



Clinical Update: May 2023

MANAGING NEONATAL ABSTINENCE SYNDROME: SCREENING AND MEDICATION MONITORING

Neonatal abstinence syndrome (NAS) affects infants who were exposed to opioids or other substances while in the womb.¹ NAS has become more common in recent years, which poses a substantial burden for healthcare providers who care for these newborns. According to the CDC, between 2010 and 2017, the number of newborns with NAS grew by 82% nationally.² In the United States, it is estimated that one baby is diagnosed with NAS every 24 minutes, which equates to more than fifty-nine babies who are diagnosed every day.

When a pregnant woman uses opioids, the drugs can pass through the placenta and into the baby's bloodstream, causing the baby to become physically dependent on the drug.³ After birth, when the drug is no longer available, the baby experiences withdrawal symptoms most often within 72 hours of birth. These symptoms can include tremors, hyperactive reflexes, seizures, irritability, sleep problems, and vomiting. It should be known that NAS may be referred to as NOWS, which stands for neonatal opioid withdrawal syndrome.

The severity of NAS can vary depending on several factors.⁴ It is important to note that neither the expression nor severity of NAS are dependent upon the dose the mother is exposed to. The management of mild NAS may include supportive care and nonpharmacological treatment (such as rooming-in), while liquid oral morphine or liquid oral methadone may be used for more moderate cases of NAS. Additional medications, such as clonidine or phenobarbital, may be administered as adjuvants in infants with severe NAS who do not respond to morphine or methadone.

Certain variables contribute to the high rate of opioid usage during pregnancy.⁵ One risk factor can be use of opioids for pain relief. Pregnant women who suffer from pregnancy-related pain, such as back pain or pelvic pain, may be prescribed opioids to alleviate their symptoms.⁶ Furthermore, women who have a prior opioid use disorder may continue to use opioids during pregnancy, either because they are either not ready to quit or because they are concerned about the effects of withdrawal on the developing fetus. Considering alternatives to opiate usage during pregnancy is an important part of managing the prevalence of NAS. Pregnant women who need pain relief should carefully be examined to find the best therapeutic option. Furthermore, pregnant women with opioid use disorder should receive comprehensive addiction treatment services, such as medication-assisted treatment (MAT) and cognitive behavioral therapy (CBT).

Pregnant women with opioid use disorder (OUD) often receive insufficient or no prenatal care due to several reasons.⁷ These reasons include lack of awareness of pregnancy, fear of legal repercussions for drug use or exposing the unborn child to drugs, financial constraints related to daycare for other children, transportation, and concerns about losing custody of their other children. It is important to recognize pregnancy as a transformative period filled with potential for positive change. Women with OUD may be motivated to seek therapy not only to protect the well-being of their baby but also because their perception of themselves and their unborn child undergoes a significant shift during pregnancy.

Obtaining accurate information on substance abuse solely through a self-report from pregnant women can be challenging. Self-reporting can be biased due to the negative perception associated with drug use, the inclination for individuals to deny their drug use as part of the disease process, and the fear of facing social and legal consequences. To complement maternal self-reported histories, objective drug monitoring methods serve as valuable tools. Urine drug screenings often involve point-of-care testing which widely uses immunoassay techniques. While these tests offer the advantage of rapid results, they are considered presumptive testing, and results should be confirmed because presumptive tests have the possibility of providing false positives from cross-reacting substances.⁸ False negative results may also occur due to a lack of cross reactivity across a class.



Depending on the immunoassay employed, the degree of cross-reactivity between medications in a class (or to other cross-reacting substances) may change. Immunoassay results that are incorrectly interpreted could be harmful to overall patient care and trust. Additionally, if contested in a court of law, results of presumptive testing might not hold up. **SAMHSA recognizes that failure to perform confirmatory/definitive testing urine tests can be disastrous as it may provide false-positive findings, which may result in the loss of child custody and, in some cases, legal prosecution.** ⁴ Aegis provides definitive testing in both urine and oral fluid in clinical settings.

Neonatal abstinence syndrome is becoming more common in the United States, and opioid use during pregnancy is a major risk factor. To tackle this problem, healthcare practitioners could consider urine drug monitoring to detect opioid use in pregnant women, offer counseling and support for safe medication-assisted treatment alternatives, and track treatment effectiveness to prevent the development of NAS. **The American College of Obstetricians and Gynecologists (ACOG) urges firmly that medical professionals should not let the interpretation of a positive urine drug screen prevent or impede the provision of essential medical care to pregnant patients.**⁹ Drug monitoring can provide valuable information to healthcare providers in managing opioid usage during pregnancy, ensuring better health outcomes for patients. This includes tracking medication adherence and identifying any additional substance use that may pose risks to the developing fetus. However, it is crucial to emphasize that a positive urine drug test result should never be used as a justification to withhold or refuse necessary prenatal care. Healthcare providers must approach the situation with empathy, devoid of prejudice, and recognize that substance use disorders are complex medical conditions that require comprehensive treatment and support. By adopting a patient-centered approach, healthcare professionals can create a secure and trusting environment that promotes open communication, facilitates access to essential treatments and resources, and improves maternal and fetal outcomes.

NOTICE: The information above is intended as a resource for health care providers. Providers should use their independent medical judgment based on the clinical needs of the patient when making determinations of who to test, what medications to test, testing frequency, and the type of testing to conduct.

References:

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