0 or 1 time, **give gel,** then proceed to steps below

- Place PIV and start D10W at GA appropriate rate
- Feed per parental preference

BG 26 – 30 or transferred from yellow pathway

If gel has been given 0 or 1 time, **give gel,** then proceed to steps below

- If gel already administered x2, obtain plasma glucose. If < 30, place PIV, start D10W
- Feed per parental preference

- Recheck BG 30 min after above intervention

- Adjust GIR to goal BG>45
- Consider weaning GIR by 0.5 if BG >50 and by 1 if BG>60

- If gel was given and BG 31-44 after gel, follow yellow pathway in NICU Triage
- If gel was given and BG >45 after gel, return baby to newborn nursery and start green pathway

38 - 38 6/7	<2500[#]	<2550	>3850	>4000
39 - 39 6/7	<2700	<2850	>4000	>4150
40+	<2800	<2950	>4100	>4250

[#]**all babies under 2500 grams should be screened for hypoglycemia**

Notes:

[1] Do not wait for MD evaluation or for completion of feeding to administer dextrose gel. Instructions for dextrose gel: Dextrose Gel, 40%, 0.5ml/kg, massage gently onto buccal mucosa. Gel is available in omnicell as override medication.

[2] Until this point, infant can be managed in the mother's room or well-baby nursery

[3] All blood glucose measurement and management in infants <48 hours are independent of feeding timing unless otherwise noted

[4] Glucose gel can be provided a maximum of two times total during hospital stay

[5] Testing at these hours of life only apply when all BG measures are normal per green pathway

[6] Symptomatic infants= jitteriness, irritability, tremors, lethargy, hypothermia. These infants require one BG test. If normal (≥45) x1, no further BG testing required. If abnormal, follow risk category 1.

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Algorithm B: Persistent Hypoglycemia Guideline for Infants 48 Hours of age or older

GREEN PATHWAY

Normal
≥60mg/dL

- Continue breast or formula feeding po ad lib
- Repeat BGx2 (total of three) *before feeding*
- If off IV glucose, can stop BG check if BG≥60mg/dL x 3 before feeing
- While on IV glucose, (TPN or IVF) BG should be checked AT LEAST BID or with IV glucose rate change

YELLOW PATHWAY

Low
46 – 59 mg/dL

- Administer glucose gel ASAP[2,4] and feed infant per parental feeding preference.
- Notify MD[1]

Repeat BG testing 30 min after gel administration

- If BG #2 is ≤ 59mg/dL, proceed to RED pathway[3]
- If BG #2 is ≥ 60mg/dL, restart GREEN pathway

RED PATHWAY

Critically Low
≤ 45 mg/dL

- Initiate transfer to NICU triage
- If infant has never received gel, **give gel**[4], then proceed to steps below
- Feed per parental preference

BG < 30

- Place PIV and start D10W at GA appropriate rate
- Provide D10W bolus (2mL/kg)

BG 30-39

- Place PIV and start D10W at GA appropriate rate

BG 40-45

- Observe infant in NICU/Triage

Recheck BG 30 min after above intervention

- If infant is on IVF, adjust GIR to goal BG>60
- Consider weaning GIR to 0.5 if BG>65 and by 1 if BG>75
- If infant is not on IVF but has already received gel, and BG after gel is ≤ 45, place PIV and start IVF at GA appropriate rate, with additional bolus if BG<30
- For infants who require prolonged IVF (>4 days) to maintain normoglycemia , see Notes 5 & 6

NOTES:

[1] MD refers to pediatrician who is assigned to infant during the day and DR-1 overnight.

[2] Do not wait for MD assessment of feeding to complete to administer dextrose gel. Dosage for dextrose gel (40%): 200 mg/kg or 0.5ml/kg, massage gently onto buccal mucosa. Gel is available in omnicell as override medication

[3] Baby can be managed in mother's room or well baby nursery until this point

[4] Dextrose gel can be provided a maximum of two times total during hospital stay

[5] Consider endocrine consultation and check newborn screening result around 5 days of life if:

- GIR is high (>8) or increasing
- Infant is requiring caloric fortification to maintain normal BG
- Infant has a family history of hypoglycemia or is syndromic

[6] Consider six hour safety fast before discharge if:

- Infant is being discharged home on caloric fortification due to hypoglycemia
- Infant required IVF after DOL 4 for hypoglycemia
- Infant has a family history of hypoglycemia, is syndromic or has midline defects

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Appendix C: Instructions for Safety Fast

Note: This is not a diagnostic fast; see page 7-8 of hypoglycemia guideline for distinction

For infants in the well baby nursery (should occur on weekdays between 8am and 4pm if possible.)

1) Notify parents and NICU triage attending that infant will be undergoing safety fast.
    - Key points of well baby to NICU communication: Name and location of infant, indication for safety fast, time when fast will start and end, what type of feeding the infant is receiving, *please reiterate that infant will be transferred to NICU triage for a STAT serum glucose check should any POC glucose obtained during the fast be <60mg/dL*
    - Key points of communication with parents: Rationale for the safety fast, education regarding non-nutritive comforting as needed during the fast and the need for immediate transfer to NICU triage for the remainder of the fast in the event a low POC glucose result
    - Consider endocrine consult based on the indication for safety fast
2) Plan for POC glucose checks at 3, 4, 5 and 6 hours after a full feed; infant should remain NPO during this safety fast.
3) If all POC glucose checks are ≥60 mg/dL, feed infant after 6 hour POC glucose. This infant has passed the safety fast.
4) If a POC glucose is <60mg/dL at any of the time points, call DR-1 and initiate transfer of infant to triage for a serum glucose check.
    - <u>If the serum glucose is ≥60 mg/dL</u>, infant will remain in NICU triage for remainder of the safety fast to have repeat serum glucose checks. If all of these glucose checks are ≥60 mg/dL, then infant has passed safety fast and will be transferred back to well baby nursery after NICU to well baby MD communication has occurred.
    - <u>If serum glucose is 45-60 mg/dL</u>, this will be considered a failed safety fast . Stop the fast, feed the infant and consult endocrinology for diagnostic fast instructions and other recommendations. Infant to be admitted to NICU.
    - <u>If a serum glucose is <45mg/dL</u>, this will also be considered a failed safety fast. Stop the fast, feed the infant and administer glucose gel per protocol. Repeat serum glucose 30 minutes after intervention, in consultation with NICU attending. Infant to be admitted to NICU.

For infants in the NICU

1) Notify parents that infant will be undergoing a safety fast; consider endocrine consultation based on indication for safety fast
2) Plan for POC glucose checks at 3, 4, 5 and 6 hours after a full feed; infant should remain NPO during this safety fast.
    a. If all POC glucose checks are ≥60 mg/dL, feed infant after 6 hour POC glucose. This infant has passed the safety fast.
    b. If a POC glucose is <60mg/dL at any of the time points, send a STAT serum glucose.
        - <u>If serum glucose is ≥60 mg/dL</u>, all subsequent glucoses for the safety fast should be from the serum (STAT central lab). If all serum glucose results are ≥60 mg/dL, infant has passed safety fast.
        - <u>If serum glucose is 45-60 mg/dL</u>, this will be considered a failed safety fast. Stop the fast, feed the infant and consult endocrinology for diagnostic fast instructions and other recommendations.
        - <u>If a serum glucose is <45mg/dL</u>, this will also be considered a failed safety fast. Stop the fast, feed the infant and administer glucose gel per protocol. Repeat serum glucose 30 minutes after intervention, in consultation with NICU attending.