Chapter 3: Common NICU Guidelines

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A. Admissions

- All babies born <35 wks GA or <2000 g must be admitted to NICU
- Admissions should be staffed with the neonatal provider (APP, hospitalist, fellow, neonatologist)

B. Wisconsin Newborn Screen

All Infants:

– Collect an initial specimen at 24-48 hr of life

– Collect another specimen at 48-72 hr of life on infants initially tested at <24 hr of age

– Always try to collect the initial specimen prior to a blood product transfusion

Infants with a birth weight <2,200 g

– Collect a repeat specimen at 14 days of age

– Collect another specimen at 30 days of life or discharge, whichever comes first, and monthly thereafter until 3 months of age or until discharge.

Infants with a birth weight ≥ 2,200 g and GAB ≥ 34 weeks

– Collect a repeat specimen at 30 days or just before discharge or at one month of age, if hospital stay is longer than one month

Transfused infants

– Collect initial specimen before transfusion, if possible

– If specimen is collected before transfusion and less than 24 hours of age, repeat testing at 48-72 hrs of life and another at 60 days of life (at least >14 days from previous transfusion)

– If initial specimen was collected post-transfusion, testing should be done at 60 days of life (at least >14 days from previous transfusion)

– Always list date of most recent transfusion on specimen collection card

At discharge:

– Always collect a specimen at discharge unless the previous specimen was collected within 7 days of discharge.

Before transfer

– Collect a specimen before transfer, if possible

– Inform receiving hospital of specimen collection status

C. Immunizations

All immunizations require parental permission

- Hepatitis B vaccine
  - <2 kg at birth – give at one month of age or prior to discharge, whichever comes first
  - ≥2 kg at birth – administer as soon as medically feasible after birth
- Other standard immunizations are given when baby is 2 months old and relatively stable. (Hib, Prevnar, Hep B, Polio, DTaP)
- During RSV season (November thru April) Palivizumab (Synagis®) prophylaxis should be given prior to discharge to:
  - All babies ≤ 28 6/7 weeks
  - Chronic lung disease of prematurity, < 1 yo, and birth < 32 weeks 0 days' gestation and required supplemental oxygen for at least 28 days after birth
  - Chronic lung disease of prematurity, between 1 yo and 2 yo who required at least 28 days of supplement oxygen after birth and who continues to require supplemental oxygen, chronic diuretic therapy, or chronic systemic steroid therapy
  - Infants <1yo with congenital heart disease with any of the following:
    - Congestive heart failure on medication
    - Moderate to severe pulmonary hypertension
    - Cyanotic heart disease in consultation with cardiologist
    - Infants undergoing cardiopulmonary bypass
    - Infants who receive cardiac transplantation
  - Infants with congenital abnormalities of the airway or neuromuscular disease that compromises handling of respiratory secretions.
  - Profoundly immunocompromised infants
  - Infants with Cystic Fibrosis < 24 months at beginning of RSV season
  - Infants with interstitial lung disease < 24 months at beginning of RSV season

D. Hearing Screen: Perform within 90 days. Must be prior to discharge. Should also be done after completing phototherapy.

- If Referrs on repeat testing & baby is < 7 days old
  - Send salivary CMV PCR
  - Request Meriter Family Liaision or Postpartum HUC to schedule repeat hearing screen in Meriter outpatient lactation clinic
- If refers on repeat testing & baby is > 7 days old
  - Ensure salivary CMV PCR sent
  - Enter referral either to:
    - Audiology for an appointment in 2 weeks (1-3 hrs, may require sedation)
    - UW Speech & Hearing Free Clinic with Amy Hartman; (608) 262-3951

E. Updating parents, Primary Care Provider (PCP) and Obstetrician

- Use NICU phone number 608-417-6215. Call through paging 608-262-2122, provide parents phone number to operator and ask operator to call
- For UW or Meriter PCPs, consider Healthlink or Meriter Epic inbox message
- Parents: Parents of NICU patients should be updated either in person or by phone.
  - On admission
  - Any major change in patient's status: Immediately.
  - Critical status: Daily.
  - During convalescence: Twice per week.
  - Prior to discharge: To assess that parents are fully prepared to take care of their infant
  - Phone etiquette: When calling a parent on phone, do not leave any medical information on voicemail or with a relative. Advise parents to call immediately if emergency or when available for routine update.
- PCP:
  - Once identified, notify PCP about NICU admission of the patient
  - Update at least every 2 weeks during NICU stay (unless PCP requests differently)
  - Call prior to discharge with summary of hospital course
  - Call in the event of patient's death

– Obstetrician: Notify the obstetrician if the infant dies and give brief summary. They will follow the mother post-partum and they should know about this event

F. Discharge Management

Discharging a high-risk infant requires significant preparation by the family and the NICU team. The goal is to prepare the family with education and training during infant's hospital stay such that they are ready to take care of their infant when infant is physiologically stable and ready for discharge.

1. Discharge Planning

- Hearing Screen
- Car seat challenge w/in 72 hrs of discharge for infants with any of the following criteria:
  - born <37 weeks gestation
  - birth weight <2500 g
  - discharging on home oxygen
  - hypotonia (T21, congenital neuromuscular disorder, etc.)
- Congenital heart disease screen
- Circumcision if requested
- CPR for parents
- Head circumference and length measured on the day of discharge
- When applicable, add "Home going Nutrition Plan" formulated by Sally Norlin and print hospital growth chart for PCP and the family

2. Evidence of Physiologic Stability and Medical Readiness for Discharge

- **Minimum Requirements in Each Category**

	GA <30 weeks	GA 30-35 weeks	GA >35 weeks >7 days of age*
Thermoregulation			
Number of days in open crib	2 days	2 days	1 day
Feedings			
Number of days on home nutrition with adequate weight gain and/or taking acceptable	3 days	2 days	2 days
What is adequate weight gain?	10 gm/kg/day OR Maintaining growth percentile	10 gm/kg/day OR Maintaining growth percentile	
Cardiorespiratory Stability			
Breathing room air without any device	3	3	2
Days off caffeine without significant cardiopulmonary events	7	7	5
Days free of non-feeding related cardiorespiratory events requiring stimulation	5 days	3-5 days	2-3 days

*Not applicable for infants >35 weeks and ≤7 days old

3. Follow-up Appointments

Patient must have all follow up appointments scheduled and recorded in the discharge summary.

- PCP: 1-3 days after discharge
- All subspecialty clinics (ask subspecialist about timing)
- Developmental follow-up:
  - Waisman Center Newborn Follow-up Clinic
    - All neonates <28 weeks and/or birth weight <1500 gm.
    - Any infant with significant developmental concerns and all infants with NGT feed.
    - Neurologic abnormalities, HIE, multiple congenital anomalies
    - Schedule as soon as possible (typically multi-week wait)
  - Meriter Developmental Assessment Clinic:
    - Infants 28-32 weeks or at risk for developmental delays
    - Evaluation is done by RN, speech therapist, and OT
    - Seen at corrected age of 6, 18 and 30 months
  - Great Results After Discharge "GRAD" Program
    - Provide nutritional recommendations to the PCP and family during the transition from hospital to home
    - Criteria for referral to the program include infants born <32 6/7 weeks or with a birth weight <1500 grams
    - 1st appointment within 2 weeks following discharge. (up to 3 appts)
    - Evaluation by nutritionist and lactation consultant

4. Discharge of Infant with Bridled Nasogastric Tube (NGT) Feedings

a. Bridle is inserted & attached to NGT to reduce risk of tube dislodgement, but does not eliminate
   i. If tube dislodgement occurs during business hours, replace in peds GI clinic

ii. If tube dislodged overnight, contact peds GI on-call but may have to go to UW ED

b. Infants may be candidates if PMA ≥ 40 weeks & ≥ 40% PO intake for at least 5-7 days
c. Order "bridle order bundle" & enter "NG tube fed newborn" on problem list
    i. Charge RN or NICU CNS place bridle bedside (AMT Microbridle Pro 5-6 clip fits 6.5F NG)
    ii. XR to confirm NGT position
d. Consultation with SLP & pediatric GI required
    i. Weekly weight checks with PCP or GRAD Clinic
    ii. out-patient follow-up w/ SLP 1-2 weeks after discharge
    iii. peds GI 4 weeks after discharge
e. Consult with Case Management for ENFit syringes & other home supplies
f. Enter **.bridledischarge** & home-going feeding plan from NICU nutritionist in discharge summary
g. Monitor for 48 hours after bridle placement
    i. PO intake may decline in 1st 24 hrs post-placement
    ii. Duoderm on columella & Aquaphor to nares can help reduce risk, but monitor for septal irritation
    iii. parents to perform independent care session