Perinatal Quality Collaborative of North Carolina

Care of the Late Preterm Infant

CARE OF THE LPI CHARTER

Problem Statement:

The rate of late preterm births has been increasing over time. It has been recognized that this population is at increased risk for various morbidities as well as mortality. Late preterm infants (LPI) (those born 34 to 36 6/7 weeks gestation) comprise a unique population requiring enhanced awareness and sensitivity to issues of delivery, transition, infection, nutrition, discharge readiness, and parent education that need to begin shortly after birth.

Late preterm births comprise approximately 8000 deliveries annually in North Carolina. There is enormous variation between providers and across hospitals in the care of LPI including feeding related issues, support for breastfeeding, treatment of hyperbilirubinemia and hypoglycemia, care of transient tachypnea of the newborn and respiratory distress, observation for and treatment of apnea, and safe sleep counseling.

Additionally LPIs incur significant costs in initial hospitalization dealing with the above clinical issues and as a result of readmissions. Studies report readmission rates for LPIs that were 1.8 times higher than term infants. Jaundice and infection were the main reasons for readmissions especially in breast fed LPIs. Others have reported readmission rates of 5.5%, 6.9% and 5.8% for 34, 35 and 36 week infants respectively.

Mission:

Via a statewide LPI collaboration, provide the facilitation, coaching, mentorship, education and support necessary to develop guidelines within in NC hospitals for the Care of the Late Preterm Infant (LPI).

Aim:

Create a multidisciplinary hospital based community focused on providing a standardized approach to the key clinical issues related to the care of the LPI.

100% of hospitals will clearly designate in the medical record that an infant 34-36 6/7 weeks is a **LATE PRETERM INFANT. (**For the purposes of the PQCNC Care of the Late Preterm Infant initiative, we will focus on infants 35 0/7 – 36 6/7 weeks gestation.)

100% of hospitals will develop a LPI pathway to discharge that will address critical issues of feeding and breastfeeding support, guidelines for hypoglycemia evaluation and treatment, hyperbilirubinemia evaluation and treatment, safe sleep education and outpatient follow up within 48 hours.

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Scope:

Working with perinatal quality improvement teams (PQIT) in participating centers the initiative will focus on the time between the admission of the infant to the Mother/Baby unit, Newborn Nursery or SCN/NICU and the discharge of the LPI.

Method:

Invite teams from NICU's and Nurseries to participate in the collaborative organized by PQCNC to include coaching on initial team formation, monthly coaching calls, monthly webinars, quarterly learning sessions, weekly email newsletters and visits to meet with hospitals and identify successes and challenges.

Measurement Strategy includes:

1. Gestational age of infant
2. Ethnicity of infant
3. Payer
4. Reason for late preterm delivery
5. Total infants delivered at participating hospital
6. LOS for each LPI, overall LOS for LPI at a given hospital
7. % of infants diagnosed with hypoglycemia, apnea, sepsis, hyperbilirubinemia
8. % of infants breastfeeding at discharge
9. % of infants with safe sleep education
10. % of infants with follow up within 48 hours

Bundles of Care to Be Considered:

a. Hypoglycemia Prevention and Care
   - Skin to skin
   - Early breastfeeding
   - Regular feeding
   - Use of glucose gel

b. Hyperbilirubinemia
   - Timing and test used (TC versus blood)
   - Recognizing high risk
   - Blood typing
   - Support for breastfeeding
   - Criteria for treatment
   - Stopping treatment and timing for rechecking
   - Discharge home with phototherapy

c. Nutrition
   - Lactation support for this high-risk group to support breastfeeding
   - Guidance if hyperbilirubinemia

d. Safe Sleep Education
   - Role of Safe Sleep Calculator
   - Assessing effectiveness of safe sleep counseling

e. Assuring follow up for babies labelled as LPI within 48 hours