



# Perinatal Substance Use Practice Bundle

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A TOOLKIT FOR INDIANA HOSPITALS

Indiana Perinatal Quality Improvement Collaborative (IPQIC)  
Perinatal Substance Use Task Force  
Adopted by the IPQIC Governing Council October 2018

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*“The use of opioids during pregnancy has grown rapidly in the past decade. As opioid use during pregnancy increased, so did complications from their use, including neonatal abstinence syndrome. Several state governments responded to this increase by prosecuting and incarcerating pregnant women with substance use disorders; however, this approach has no proven benefits for maternal or infant health and may lead to avoidance of prenatal care and a decreased willingness to engage in substance use disorder treatment programs. A public health response, rather than a punitive approach to the opioid epidemic and substance use during pregnancy, is critical, including the following: a focus on preventing unintended pregnancies and improving access to contraception; universal screening for alcohol and other drug use in women of childbearing age; knowledge and informed consent of maternal drug testing and reporting practices; improved access to comprehensive obstetric care, including opioid replacement therapy; gender-specific substance use treatment programs; and improved funding for social services and child welfare systems.”<sup>1</sup>*

## INDIANA INITIAL EFFORTS

The efforts to address perinatal substance use began in earnest in 2014 with the passage of Senate Bill 408 which required the Indiana State Department of Health (ISDH) to establish a task force to address five issues:

1. The appropriate standard clinical definition of “Neonatal Abstinence Syndrome (NAS) ”;
2. The development of a uniform process of identifying NAS;
3. The estimated time and resources needed to educate hospital personnel in implementing an appropriate and uniform process for identification;
4. The identification and review of appropriate screening data available for reporting to ISDH; and
5. The identification of payment methodologies for identifying and reporting NAS were currently available or needed.

The NAS task force was composed of representatives from all relevant medical professional organizations, community mental health centers, treatment centers, consumers and advocates. Over 60 individuals participated in completing the deliverables set out by the General Assembly. The final report was submitted to the General Assembly in October of 2014 and can be found at: [https://www.in.gov/laboroflove/files/Neonatal Abstinence Syndrome Report Final Report.pdf](https://www.in.gov/laboroflove/files/Neonatal%20Abstinence%20Syndrome%20Report%20Final%20Report.pdf)

In 2016, four Indiana hospitals agreed to pilot the process and educational materials developed by the task force. After one year of the pilot, lessons learned were identified and minor revisions were made to the processes and materials. In 2017, seventeen more hospitals joined the process with an additional eight hospitals joining in 2018.

In 2017, the NAS Task Force was renamed the Perinatal Substance Use Task Force. The name change was based on the recommendation of ISDH that the development of infants exposed to substances prenatally needed to be addressed as well as those infants with an NAS diagnosis. Members of the task force also decided to limit the addition of any more hospitals until all

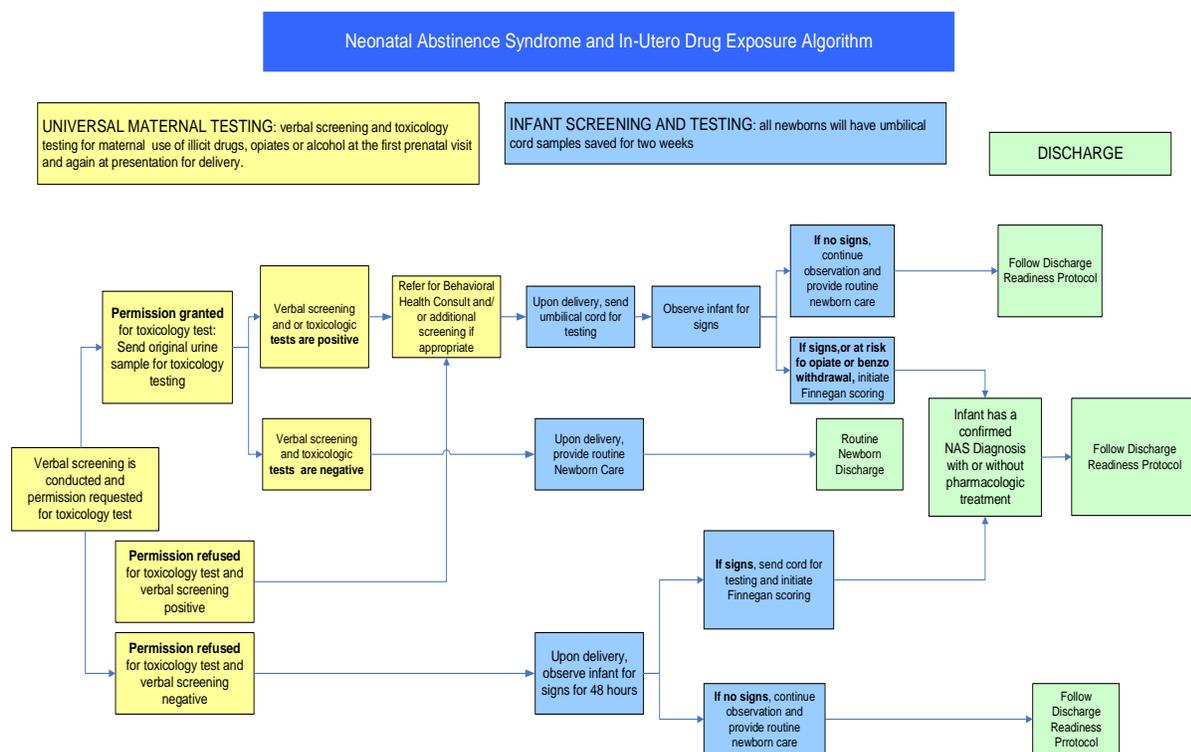
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<sup>1</sup> Patrick SW, Schumacher RE, Horbar JD, et. Al. Improving Care for Neonatal Abstinence Syndrome. Pediatrics. 2016;137(5):e20153835

processes and materials were standardized to support a uniform approach to identification and intervention.

This document is designed to identify a uniform process of identification and intervention from screening at the first prenatal visit to discharge planning and follow-up for both the mother and the baby. In this document information will be found on recommended screening tools, treatment protocols, educational materials in both English and Spanish as well as discharge checklists. The goal is to provide the tools necessary to address the needs of pregnant women who are using licit or illicit substances as well as their newborns who are exposed to the substances. All materials have been developed as templates so that each hospital can customize the materials with its own branding/look.

Numerous studies have emphasized the importance of standardizing care in order to improve outcomes for newborns who are at risk from prenatal substance exposure. “Improvements in the identification of infants at risk and standardized treatment of infants with NAS could greatly mitigate the effects of NAS and the associated health care burden.”<sup>2</sup>



<sup>2</sup> CDC Grand Rounds: Public Health Strategies to Prevent Neonatal Abstinence Syndrome MMWR / March 10, 2017 / Vol. 66 / No. 9

This algorithm represents three distinct phases of identification and treatment. The first phase is focused on screening all pregnant women at the time of their first prenatal visit. A verbal screen<sup>3</sup> has been recommended along with a urine screen. This early screening process can support the development of a care plan that will optimize outcomes for both mother and baby. An additional screen for Hepatitis C is recommended at the first visit and again in the third trimester.

At the presentation at the delivering hospital for the birth of the baby, the pregnant woman should receive a verbal and urine screening again. If either screen is positive, the baby's cord tissue should be sent for toxicologic screening. Indiana is using a custom-panel screen that tests for the following substances:

- Amphetamine;
- Cocaine;
- Opiates;
- Cannabinoids;
- Barbiturates;
- Methadone;
- Benzodiazepine;
- Oxycodone;
- Buprenorphine; and
- Fentanyl.

In addition, Indiana has adopted an alcohol blood spot test as part of the recommended bundle.

If the pregnant woman opts out of the screening process, the infant is considered at risk for substance exposure and will be observed for any signs of substance exposure for a minimum of 48 hours. Many hospitals are also sending the baby's cord tissue for testing to mitigate the risk.



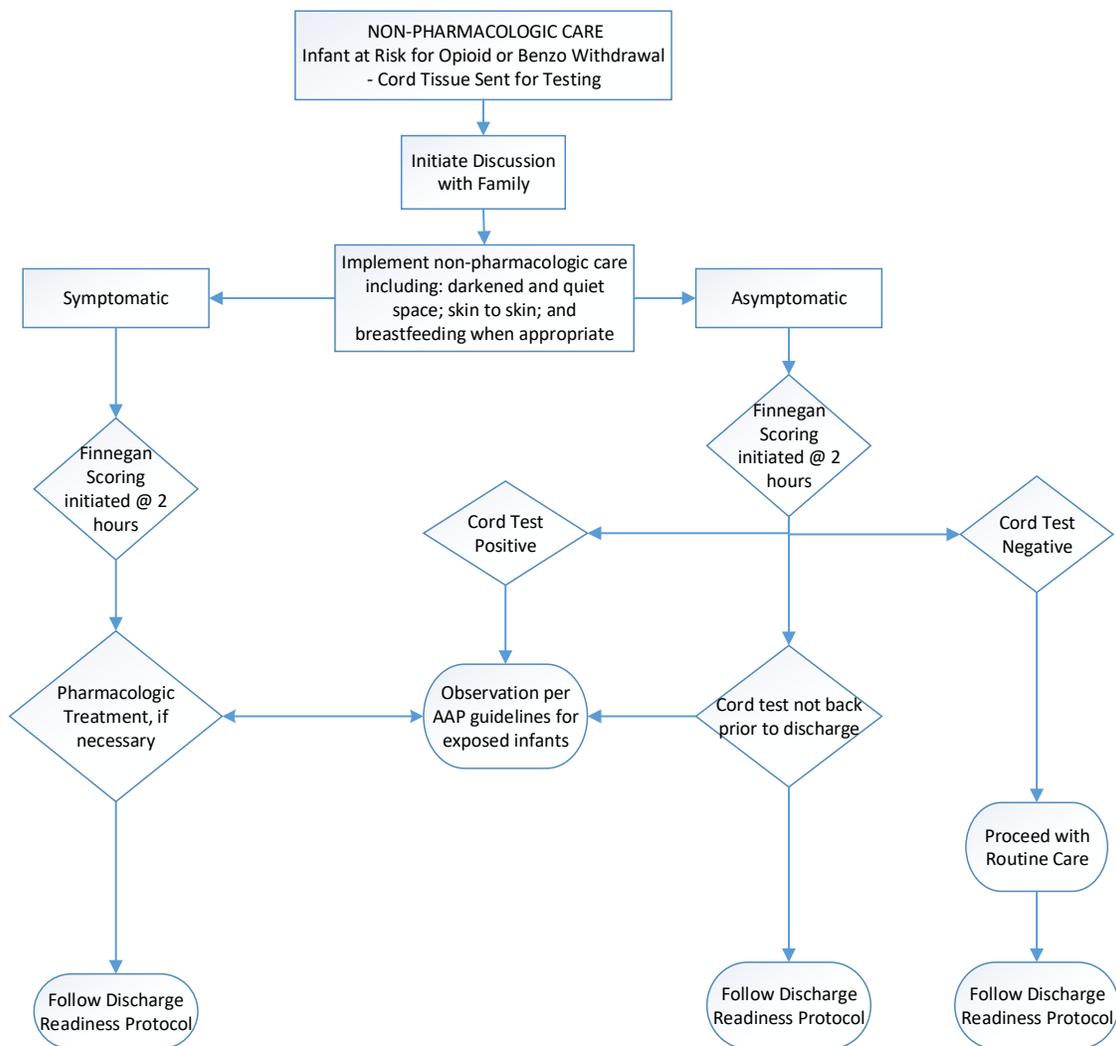
### **NAS DIAGNOSIS CRITERIA:**

- *Symptomatic (tremor/jitteriness, difficult to console, poor feeding, or abnormal sleep); and*
- *Have one of the following:*
  - *A positive toxicology test, or*
  - *A maternal history with a positive verbal screen or toxicology test.*

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<sup>3</sup> <https://www.in.gov/laboroflove/files/5%20Ps%20Screening%20Tool.pdf>

## NON-PHARMACOLOGIC TREATMENT GUIDELINES



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.

Parameters	
• Crying	• Yawning
• Sleeping	• Mottling
• Moro Reflex	• Nasal Stuffiness
• Tremors disturbed	• Sneezing
• Tremors undisturbed	• Nasal Flaring
• Muscle Tone	• Respiratory Rate
• Excoriation	• Sucking
• Convulsions	• Feeding
• Sweating	• Regurgitation
• Fever	• Stools

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  $\geq 24$  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 as stated on pages 7-8.
- 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<sup>4</sup> 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>

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<sup>4</sup> <https://www.in.gov/laboroflove/files/Infant%20Discharge%20Readiness%20Checklist.pdf>

## PHARMACOLOGIC CARE

This treatment protocol is meant to serve as a guideline for Indiana facilities to use in developing their own pharmacologic treatment protocols and is not intended to mandate methods of care for infants diagnosed with Neonatal Abstinence Syndrome (NAS) and in need of pharmacologic treatment. *An accompanying NAS Pharmacologic Therapy Protocol Flowsheet<sup>5</sup> has been developed.*

The protocol reflects current SAMHSA recommendations. There is no ‘best’ treatment protocol identified as yet for infants with NAS. The protocol outlined here has considerable clinical experience behind it and has been reviewed by a number of neonatologists, pediatricians, and a clinical pharmacologist. Its implementation, as with all clinical protocols, requires clinical judgment and experience to use successfully. It is based on conventional use of morphine (prn or scheduled dosing) along with Finnegan scoring. An option for use of methadone is also given for institutions that prefer it, and reasons to choose one over the other are discussed.

This pharmacologic therapy protocol is designed to be used as part of a full institutional protocol that includes:

- Identification, monitoring, and testing of infants at risk for NAS prenatally, at admission for birth, and in the newborn nursery;
- a full non-pharmacologic treatment protocol<sup>6</sup>; and,
- a complete discharge planning protocol for mother<sup>7</sup> and baby<sup>8</sup> including maternal behavioral support services.

Research into NAS treatment methods is currently an active area of inquiry. It is likely that new treatment methods (use of buprenorphine in infants as front-line treatment, the Eat-Sleep-Console scoring system instead of the Finnegan, and so on) will change our methods of treatment over the next three to five years. While these protocols are still being studied, practitioners should carefully consider any early clinical implementation of these methods before they are fully vetted in peer-reviewed literature.

### Clinical use of the NAS Pharmacologic Therapy Protocol

What follows is a summary of the pharmacologic treatment protocol. The full protocol can be found at <https://www.in.gov/laboroflove/files/NAS%20Pharmacologic%20Therapy%20Protocol.pdf>

1. Identify an infant at risk for NAS using a formal NAS risk management algorithm.

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<sup>5</sup> <https://www.in.gov/laboroflove/files/Pharmacologic%20Treatment%20Algorithm.pdf>

<sup>6</sup> <https://www.in.gov/laboroflove/files/Non%20Pharmacologic%20Treatment%20Algorithm.pdf>

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<https://www.in.gov/laboroflove/files/Postpartum%20Discharge%20Planning%20and%20Referral%20Checklist.pdf>

<sup>8</sup> <https://www.in.gov/laboroflove/files/Infant%20Discharge%20Readiness%20Checklist.pdf>

2. Non-pharmacologic therapy and Finnegan scoring should be begun on all infants at risk for substance exposure. Non-pharmacologic therapy measures should be in place and implemented as a nursing protocol at the treating facility.
3. Identify infants with NAS. An infant is diagnosed with NAS if they have:
  - a. Signs, AND
  - b. A positive infant toxicology test OR a maternal history with either a positive verbal screen or a positive maternal toxicology test for opiates.
4. Based on clinical exam, Finnegan scoring, and clinical course, an infant is assigned to one of four categories:
  - a. Category 1. No withdrawal. Infants who are at-risk for NAS but do not develop withdrawal signs. These infants should not be coded as NAS but as exposed infants.
  - b. Category 2. Mild withdrawal. These are at-risk infants who have signs. This group of infants will meet the formal definition of NAS above (and use ICD-10 code P96.1) but have responded to non-pharmacologic care. These infants should be monitored for progression to more severe signs that may require pharmacologic treatment.
  - c. Category 3: Moderate withdrawal. Infants who meet pharmacologic therapeutic criteria for NAS. These infants can have extended lengths of stay and may require transfer to a higher level of care.
  - d. Category 4: Severe or complex withdrawal. These are infants with NAS who have had seizure activity or failed to respond to simple single-drug pharmacologic therapy. These infants require high-dose single drug or multi-drug pharmacologic therapy and transfer to a level 3 or 4 NICU is strongly recommended.
5. Follow management recommendations for the infant's category of withdrawal.
6. Regardless of category, all at-risk infants and their mothers require specialized discharge planning. Follow discharge recommendations once treatment is completed.<sup>9</sup>

## Executive Summary: Initial Pharmacologic Treatment Recommendations:

### Opiate withdrawal or polydrug withdrawal including opiates:

- Recommended initial prn treatment:
  - Morphine 0.05 - 0.1 mg/kg/dose q3h PRN 2 consecutive NAS scores  $\geq$  8 or any score  $\geq$  12.
- Recommended initial scheduled treatment for more severe withdrawal:
  - Morphine 0.05 - 0.1 mg/kg/dose q3h or q4h; or
  - Methadone 0.1 mg/kg/dose q6h (in general, use q6h methadone dosing for only 24 hours. The schedule is based on methadone pharmacokinetics and is designed to reach therapeutic levels rapidly.)
- Increase medication dose until withdrawal is controlled.
- Wean medication dose until infant can be safely discharged.

<sup>9</sup> <https://www.in.gov/laboroflove/files/Infant%20Discharge%20Readiness%20Checklist.pdf>

### Non-opioid withdrawal:

- Recommended initial treatment:
  - Clonidine 1 mcg/kg/dose q6h (in the second week of life, begin at 1.5 mcg/kg/dose q6h and may consider q4h dosing if signs are severe); OR
  - Phenobarbital 2.5 mg/kg/dose q12h (a loading dose is not necessary)
- Increase medication dose until withdrawal is controlled.
- Wean medication dose until infant can be safely discharged.

### Withdrawal with seizures:

Seizures will be difficult to control unless the withdrawal is adequately treated. Scheduled treatment with morphine or methadone should be started immediately in conjunction with treatment of seizures. (See treatment recommendations above.) Evaluation of the infant for other possible causes of seizure activity is strongly recommended as well.

- Recommended initial treatment of seizures:
  - Phenobarbital 10 to 20 mg/kg IV as the initial loading dose with a maintenance dose of 2.5 mg/kg/dose q12h. Additional seizures may be treated with 5 to 10 mg/kg IV boluses until controlled.

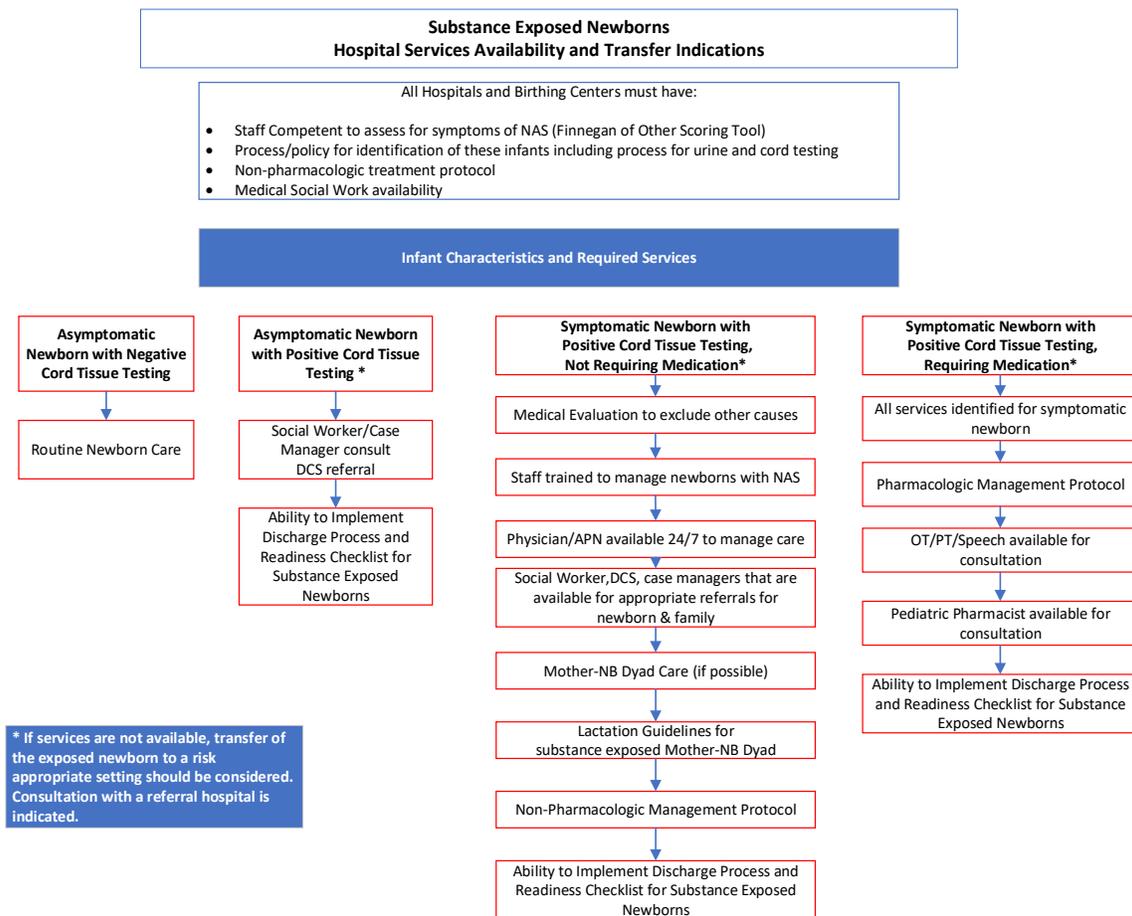
### Comments on the use of the NAS Pharmacologic Therapy Protocol:

1. The following therapy recommendations are primarily designed for management of opiate withdrawal and polydrug withdrawal including opiates in infants with NAS due to in utero prescription or illicit medication exposure. ***Implementation of these recommendations, as with any generalized treatment protocol, should be tempered by clinical judgment and may require adjustment for use in individual patients.***
2. Withdrawal in infants of mothers taking medications other than opiates (benzodiazepines, SSRIs, tobacco, caffeine, etc.) is typically neither severe nor prolonged. It can usually be managed with non-pharmacologic therapy. Finnegan scoring is often used to standardize management for these infants, though it has not been validated in non-opiate withdrawal. Therefore, clinical judgment should be used when basing management decisions in these infants on Finnegan scoring.
3. Venlafaxine (Effexor) is an SNRI that is an exception to the general rule that withdrawal from these medications is mild and self-limited. There are reports of respiratory distress, apnea, and other more severe signs with venlafaxine in addition to the more typical and milder signs normally expected with maternal antidepressant/anti-anxiety medications. Some authorities feel that other SNRI-class medications may also produce more severe neonatal withdrawal signs (similar to venlafaxine) than the SSRI-class medications and these infants should also be observed carefully.
4. Recommendations are given for pharmacologic management of severe non-opiate withdrawal should it be clinically necessary. Clinicians should be aware that these recommendations are based on limited clinical data compared to management of opiate withdrawal and polydrug withdrawal including opiates. Also, note that it is uncommon to need pharmacologic treatment

for non-opiate NAS and rare to have difficulty in controlling signs with clonidine or phenobarbital. Consideration should be given in such cases to the possibility of unreported maternal opiate use, and an empiric trial of an opiate may be of benefit for severe signs.

5. Iatrogenic NAS in infants who have received extended or high-dose medications for sedation or pain control during neonatal hospitalization that are known to cause withdrawal signs is managed differently than NAS related to maternal medication use or drug abuse during pregnancy. Management of infants with iatrogenic NAS is complex and institutions should develop their own protocols for use.
6. NAS scoring in infants on pharmacologic therapy should be continued for 48 to 72 hours after all medications are discontinued. Thus, observation of infants is recommended for 48 to 72 hours after discontinuation of pharmacotherapy.
7. Naloxone can precipitate a dangerous acute withdrawal crisis in at-risk infants. The routine use of naloxone in the delivery room is no longer recommended by the AAP as part of neonatal resuscitation (NRP.) Use of naloxone for treatment of respiratory depression due to maternal pain medications at delivery in infants at risk for NAS or due to pharmacologic treatment of NAS is generally felt to be contraindicated, but little clinical data is available regarding the risk: benefit ratio. Use of naloxone in such situations clearly can be hazardous and clinicians should proceed with extreme care.
8. Most infants who are going to present with NAS will do so within the first five days. However, there are some infants whose mothers are managed with methadone (and possibly with buprenorphine) that may present as late as fourteen days of age. Providers should be aware that young infants presenting to medical attention with signs that could be explained by NAS should have that diagnosis considered. Umbilical cords can be stored at the delivery hospital for fourteen days and the cords of infants who develop signs can easily be sent for testing by contacting the delivery hospital.
9. Gabapentin (Neurontin) is a medication that is finding increasing off-label use as a co-prescribed adjunct therapy in mothers treated with methadone or buprenorphine. In addition, there are reports of illicitly obtained gabapentin used in conjunction with illicit opiates; it may potentiate the 'high' from the opiate. Infants exposed to both gabapentin and opiates have been reported to have a prolonged withdrawal course with an atypical response to routine opiate treatment. There are some reports of use of gabapentin in the infants to decrease signs but information on dosing and treatment protocols in the literature is highly limited and clinicians should proceed with extreme caution.

# TRANSFER PROTOCOL



Neonates with established Neonatal Abstinence Syndrome (NAS) benefit from a holistic management strategy, or guideline, to acutely treat neonatal abstinence; improve outcomes for the newborn, her mother and her family; serve as a basis for quality improvement initiatives; and begin or continue to address the complex psychosocial and medical needs often encountered in such families and their communities.

Acute treatment of NAS involves diagnosis, exclusion of disorders that mimic signs and symptoms of NAS, monitoring severity of abstinence using an informative scoring tool by trained nursing staff, and treatment with consistently applied non-pharmacologic and subsequently, if needed, pharmacologic interventions to provide comfort during the acute abstinence phase.

The social determinants of health; maternal, paternal and family psychosocial and mental health disabilities; newborn and family neurodevelopmental, behavioral and psychiatric follow-up; and legal or child protection services consultations are important aspects of care that are to be ensured prior to and/or following the acute treatment of NAS. Furthermore, a holistic plan that includes

ongoing care for the newborn, mother, father and family is to be established and scheduled prior to determining the newborn's discharge disposition.

NAS management requires a foundational infrastructure to ensure the availability of the personnel, services, protocols, guidelines, education and physical plant necessary to care for newborns with NAS, mothers and other caregivers. A team of expert professionals knowledgeable and skilled in the complex care needs to best support the newborn and his family is essential. Inter-professional, multidisciplinary communication is a key ingredient in the recipe of care. Specific personnel vital to this care team include:

- Mother, Father, Significant Other and Family: Couplet care with mother, father, significant other, or family support members in a single room is preferred with the mother providing normal newborn care, comfort and non-pharmacologic interventions. The composition of the newborn's care team will vary with the composition of the child's family.
- Alternative care models are needed when consistent mother, father, significant other or family involvement is precluded. The default is nursing, social service and, if available, volunteers who provide for all care needs of the newborn.
- Medical caregivers (physicians/advanced practice nurses or physician assistants) with expertise in diagnosis of NAS, differentiating other causes of nonspecific symptoms, medical treatment guideline use (including non-pharmacologic and pharmacologic guidelines developed by experts in state and national organizations) and directing the care of newborns with NAS and their mothers are essential. Physicians may include pediatricians, family practice physicians, obstetricians, and medicine-pediatric doctors; the important skill set for all medical caregivers is having expertise in the care of newborns with NAS or their mothers or both. Such caregivers should be available at all hours and days of the week.
- The medical caregivers in collaboration with nursing staff, medical social workers and other team members are responsible for determining if the personnel and infrastructure for caring for newborns with NAS and their mothers is available in the local hospital. If the necessary personnel, infrastructure (eg. physical space, protocols, medical caregiver and staff education) and guidelines for care are not available locally, transfer to a higher level of care is indicated.
- Nursing staff: Nursing staff educated and skilled in monitoring severity of NAS using scoring tools (e.g. Finnegan; Eat, Sleep, Console tools) are necessary team members who must be available at all hours and days. Nursing staff also provide newborn care when mother or other surrogate caregivers are not available in addition to vital sign monitoring, identification of new problems, dispensing medications and educating mothers/other caregivers about NAS, the special needs of newborns with NAS and maternal self-care.
- Medical Social Worker(s): Medical Social Workers are also essential for managing the psychosocial needs of newborns with NAS and families. Social Workers help determine the medical, social and financial resources needed to care for the newborn and family including those services that address the social determinants of the health of the newborn, mother, father, significant other and family. Social Workers are responsible for collaborating with Child Protection Service staff and Case Management staff to develop a discharge disposition plan and

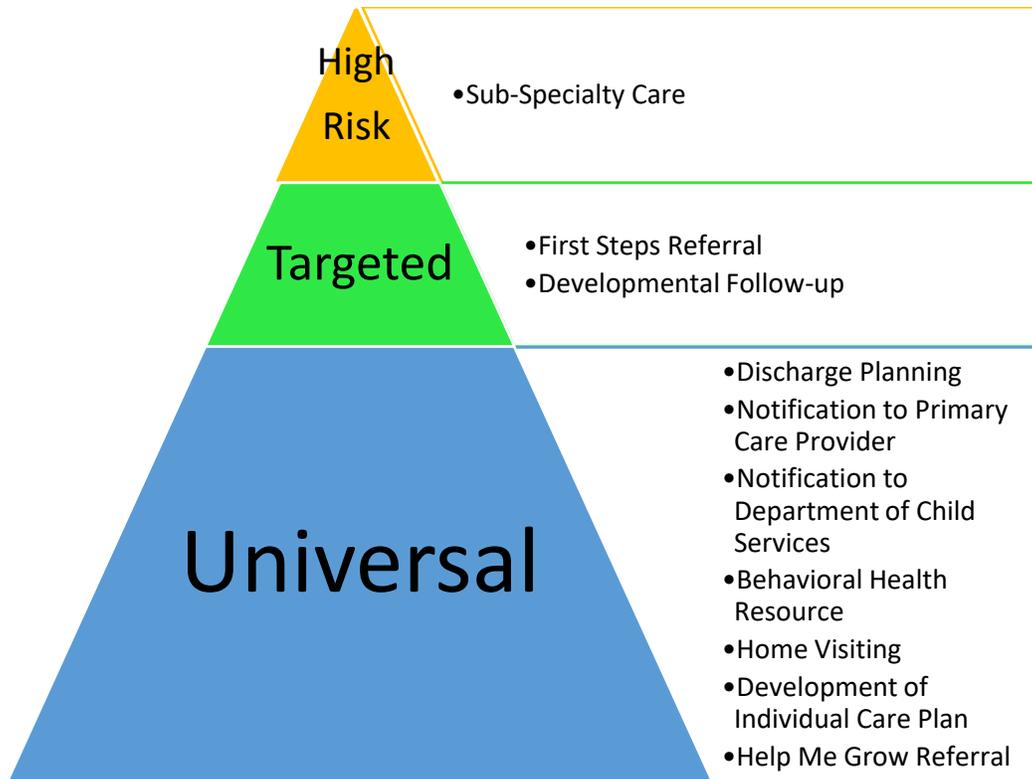
ongoing addiction and psychosocial treatment services needed by mothers and other caregivers.

- Case Management staff: Case managers are vital team members to collaborate with Social Workers and Health Insurers on disposition planning for the newborn with NAS and his caregivers.
- Child Protective Service staff: Child Protection staff are important resources for establishing the safety of the home and determining the discharge disposition.
- Pharmacist, preferably pediatric, but non-pediatric pharmacist knowledgeable about pharmacotherapy of NAS is acceptable. Pediatric pharmacist support is important when pharmacologic intervention is indicated. Such support can be provided by local hospital staff or by arrangement with non-hospital consulting pharmacy staff. It is expected that the pharmacist is expert in medications and dosing for newborns with NAS. Ideally, the pharmacist is integrated in the local team that develops or adapts guidelines from other expert sources for medicinal treatment of NAS.
- Lactation consultant(s): Feeding problems are frequently encountered in newborns with NAS. Lactation consultants with expertise in newborn feeding support are important adjunct team members for mothers of newborns with NAS who elect to breastfeed.
- Occupational, Physical Therapy and Speech Specialists: Occupational, Physical Therapy and Speech specialists in care of newborns with NAS are also important adjunct NAS treatment team members. Such team members assess and determine interventions for newborns with NAS who have abnormal neurologic, developmental and oral feeding dysfunction.

## Indications for Transfer to a Higher Level of Care

1. Uncertainty about the diagnosis of NAS and its differential diagnoses
2. Inability to appropriately monitor severity of NAS symptoms for 5 or more days
3. Lack of or inconsistent availability of personnel skilled in the diagnosis, monitoring and management of NAS (newborn, mother and other caregivers)
4. Insufficient infrastructure (services, protocols, guidelines, education and physical plant) to provide and maintain competence in the holistic management of NAS (newborn, mother and other caregivers)
  - a. All local sites are not expected to provide all services needed by newborns with NAS, their mothers and their families after discharge from the hospital. Such services including psychiatric treatment and job placement assistance, for example, are expected to be ongoing and referral-based, not necessarily hospital-sponsored.
5. Parent request

## DISCHARGE PLANNING AND ONGOING SERVICES AND SUPPORTS FOR INFANTS



Children affected by prenatal substance use are at risk for many comorbidities throughout childhood including feeding difficulties, failure to thrive, hypertonicity, developmental delay, strabismus, and behavior concerns. These children require initial feeding and growth monitoring followed by thorough developmental, vision, and behavior screening throughout childhood, as well as, frequent and thorough assessments of social determinants of health. This guidance document provides an overview of steps that should be taken when preparing for the discharge of each infant who has tested positive for substance exposure.

The following information includes suggested components for discharge planning on three levels:

- **Universal:** the discharge plan for all infants who have been prenatally exposed should include the identified supports;

- **Targeted:** the discharge plan for infants diagnosed with NAS with no other presenting concerns includes everything in the universal component and adds additional recommendations for services for infants and must be followed by the Perinatal Center Developmental Follow-up program.
- **High Risk:** These are infants with an NAS diagnosis who will need sub-specialty care. The discharge plan for these infants includes all resources in universal and targeted discharge recommendations.

## Universal Supports

Appropriate discharge planning must occur prior to the release of the infant and parent to ensure that all needed resources and supports are in place when leaving the hospital. A *Discharge Readiness Checklist*<sup>10</sup> has been developed to standardize care and expectations for all substance exposed newborns. Issues include:

- **Status of Cord Screening:** Have the confirmatory results been received? What were the findings? If the results have not been received prior to discharge, how and to whom will the results be conveyed?
- **Department of Child Services Notification:** Notification of the local office of the Department of Child Services if indicated for a positive drug screen for illicit substances or for other concerns.
- **Home Health Nursing Follow-up:** Ideally, all substance exposed children should have an individualized care plan developed at their medical home with a home visiting community health worker. A home health nurse can provide information and support in the home after discharge. For Medicaid enrolled infants, home health nursing visits (up to 30 days) can be ordered prior to discharge with no prior authorization required. Has a home health agency been contacted?
- **Help Me Grow:** In counties where available, the Help Me Grow program provides a centralized resource to identify community services and supports needed by infants and their families and provides developmental screening and information.
- **Primary Medical Provider information:** A *Pediatric Provider Letter*<sup>11</sup> has been developed to provide basic information for the individual/clinic that will be providing ongoing care to the infant.
- **Feeding and Safety:** Determining what the infant's feeding plan is and identifying resources to support the family's decision. Families affected by substance use are also at risk for numerous social complications, including maternal depression, housing instability, domestic violence exposure, and hunger. Some families will require the support of the Department of Child Services to ensure a safe home environment. In

<sup>10</sup> <https://www.in.gov/laboroflove/files/Infant%20Discharge%20Readiness%20Checklist.pdf>

<sup>11</sup> <https://www.in.gov/laboroflove/files/Infant%20Primary%20Care%20Provider%20Letter.pdf>

addition, caregivers should be informed of and have access to behavioral health services.

- Caregiver Handouts: Educational materials in Spanish and English have been developed to provide family-friendly information for caregivers of infants exposed prenatally to substance use.
  - English: <https://www.in.gov/laboroflove/files/Newborn%20Withdrawal%20-%20Going%20Home.pdf> and
  - Spanish: <https://www.in.gov/laboroflove/files/Newborn%20Withdrawal%20-%20Going%20Home%20Spanish.pdf>

Two additional documents focus on infants exposed to alcohol.

- English: <https://www.in.gov/laboroflove/files/Alcohol%20Exposure%20-%20Going%20Home.pdf> and
  - Spanish: <https://www.in.gov/laboroflove/files/Alcohol%20Exposure-Going%20Home%20Spanish.pdf>
- Department of Child Services has developed a letter for families that explains the process that will be used when the infant has been referred to DCS<sup>12</sup>. DCS has also developed a letter that should be provided to the ongoing primary care provider informing them of the steps DCS will use to investigate the case.<sup>13</sup>

## Targeted Supports

Infants with an NAS diagnosis may need additional support beyond those provided to infants exposed to prenatal substance use. If children are not meeting their developmental milestones or have other developmental concerns, a First Steps referral (<https://www.in.gov/fssa/ddrs/4819.htm>) should be initiated with a referral to a developmental pediatrician if needed. Infants with an NAS diagnosis must be followed by the Perinatal Center Developmental Follow-up program.

## High Risk Supports

Infants with an NAS diagnosis may need additional sub-specialty care. Special circumstances such as hearing loss, visual concerns or perinatal transmission of Hepatitis C may require access to additional specialized services. Each child and family are different; therefore, hospital discharge planners and primary care providers should be thoughtful about what services are necessary to support the infant and family.

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<sup>12</sup> <https://www.in.gov/laboroflove/files/DCS%20Patient%20Handout.pdf>

<sup>13</sup>

<https://www.in.gov/laboroflove/files/DCS%20Process%20Overview%20for%20Medical%20Providers.pdf>

## DISCHARGE PLANNING AND ONGOING SERVICES AND SUPPORTS FOR MOTHER

The purpose of this information is to standardize peri-partum and postpartum care and expectations for all women with substance use disorders. Nurses, social workers, case managers, and other appropriate hospital staff can use this to aid discharge planning. This guidance is designed to outline recommendations known to help in maintaining or establishing postpartum recovery. Referral to these services and supports should be the standard of care.

### Hospital Procedures & Discharge Planning

All women with suspected or confirmed substance use disorders should:

- Have a social services consultation to identify concerns
- Be offered a nicotine patch on admission if they are a tobacco user
- Have a urine drug screen and, if clinically indicated, a confirmatory test
- Have a discharge letter sent to the woman's primary care provider<sup>14</sup> as well as her postpartum provider to help communicate concerns. These may be two different providers.
- The discharge letter should be accompanied by two additional documents (when clinically indicated):
  - An overview of the Department of Child Services (DCS) process for newborns referred due to maternal substance use<sup>15</sup>; and
  - An Adult Addiction Services map and contact information.<sup>16</sup>

In addition, all women with suspected or confirmed substance use disorders should have the following completed before discharge:

- An outpatient pediatric follow-up plan;
- Newborn safe sleep education; and
- Family planning/contraception plan.

For the best chance of success in getting healthy and parenting their child, all women with substance use need a plan for ongoing social and mental health support as well as treatment for substance use disorder. The plan will vary depending on the patient's circumstances, local

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<sup>14</sup>

<https://www.in.gov/laboroflove/files/Postpartum%20Letter%20to%20Primary%20Care%20Provider.pdf>

<sup>15</sup>

<https://www.in.gov/laboroflove/files/DCS%20Process%20Overview%20for%20Medical%20Providers.pdf>

<sup>16</sup> <https://www.in.gov/laboroflove/files/Addiction%20Services%20Map.pdf>

resources and the mother's stage of her treatment. Issues that should be discussed to include in the plan<sup>17</sup> are:

- Smoking cessation;
- Inpatient rehabilitation;
- Evaluation by mental health or addiction specialist;
- Intensive outpatient program;
- Counseling;
- Medication Assisted Treatment (MAT) provider;
- Community support group meetings;
- Recovery Coach;
- Relapse prevention plan;
- Home health;
- Parenting classes;
- Transportation assistance;
- Housing assistance;
- Lactation assistance; and
- Legal aid.

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<sup>17</sup>

<https://www.in.gov/laboroflove/files/Postpartum%20Discharge%20Planning%20and%20Referral%20Checklist.pdf>

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