Perinatal Quality Collaborative of North Carolina

Newborn Hypoglycemia Prevention and Care (NHPC) Action Plan

NHPC Action Plan

Global Aim:

Working with PQITs in participating centers, the initiative will focus on identifying and treating symptomatic newborns with signs and symptoms of hypoglycemia and asymptomatic newborns at-risk for hypoglycemia within the first 48 hours of life.

Specific Goal:

By January 2020, PQITs in NC hospitals will utilize defined best practices to create a standard of care for screening, initiation, and management of hypoglycemia in newborns greater than or equal to 35 weeks within the first 48 hours of life.

Measures/Goals:

To create a standard of care in PQCNC hospitals that:

- Supports the development and implementation of a protocol for management and care of symptomatic newborns with signs and symptoms of hypoglycemia and asymptomatic newborns at-risk for hypoglycemia in 100% of participating hospitals
- Decreases the number of IV infusions for hypoglycemia by 25%
- Decreases the number of newborn transfers to a higher level of care by 25% solely for the diagnosis of hypoglycemia
- Monitor use of weaning protocol to decrease duration of IV infusion
- Decrease non-breastmilk supplementation for hypoglycemia by 20%
- Systematize clinical care processes of symptomatic newborns with signs and symptoms of hypoglycemia and asymptomatic newborns at-risk for hypoglycemia to promote sustainability

GOAL	PRIMARY DRIVER	INTERVENTIONS
Support the development and implementation of a protocol for management and care of symptomatic newborns with signs and symptoms of hypoglycemia and asymptomatic newborns at-risk for hypoglycemia in 100% of participating hospitals	Multidisciplinary team to create practice guidelines to support clinical decision-making Systematize response to treatment of hypoglycemic newborns	• Establish a treatment algorithm that guides staff to screen and manage symptomatic and asymptomatic, at-risk newborns utilizing the AAP defined glucose levels for the first 24 hours of life • Adopt criteria to identify newborns at-risk for hypoglycemia • Standardize the technique of blood glucose sampling by clinicians to ensure accurate results • Partner with patients and families to communicate care and support for newborns with hypoglycemia or at-risk for hypoglycemia • Establish a standardized IV weaning protocol for newborns who receive infusion therapy to minimize variability among providers

GOAL	PRIMARY DRIVER	INTERVENTIONS
Decrease the number of newborn transfers to a higher level of care by 25% solely for the diagnosis of hypoglycemia	Prompt alternative non-invasive treatments of care	• Promote skin-to-skin immediately following delivery • Promote early breastfeeding of newborns at-risk for hypoglycemia within 60 minutes of birth for mothers who desire to breastfeed
	Decrease separation of mother and newborn after delivery	• Provide breastfeeding support with International Board-Certified Lactation Consultants (IBCLC's) or trained staff early after delivery
Decrease non-breastmilk supplementation for hypoglycemia by 20 %	Alternative non-formula supplementation options and support desire to breastfeed	• Standardize a process to promote early feeding of colostrum, donor breastmilk, or glucose gel treatment in asymptomatic newborns with hypoglycemia before accelerating care. Formula should be last choice for early feeding supplementation. • Partner with mothers to determine best early feeding supplementation option based on desire to breastfeed • Encourage the use of glucose gel for mothers who desire to breastfeed as first line supplementation over formula to promote exclusive breastfeeding

Decrease the number of IV infusions for hypoglycemia by 25% **Monitor use of weaning protocol to decrease duration of IV infusion**	Accurate methods of obtaining glucose levels Exposure of continuous dextrose infusion therapy Processes that include force functions to support standardized clinical decisions	• Adopt verification method of bedside point of care glucose result prior to initiation of IV dextrose • Develop policy outlining management decisions of infants requiring IV dextrose including standardized IV dextrose weaning parameters • Consider protocols empowering nursing staff to wean infusion rates of infants with resolving glucose levels to expedite decision making and limit continuous dextrose infusions • Utilize EMR with clinical decision support functionality to establish desired rate and dose of dextrose infusion • Integrate EMR functions to support clinical decision making such as alerts when dose adjustments might be indicated
Systematize clinical care processes of symptomatic newborns with signs and symptoms of hypoglycemia and asymptomatic newborns at-risk for hypoglycemia to promote sustainability	Processes that include force functions to support safe, standardized clinical care	• Hardwire technique of accurate blood sampling into orientation of new hires as well as annual clinical competencies • Integrate specific hypoglycemia order sets in electronic medical record to consistently treat hypoglycemic newborns