Newborn Critical Care Center (NCCC) Clinical Guidelines

Joint Obstetric and Neonatology Antenatal Counseling for Anticipated Deliveries of Premature Infants 34 - 36 Weeks Gestation

A consult from neonatology for counseling may be requested for any patient regardless of gestational age; however, counseling in this gestational age bracket should come initially from an obstetrical physician. When time is limited, the NCCC will prioritize to consult with those at highest risk first.

Background

Preterm infants are at risk for numerous problems, including hypothermia, hypoglycemia, respiratory problems, apnea, feeding difficulties, and jaundice. They also have an increased susceptibility to infections. With each additional week of gestation in utero, these risks decrease.

As a result, these infants have twice the risk for readmission after birth, including re-hospitalization in the first month of life. They continue to be at higher risk for both mortality and morbidity during their first year of life compared to full-term newborns.

Statistics

- Infants 34-36 weeks gestational age comprise 7.7% of US live births
- Mortality based on gestational age
    - 34-36 weeks: 8.1/1000 live births
    - 37-41 weeks: 2.1/1000 live births
- 15% of infants born at 34-36 weeks will be hospitalized in the first year of life

Counseling

- ***Respiratory:*** Preterm infants are at greater risk for respiratory distress syndrome, transient tachypnea, and respiratory failure. Most infants 34-36 weeks gestational age will not need respiratory support, but some babies will require oxygen, CPAP, or a ventilator. This varies widely between patients, and parents should be prepared for all possible scenarios.
- ***Apnea:*** Preterm infants are at risk for apnea of prematurity due to an immature central nervous system until about 35 weeks of corrected age and will need to be on a monitor while in the Newborn Critical Care Center (NCCC).
    - Helpful definition to use as example for parents:
        - *Apnea of prematurity:* shallow breathing or pauses in infants' breathing for $\geq$20secs
- ***Thermoregulation:*** Babies will require a heated bed until about 34-35 weeks of corrected age and a weight > 1700 grams.
- ***Feeding:*** Breast milk is the BEST nutrition for a premature baby. We support breastfeeding mothers and will work to help moms begin pumping and providing milk. While waiting for the mother milk supply, we STRONGLY recommend donor breast milk.

While infants can start to coordinate the suck, swallow, and breath technique required for PO feeding at around 34 weeks gestation, many will be slow to learn the PO feeding technique.

- ***Infection:*** Premature babies have immature immune systems and are at risk for infection and necrotizing enterocolitis (an infection of the intestines). Breast milk can help reduce the risk of both.
- ***Long-term Outcomes:*** Preterm infants are at increased risk of developmental disability, school failure, behavior problems, and social and medical disabilities.

Discharge

- Although most infants in this gestational age bracket are quickly discharged from the NCCC, parents should be prepared for a hospitalization of up to 3 weeks.
- Prior to discharge, infant must be able to:
    - Breathe spontaneously without respiratory support or apnea
    - Stay warm without a heat source
    - Grow appropriately while taking all feedings PO (breast or bottle)
        - The majority of the time, feeding is the last goal to be mastered before discharge
    - The infant must be 4 lbs to fit safely in the smallest car seat

References:

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