Neonatal Abstinence Syndrome

Neonatal abstinence syndrome (NAS) is a group of problems a neonate experiences when withdrawing from narcotics (opioids) the neonate was exposed in utero. Finnegan and MacNew were the first to describe the characteristics of the infant born to the narcotic-dependent mother, using the term NAS to express the cluster of symptoms affecting the central nervous, autonomic nervous, gastrointestinal, and respiratory systems (Finnegan & MacNew, 1974). Although the presentation of NAS can be variable, withdrawal symptoms most commonly seen in neonates are tremors, irritability, decreased sleep intervals, high-pitched crying, increased muscle tone, hyperactive reflexes, poor feeding, abnormal/constant suck, diarrhea, dehydration, poor weight gain, fever, mottling, and temperature instability (Hudak & Tan, 2012). Hudak and Tan (2012) also note that onset of NAS symptoms vary depending on the drug(s) the mother abused during her pregnancy, the timing of the last dose, maternal metabolism, placental transport of the medication, and neonatal metabolism and excretion. The closer to the time of delivery the drug was consumed, the later the signs of withdrawal will occur. In general, withdrawal will occur from 24 hours after birth for heroin to up to 72 hours for methadone. There are cases in which withdrawal did not occur for up to 96 hours or more after birth. NAS symptoms can last up to 8–16 weeks of age for some neonates. It also is important to note that withdrawal symptoms are more severe for neonates whose mothers were chronic abusers and milder for premature infants.

Neonates diagnosed with NAS are not born addicted to medications but are dependent to the medications that they were exposed to in utero. The difference between addiction and dependence, according to the National Institute of Drug Abuse, is that addiction is the compulsive drug use despite the negative consequences on the person's family, social, and work life (National Institute of Drug Abuse, 2013). Dependence is when the body acclimates to the drug that is being taken, requiring more to get a specific effect. When a drug is suddenly stopped, the body will show symptoms of withdrawal.

NAS has become a major health problem for neonates born in the United States. In 2012, Patrick and colleagues did a retrospective, cross-sectional analysis of neonates diagnosed with NAS from 2000–2009 in the United States to determine the incidence and healthcare costs associated with the diagnosis. They found that the number of neonates diagnosed with NAS almost tripled during that time from 1.2 per 1,000 live births to 3.39 per 1,000 live births. A follow-up study examined the incidence from 2009 to 2012 and found that the incidence doubled in this 3-year period. In 2012, the national average of babies being diagnosed with NAS was 5.8 per 1,000 live births, or one baby born every 25 minutes (Patrick, Davis, Lehmann, & Cooper, 2015). The authors also noted that there was great regional variation of NAS in the United States, ranging from of 3.0 per 1,000 live births in the Pacific Northwest to 16.2 per 1,000 live births in the East South Central (Patrick et al., 2015).

The costs associated with the increased length of stay for the NAS baby also have increased since 2009. In 2009 the average hospital cost was $53,400; by 2012 that cost had increased to $66,700, which is 19 times higher than the average hospital stay for a healthy term neonate of $3,500 (Patrick et al., 2015). This translated into $1.4 billion in total hospital expenses in 2012, which had doubled since 2009 and is mostly attributed to Medicaid dollars (Patrick et al., 2015).

The diagnosis of NAS begins with obtaining a history from the mother on her drug use during pregnancy. This history needs to include both prescription and over-the-counter medications, herbal use, illicit drug use, smoking habits, and alcohol usage. When obtaining the history from the mother, maintain a nonjudgmental attitude and conduct the interview in a private setting away from other family members or friends, using motivational interviewing techniques.

It is very important to do the interview away from family members, especially the significant other, as many times they are unaware of the drug usage. When interviewing the mother, it is of utmost importance to make clear to the mother that the objective behind asking the questions is to be able to determine the best way to care for the neonate, not to punish the mother. If the mother admits drug use, the following information needs to be documented: the drug use, amount of drug(s) used, the route of use, the duration of use, and any history of a drug treatment program. Questions about family member drug, alcohol, or smoking habits also are important to document. Many women will not admit their own drug use but will admit to their partner or husband's drug use.

Diagnosis of the infant can be done by testing the infant's urine, hair, meconium, or umbilical cord for drugs. Urine testing is the least accurate of the tests, as urine only detects recent use of a drug. Depending on the drug used and the timing of the last dose from when the urine is obtained, the infant's urine can be negative, even though the mother admitted to drug use. Hair, meconium, and the umbilical cord all show what drugs were taken during the last one to two trimesters of the pregnancy.

Hair is not used often because a 2 mg–5 mg of hair is needed to test for drug usage, and either the babies do not have enough hair or the healthcare providers do not like to remove hair for testing. The majority of hair grows in the last trimester so a hair sample will detect usage in the last trimester of pregnancy. If using hair for drug sampling, it is important to get the hair sample prior to discharge from the hospital as environmental contamination can affect the test results.

Meconium is relative easy to collect, but to get an accurate test, the entire meconium column needs to be collected from the first stool to the first transitional stool. The different meconium samples collected in one collection container need to be thoroughly mixed prior to sending them to the lab to be tested. Most labs will only take one or two samples at the most and depending on which sample they test, the test can come back negative even though the infant is positive.

The umbilical cord is the newest method for drug testing in a newborn. The umbilical cord can be collected at the time of birth and stored up to 7 days of age, if prepared properly. The cord sample needs to be 6 in. in length and is prepared by draining the blood from the cord and rinsing the specimen in the solution recommended by the drug testing company. The cord, like meconium, will give information on drug use during the last two trimesters of pregnancy.

Physical signs and symptoms of NAS were described earlier and will vary depending on the neonate, the drugs he or she was exposed to, the timing of the last dose, and the gestational age of the neonate. Assessment tools have been developed by several authors to assist with assessing the severity of the signs and symptoms and response to the NAS treatment. The Neonatal Abstinence Scoring System (NASS), developed by Dr. Loretta Finnegan in 1975, was the first scoring tool, and is commonly referred to as the Finnegan Scoring Tool (Finnegan, Connaughton, Kron, & Emich, 1975). This is the most widely used NAS tool in NICUs in the United States today, despite the tool only recently being validated for reliability. Other scoring tools available that are considered reliable and valid are the Lipsitz tool (Lipsitz, 1975), the Neonatal Narcotic Withdrawal Index (Green & Suffet, 1981), and the Neonatal Withdrawal Inventory (Zahorondy et al., 1998). All of the tools assess what the author of the tool believes to be the most common signs and symptoms of NAS and assign the symptom a score. The symptoms vary from 8 for the Neonatal Withdrawal Inventory to 21 for the Finnegan Scoring Tool.

For a neonate diagnosed with NAS, nonpharmacological interventions are instituted first; if they do not help to alleviate symptoms, pharmacotherapy will be ordered next. Nonpharmacological interventions such as decreased light and noise levels, skin-to-skin care, and swaddling have been shown to help the infant diagnosed with NAS. A complete list is described in Table 1. Many babies with NAS have difficulty with feeding. Nursing interventions such as offering small frequent feeds, not talking to the infant when feeding so the baby can focus on eating, occasional gavage feeds, offering a

higher caloric milk so a decreased volume can be given, and encouraging breastfeeding for those neonates whose mothers are in treatment programs have been shown to help with the NAS symptoms.

Table 1 – Nonpharmacologic Interventions

- Swaddling—in a flexed position with hands midline against chest and legs loosely swaddled in lumbar flexion—to decrease sensory stimulation
- Minimize environmental and physical stimulation—low lighting and noise level—do not use TV or mobiles
- Avoidance of abrupt changes in infant's environment—handle gently and close to the body to increase sense of security
- Skin-to-skin care with the mother
- Gentle vertical rocking
- Soft voice and gentle touching to awaken baby and prepare for cares
- Limit all stimulation at first signs of distress
- Pacifiers for non-nutritive sucking
- Hand containment during cares
- Use of soft shushing, singing, or humming
- Offer firm input to feet for bracing during feeds, your hand on the infant's chest to offer firm support and maintain flexion which will increase organization for sucking and firm pressure to palate to increase and improve quality of sucking
- Frequent, small feedings for infants with feeding difficulties or gavage feeds may be needed
- Avoid talking to the infant while feeding or rocking
- Clustering care with extended rest periods.

Breastfeeding babies with NAS is a controversial subject because many healthcare providers are uncomfortable with letting mothers who have a substance abuse disorder breastfeed, even those in treatment programs. Many are concerned with the amount of drug that may transfer into the milk, but studies on both methadone and buprenorphine have demonstrated that very little of the drug passes into the breast milk and even smaller amounts are measureable in the neonate's blood or urine (Jansson et al., 2008; Ilett et al., 2012). The American Academy of Pediatrics (AAP) recommends breastfeeding for neonates experiencing withdrawal as long as the mother is in a supervised drug treatment program and the mother is HIV- and Hepatitis C–negative (Hudak and Tan, 2012). Despite this recommendation, breastfeeding rates remain low, but it should be encouraged in this population of women and infants. Several studies show that infants with NAS who are breastfed or receive breast milk (breast or bottle) for more than 75% of their feeds have decreased severity of symptoms, lower use of pharmacologic agents, and decreased length of stay, as well as increased maternal attachment (Jansson et al., 2008; McQueen, Murphy-Oikonen, Gerlach, & Montelpare, 2011; Pritham, Paul, & Hayes, 2012; Hodgson & Abrahams, 2012; Welle-Strand et al., 2013; Crillo & Francis, 2016; Holmes, Schmidlin, & Kurzum, 2017).

Pharmacological treatment will be administered to neonates when the nonpharmacological interventions are insufficient to control the symptoms of NAS. There are no universal recommendations on which drug to treat the neonate with except that the AAP recommends therapy with the same class as the prenatal substance used, based on symptom severity (Hudak & Tan, 2012). Currently there is no standardized therapy; a high variability exists among practices in the United States and a best approach has not been determined. The most commonly used drugs to treat NAS are morphine, methadone, phenobarbital, and clonidine.

As with any neonate that requires care, the nurse also must care for the mother of the neonate. To give the best care to the neonate it is important to admit to yourself that these infants and their mother can be difficult and time consuming to deal with, and to confront your feelings regarding the issue of maternal substance abuse disorder and neonatal abstinence syndrome. Many times the mother-infant dyad requires a lot of energy and flexibility on the nurse's part. Involving the social worker and other team members such as occupational/physical/music therapy and pastoral care for your unit often is helpful as they have many resources available to them to assist with the care of the mother-infant dyad.

When caring for this mother-infant dyad, it is important to remember that a substance use disorder is an illness. The mother was an addict prior to becoming pregnant; she did not become pregnant and then decide to become

an addict. Just as you would treat any parent who has a disease professionally and with compassion, you must treat the mothers of babies with NAS professionally and with compassion. By providing consistency in caregivers, the nurses will be able to develop a therapeutic relationship with the mothers. This will help with teaching the mother when the time comes for discharge. When working with the mother, give clear and specific guidelines of her expected behavior while in the mother-infant unit, special care, or intensive care unit. Many addicts struggle with long-term planning, so helping them to identify both daily goals (a one-day-at-a-time approach) as well as the longer-term goals that are required for discharge planning is useful.

Education of the mother to care for her neonate is essential to ensure the neonate will receive the proper care once discharged home. The educational material needs to be written at an appropriate level for the mother's educational level. Present material that is accurate and from a reliable source, such as the parent handout that accompanies this module, in a nonjudgmental manner. The parent education should be goal directed, with the goal of taking their neonate home with them. In addition to the normal newborn teaching, items that the nurses need to ensure are addressed during the hospitalization include the following:

- Assist the mother with attaching emotionally to her neonate. Skin-to-skin care and breastfeeding have been shown to increase maternal attachment (Pritham, Paul, & Hayes, 2012).
- Provide positive reinforcement and immediate feedback on all caretaking activities.
- Explain the neonate's behavior and sensitivity to the environment and that this behavior is not a rejection of her as a mother.
- Teach the mother to intervene early with her crying baby, as it is easier to settle a baby earlier than later.
- If the baby will go home with medication to control the symptoms of NAS, ensure the mother knows how to administer the medication as well as how to obtain the medication.

At the time of discharge the neonate needs to have a primary care provider identified with an appointment made, a referral for a home visit by a nurse, referral to Early Intervention/Help Me Grow Programs, and a referral to children's services if the neonate had a positive drug screen. The determination of whether to send the baby home with the mother is dependent on the city, county, and state the mother resides in as well as the substance used. Helping the mother find a drug rehabilitation program will assist with the mother's recovery from her addiction.

Long-term outcomes of neonates exposed to narcotics and other substances in utero are variable depending on the substance the neonate was exposed to. There are not many studies on this topic because this group of neonates is difficult to follow long-term. However, a 2017 study by Oei and colleagues looked at school performance of neonates diagnosed with NAS. The authors found that neonates diagnosed with NAS had lower mean test scores by third grade than their counterparts who did not have an NAS diagnosis and that the deficit was progressive (Oei et al., 2017). Other studies have reported delays in language, motor, cognition, growth, behavioral, and ophthalmic development; an increased incidence of sudden infant death syndrome; and increased rehospitalization rates due to maltreatment, trauma, and mental and behavioral disorders (Maguire et al., 2016; Uebel et al., 2015). With the developmental delays that have been reported, it is unclear whether the in utero exposure of the substances or the home environment of the neonate are the causes for the delays. More studies need to be done to determine what long-term complications are the result of exposure to drugs in utero.

References

Crillo, C., & Francis, K. (2016). Does breast milk affect neonatal abstinence severity, the need for pharmacologic therapy and length of stay for infants of mothers on opiate maintenance therapy during pregnancy? *Advances in Neonatal Care, 16*(5), 364–378.

Finnegan, L. P., & MacNew, B.A. (1974). Care of the addicted infant. *American Journal of Nursing, 74*(4), 685–693.

Finnegan, L. P., Connaughton, J., Kron, R., & Emich, J. P. (1974). Neonatal abstinence syndrome: Assessment and management. *Addictive Diseases: International Journal, 2*(1), 141.

Green, M., & Suffet, F. (1981). The neonatal narcotic withdrawal index: A device for the improvement of care in the abstinence syndrome. *American Journal of Drug and Alcohol Abuse, 8*(2), 203–213.

Hodgson, Z. G., & Abrahams, R. R. (2012). A rooming-in program to mitigate the need to treat for opiate withdrawal in the newborn. *Journal of Obstetrics and Gynaecology Canada, 34*(5), 475–481.

Holmes, A. P., Schmidlin, H. N., & Kurzum, E. N. (2017). Breastfeeding considerations for mothers of infants with neonatal abstinence syndrome. *Pharmacotherapy, 37,* 861–869. doi: 10.1002/phar.1950

Hudak, M. L., & Tan, R. C., the Committee on Drugs and the Committee on Fetus and Newborn. (2012). Neonatal drug withdrawal. *Pediatrics, 129*, e540–560.

Ilett, K. F., Hackett, L. P., Gower, S., Doherty, D. A., Hamilton, D., & Bartu, A. E. (2012). Estimated dose exposure of the neonate to buprenorphine and its metabolite norbuprenorphine via breastmilk during maternal buprenorphine substitution treatment. *Breastfeeding Medicine*, 7, 269–274.

Jansson, L. M., Choo, R., Velez, M., Harrow, C., Schroeder, J. R., Shakleya, D. M., & Huestis, M. A. (2008). Methadone maintenance and breastfeeding in the neonatal period. *Pediatrics, 121*(1), 106–114.

Lipsitz, P. J. (1975). A proposed narcotic withdrawal score for use with newborn infants: A pragmatic evaluation of its efficacy. *Clinical Pediatrics, 14*, 592–594.

Maguire, D. J., Taylor, S., Armstrong, K., Shaffer-Hudkins, E., Germain, A. M., Brooks, S. S., … Clark, L. (2016). Long-term outcomes of infants with neonatal abstinence syndrome. *Neonatal Network, 35*(5), 277–286.

McQueen, K. A., Murphy-Oikonen, J., Gerlach, K., & Montelpare, W. (2011). The impact of infant feeding method on neonatal abstinence scores of methadone-exposed infants. *Advances in Neonatal Nursing, 11*(4), 282–290.

National Institute on Drug Abuse. (2013). Is there a difference between physical dependence and addiction? Retrieved from www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/frequently-asked-questions/there-difference-between-physical-dependence

Oei, J. L., Melhuish, E., Uebel, H., Azzam, N., Breen, C., Burns, L., … Wright, I. M. (2017). Neonatal abstinence syndrome and high school performance. *Pediatrics, 139*(2), e20162651.

Patrick, S. W., Schumacher, R. E., Benneyworth, B. D., Krans, E. E., McAllister, J. M., & Davis, M. M. (2012). Neonatal abstinence syndrome and associated health care expenditures United States, 2000-2009. *Journal of the American Medical Association, 307*(18), 1934–1940.

Patrick, S. W., Davis, M. M., Lehmann, C. U., & Cooper, W. O. (2015). Increasing incidence and geographic distribution on neonatal abstinence syndrome: United States 2009–2012. *Journal of Perinatology, 35*, 650–655.

Pritham, U. A., Paul, J. A., & Hayes, M. J. (2012). Opioid dependency in pregnancy and length of stay for neonatal abstinence syndrome. *Journal of Obstetrics, Gynecology, Neonatal Nursing, 41*(2), 180–190.

Uebel, H., Wright, I. M., Burns, L., Hilder, L., Bajuk, B., Breen, C., … Oei, J. L. (2015). Reasons for rehospitalization in children who had neonatal abstinence syndrome. *Pediatrics, 136*(4), e812–e820.

Welle-Strand, G. K., Skurtveit, S., Jansson, L. M., Bakstad, B., Bjarko, L., & Ravndal, E. (2013). Breastfeeding reduces the need for withdrawal treatment in opioid-exposed infants. *Acta Paediatrics, 102*(11), 1060–1066.

Zahorondy, W., Rom, C., Whitney, W., Giddens, S., Samuel, M., Maichuck, G., & Marshall, R. (1998). The neonatal withdrawal inventory: A simplified score of newborn withdrawal. *Journal of Developmental Pediatrics, 19*, 89–93.

Neonatal Abstinence Syndrome: Information for Parents

During pregnancy the mother and her baby share their blood supply through the placenta. This means that substances a mother takes also may reach her developing baby. This is true for opioids (opium, morphine, codeine, hydrocodone, oxycodone, heroin, and fentanyl) and opioid replacement therapies (methadone, buprenorphine). (Opioid drugs sold under brand names include OxyContin®, Percocet®, Vicodin®, Percodan®, Tylox®, and Demerol®, among others.) When a baby has been exposed to drugs or medication while the mother is pregnant, the baby may experience signs of withdrawal after birth.

Neonatal abstinence syndrome (NAS) is a diagnosis given to a baby when he or she shows signs of withdrawal. Neonatal means "newborn." Abstinence means "removed." Babies whose mothers used drugs or medication during pregnancy can show withdrawal signs from 24 to 96 hours after birth. Babies will have discomfort (as do adults) when they go through withdrawal from a drug.

Signs of withdrawal depend on the drug or medication taken during the mother's pregnancy—the amount, how long she was taking drugs, and her use of other substances like nicotine, alcohol, or marijuana. The most common signs are

- crying that can't be easily comforted
- bad temper and/or stiffness
- trouble getting to sleep or staying asleep
- vomiting, loose stools (and diaper rash)
- skin scratches (from rubbing face, knees, and elbows)
- uncontrolled movements and shaking
- trouble eating; losing more weight than expected or not gaining weight
- sweating
- rapid breathing, nasal stuffiness, frequent yawning, frequent sneezing
- fever
- mottled skin.

Some babies may have mild signs of withdrawal and will not need medications. Others will have more severe signs that require a prolonged hospital stay in a special care nursery or a neonatal intensive care unit.

If your baby begins to show signs of withdrawal, the nurses may use a scoring and assessment tool to see how to teach your baby. These tools are used to help decide what sort of support, treatment, or medication your baby may need to help them feel better and recover comfortably. There are several tools available to describe NAS symptoms, with the most common one being the Finnegan tool. While the Finnegan is the most commonly used tool, other tools such as the Lipsitz, Neonatal Withdrawal Inventory, and Neonatal Narcotic Withdrawal Index are also reliable. Ask your nurse for a copy of the scoring tool and to explain it to you. This will help you recognize your baby's withdrawal symptoms. Ask your nurse to show you the baby's symptoms.

When your baby begins to show signs of withdrawal, the nurses and providers will work to create a care plan for you and your baby. It is important for you to help as much as possible with your baby's care. You can help in many ways to ease your baby's discomfort. The hospital staff is here to help.

Here are some things you can do:

- Hold your baby skin-to-skin.
- Talk to your baby in a soft voice. (Even though your baby can't tell you, he or she knows your touch and your voice, which are very different from those of the staff.)
- Sing or hum softly to your baby.
- Learn how to swaddle your baby in a flexed position with their hands near their face/chin.
- Go slow and be gentle when picking your baby up.
- Keep the room quiet and the lights low.
- Offer your baby a pacifier to suck on.
- Rock your baby gently in a vertical (up and down) direction.

Your baby needs a lot of sleep. Ask the staff when you can come hold and feed your baby. Plan feeding, bathing, and diapering together so that you do them at one time.

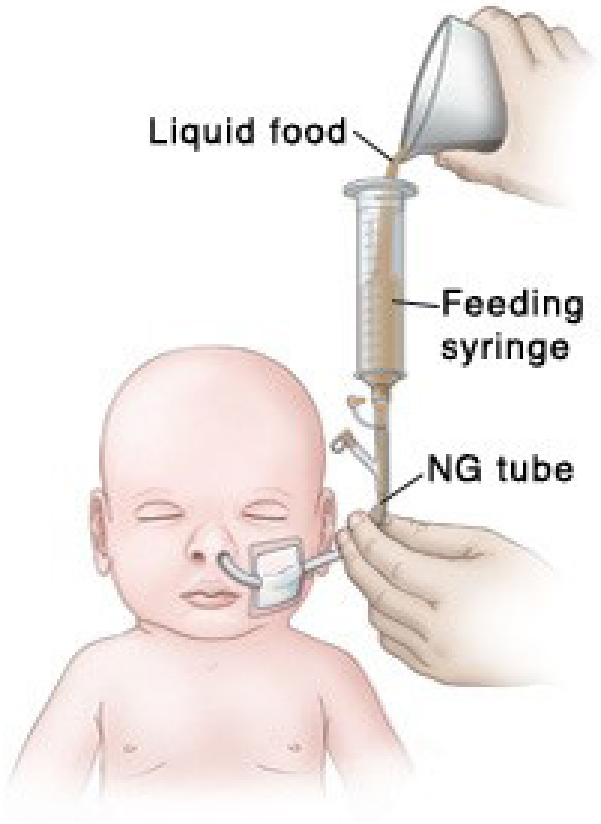
Another important part of caring for your baby right now is supporting his or her feeding. Babies who are experiencing NAS symptoms may need more calories (to support healthy growth) and more fluids than other newborns. Breastfeeding is recommended for all mothers who are HIV-negative and clean from street drugs. Even if a mother is on medication to treat their addiction, she can still breastfeed. Breastfeeding your baby is one of the best ways to decrease the withdrawal symptoms, decrease the amount of time he or she is in the hospital, and decrease the amount of medication your baby may need to ease the withdrawal symptoms. You and your medical team will work together to create a plan that is best for your baby. (This may include the use of formula, donor breast milk, or human milk fortifier for added calories and nutrients.)

Many times, babies with NAS have a hard time eating. There are things you can do to make feeding time better and less stressful for your baby. If your baby is extremely irritable or having a hard time eating, the lactation consultants and nurses can help you:

- Position your baby so that he or she is in a flexed, comfortable, swaddled position.
- Position the breast or bottle nipple in your baby's mouth to make sucking easier.
- Limit distractions that keep your baby from focusing on eating.

Remember, babies can use a lot of energy trying to eat. Sometimes, they can burn more calories eating than they take in. Sometimes calories need to be supplemented by feeding them with a tube that goes through their mouth or nose, directly to their stomach. This helps them get more calories and nutrition because it takes much less effort.

If your baby continues to show signs of withdrawal in spite of doing the above interventions, then your baby's



Nasogastric feeding tube. © 2018 The StayWell Company, LLC. Reprinted with permission.

provider (nurse practitioner or physician) may start your baby on medicine to help decrease your baby's NAS symptoms. Morphine and methadone are the most common medications used but there are times when other medicines such as phenobarbital or clonidine need to be added to help. Depending on where your baby is being treated and the medication being used, your baby may go home on medication. If your baby goes home on medication, the nurses will teach you how to give the medicine and how often to give it. It is very important to give the exact amount of drug at the exact time.

You are a very important member of your baby's care team. The love and care you give to your baby during this time will help him or her recover more quickly. When you are in the neonatal intensive care unit, we encourage you to spend as much time as possible with your baby, holding and getting to know him or her. In most cases,

the more you participate in your baby's care when in the hospital, the greater the chance you will be able to take your baby home. If mom is unable to be there, you can invite your spouse, partner, friend, or other family member to help with holding and caring for your baby.

Once you and your baby are discharged home, it is very important to keep all appointments with your baby's pediatric providers (nurse practitioner or physician) so your baby can remain healthy by receiving immunizations on time and to monitor your baby's growth and development. It also is important that you continue in your treatment program and follow up with your physician. The postpartum period can be a difficult time in a parent's recovery. And your body is changing. Many mothers experience postpartum anxiety or depression. It's normal to feel tired and overwhelmed. Have a plan and ask for help. Work with your care providers and learn what you can do to limit the risks of relapse and overdose and be as healthy as you can be.

At this point no one knows what long-term problems babies exposed to drugs before birth can have. We do know that babies exposed to opioids during pregnancy can do just as well as other babies who were not exposed. But every baby does better when they get regular medical care and developmental screenings to make sure they are meeting their milestones. Depending on where you live and what your unique circumstances are, your local children's services may become involved with you and your baby. It is important to remember that they are contacted to ensure your baby has the best possible situation to go home to, not to punish you.

Once your baby is home, you need to pay close attention and look for any withdrawal symptoms—some babies can have symptoms for up to 4 months. Your provider will not send your baby home until they have gotten through the worst of their withdrawal, but remember your baby may be fussier than a baby who was not exposed to drugs before birth. If your baby has signs of the withdrawal or will not eat, has diarrhea and/or vomiting, or cannot be calmed down, please call your nurse practitioner or pediatrician immediately. Call 911 if your baby has a seizure, stops breathing, or turns blue.