NON-PHARMACOLOGIC TREATMENT GUIDELINES

NON-PHARMACOLOGIC CARE
Infant at Risk for Opioid or Benzo Withdrawal - Cord Tissue Sent for Testing

Initiate Discussion with Family

Symptomatic

- Finnegan Scoring initiated @ 2 hours
- Pharmacologic Treatment, if necessary
- Observation per AAP guidelines for exposed infants

Asymptomatic

- Finnegan Scoring initiated @ 2 hours
- Cord Test Positive
- Cord test not back prior to discharge

Cord Test Negative

Follow Discharge Readiness Protocol

Follow Discharge Readiness Protocol

Follow Discharge Readiness Protocol

Process with Routine Care

Implementation of non-pharmacologic treatment interventions for NAS, such as rooming-in, breastfeeding, skin-to-skin care, swaddling, and decreasing environmental stimuli have been shown to decrease the length of hospitalization and the length of pharmacologic treatment. When there is
known or suspected intra-uterine exposure to opioids and/or benzodiazepines, a toxicology screen is necessary for the newborn. A newborn urine drug screen should be ordered in addition to the cord tissue screen. If tests have been ordered, newborns should be scored for neonatal withdrawal beginning at 2 hours of age, whether they exhibit symptoms of neonatal abstinence syndrome or not.

**Finnegan Scoring Tool**

The Finnegan tool is a reliable and valid tool which scores a series of behaviors that indicate how much the baby is withdrawing and/or the effectiveness of treatment. Finnegan scoring is implemented within 2 hours of birth if an umbilical cord was sent for toxicology due to a maternal positive or refusal of urine drug screen or can be implemented if it is suspected that the baby is going through withdrawal. The nurse will score a baby every 2-4 hour on 20 individual parameters.

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<th>Parameters</th>
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<tr>
<td>• Crying</td>
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<tr>
<td>• Sleeping</td>
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<tr>
<td>• Moro Reflex</td>
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<tr>
<td>• Tremors disturbed</td>
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<td>• Tremors undisturbed</td>
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<td>• Muscle Tone</td>
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<td>• Excoriation</td>
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<td>• Convulsions</td>
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<td>• Sweating</td>
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Finnegan scores less than 8 can be managed with non-pharmacologic measures (i.e. rocking, swaddling, non-nutritive sucking). Two or three consecutive scores totaling >24 would indicate the possible need for medical intervention and must be reported to the Primary Care Physician (PCP) or Licensed Independent Practitioner (LIP).

**Parent Conversations**

Ideally, conversations with parents should begin prenatally concerning the potential for their baby to experience NAS when there is a known drug (prescription or non-prescription) exposure. Once in the hospital, if drug exposure was not identified prenatally and/or is now identified by a maternal positive verbal screen, maternal positive urine drug screen, or maternal refusal of screening, conversations with parents should be implemented as soon as possible explaining the subsequent care and treatment of their baby. Conversations should include information about the potential adverse effects of the medication(s), the signs and symptoms of withdrawal and how the parents can help manage symptoms if they occur. Handouts for parents containing non-pharmacological interventions could be useful.
Once an infant has been identified as at-risk for substance exposure in utero, the infant’s cord tissue is sent for testing and Finnegan scoring is implemented within 2 hours of birth. There are two pathways that have been identified. One is for infants that are symptomatic prior to receipt of laboratory results. The other pathway is for infants at risk but are asymptomatic.

**Procedures for Symptomatic Infants**

When an infant first develops signs of NAS, as indicated by Finnegan scores, non-pharmacologic interventions should begin. The following interventions are cited in the literature:

1. Decreasing environmental stimuli
   a. Dim lighting
   b. Quiet environment (i.e. muted tv, lowered voices of staff and visitors)
   c. Minimal disruptions to sleep/sleep protection
2. Rooming-In with mother
3. Skin-to-skin care with mother and/or other caregivers (1 hour after feedings)
4. Active engagement of mother and/or other caregivers
5. Breastfeeding when appropriate (mother is compliant with MAT)
6. High calorie lactose-free formula and frequent feedings support comfort and growth when breastfeeding is not possible
7. Swaddling
8. Pacifier use/non-nutritive sucking
9. Massage therapy

**Individualized Plan of Care (RN, OT, PT, SLP)**

When resources are available, an individualized plan of care for the affected newborn should be developed and include physical therapy, occupational therapy, and speech language therapy. Developmental Care Team consists of Occupational and Physical Therapists with specialized training for the neonatal population. Rehab Consult orders are placed by providers and routed to the developmental care team.

**Goals of Developmental Care Team include:**

1. Decrease signs/symptoms of withdrawal
2. Support sleep cycles
3. Improve feeding and weight gain
4. Modulate sensory experience
5. Support age-appropriate development
6. Promote mother/infant bonding
7. Decrease length of stay

The frequency of developmental care team interventions varies depending on the age of the infant and on-going needs assessments by the team. General guidelines for developmental therapy are as follows:

1. 3-4x per week, age 0-14 days
2. 4-5x per week, 14 days+
3. OT/PT initiate evaluations/treatment intervention 30 minutes prior to feedings

Interventions of the developmental care team include:

1) Protect sleep
   a) Safeguarding sleep states, gentle awakening for care ONLY when necessary in order to
decrease sleep disturbances

2) Modulate environment
   a) Adjusting light, noise level, tactile and vestibular input in order to decrease sympathetic
responses to external stimuli and improve behavioral state organization and autonomic
function

3) Assist with infant self-regulation
   a) Containment strategies through swaddling to support physiological flexion, prevent
tremors and myoclonic jerking
   b) Vestibular stimulation through vertical rocking during infant disorganization to decrease
neurological hyperactivity and facilitate relaxation
   c) Use of developmental positioners to provide boundaries in order to reduce energy
   expenditure and promote weight gain
   d) Auditory input through soothing sounds to induce quiet alert state

4) Promote pre-feeding skills
   a) Allow the infant hand-to-mouth opportunities to assist in self-regulatory behavior

5) Massage/therapeutic touch
   a) Minimization of negative touch experiences and enhancement of positive touch experience
through infant massage
   b) Gentle, firm pressure to avoid triggering hyperactive Moro reflex
   c) Promote skin-to-skin contact with mother to nurture strong maternal-infant interaction and
decrease neurologic disorganization

6) Range of Motion
   a) Passive Range Of Motion (PROM) to reduce hypertonicity and support motor and tone
development
   b) Support normal rhythmicities to reduce abnormal rhythmic behaviors

7) Caregiver education
   a) Facilitate supportive parenting behaviors
   b) Promote parent-child interaction to reduce parental stress
   c) Safe sleep education
   d) Promote participation in early intervention programs post discharge

If non-pharmacologic interventions are not successful in alleviating the signs and symptoms of NAS,
pharmacologic treatment is warranted.

Procedures for Asymptomatic Infants
If the infant has been determined at risk for substance exposure but is asymptomatic:

- Finnegan scoring should begin within two hours.
A discussion with the family regarding the care of the exposed or potentially exposed infant should begin within the first couple hours of the infant’s birth.

Non-pharmacologic interventions should begin for the at-risk/asymptomatic infant shortly after birth, with active engagement of the family.

If the cord tissue test is negative, routine newborn care can be resumed. However, the discharge readiness protocol\(^1\) should be followed.

If the cord tissue test is positive, but the infant remains asymptomatic, the infant with known antenatal exposure to opioids and benzodiazepines should be observed in the hospital per the recommendations of the American Academy of Pediatrics Committee on Drugs and The Committee on Fetus and Newborn Clinical Report on Neonatal Drug Withdrawal.

If the cord tissue results are unknown and the infant is ready for discharge, the discharge readiness protocol should be followed.

If the infant becomes symptomatic at any time and non-pharmacologic interventions are not successful in alleviating the signs and symptoms of NAS, pharmacologic treatment is warranted.

Note: The Eat, Sleep, Console intervention is a type of non-pharmacologic care. More information can be found at: https://www.psychcongress.com/news/common-sense-approach-works-evaluating-treating-neonatal-abstinence

\(^1\) https://www.in.gov/laboroflove/files/Infant%20Discharge%20Readiness%20Checklist.pdf
Infant Name: ______________________________________  DOB: _____________

The purpose of this form is to standardize care and expectations for all substance exposed newborns. These newborns are at increased risk for poor weight gain, failure to thrive and problems with their development, vision and behavior throughout childhood. Families affected by substance use are also at risk for numerous social complications, including maternal depression, housing instability, domestic violence exposure, and hunger. These newborns are at increased risk for missed pediatric care opportunities. Please ensure that each newborn has a follow-up pediatric provider identified and first newborn appointment scheduled.

☐ Cord drug screen results received

☐ ICD 10 Code: _____________

☐ Cord drug screen pending with follow-up plan

Person responsible for following up pending cord drug test and communicating results with DCS and pediatric provider:

Name: ______________________________________  Contact: ________________

☐ DCS notified if positive drug screen for illicit substance

☐ Safe home environment/discharge disposition assured by DCS (if necessary)

☐ Home visitation follow-up arranged

Agency name: ________________________________

☐ If eligible for Medicaid, an order for home health nursing visit (30 allowed without prior authorization) has been written prior to discharge and included in the discharge documentation

☐ Referral made to Managed Care Entity (MCE) case management

☐ First Steps referral completed if concern for abnormal tone or immediate developmental needs are present (e.g. feeding or attachment issues). Please note that First Steps is not necessary for all perinatally substance exposed newborns.
□ Primary care provider identified

   **Primary Care Provider:** ________________________________
   **Phone Number:** ________________________________

□ First newborn appointment scheduled within 2-3 days of discharge

   **Date/time of first newborn appointment:** ________________________________

□ Perinatally substance exposed letter sent to primary care provider and scanned into medical record

   **Primary Care Provider fax number:** ________________________________

□ Releases have been signed allowing communication between care providers and DCS representatives. Releases have been faxed to all included providers and representatives.

□ If the newborn has been diagnosed with NAS or with significant medical concerns, the primary care provider has been called for a warm hand-off

□ Feeding plan has been developed (with family demonstrating ability to feed baby adequately)

□ Family has been trained on:
   - Baby’s care plan
   - Baby’s feeding plan
   - Soothing baby safely
   - Safe sleep practices
   - Ongoing symptoms of withdrawal and when to call medical provider (if necessary)

□ Caregiver education materials (insert weblink) provided including a letter explaining the DCS process that will be followed