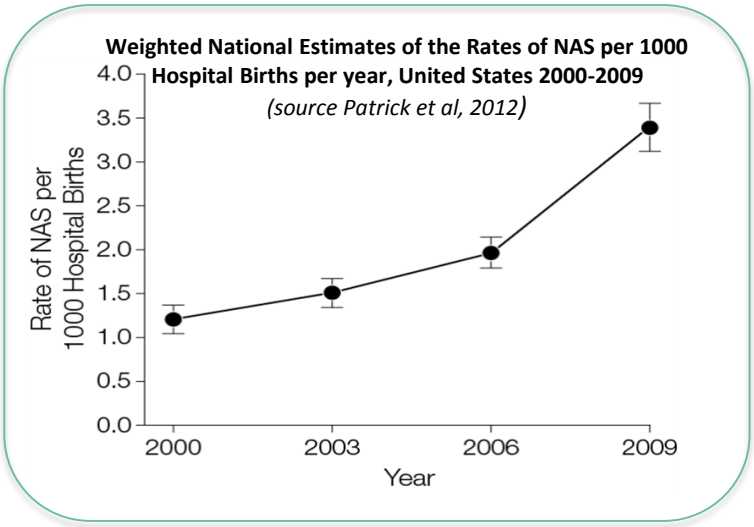
Issue brief

Drug-Exposed Newborns

Neonatal abstinence syndrome (NAS) refers to cases in which newborns experience drug withdrawal shortly after birth due to drug exposure in utero. Today, one of the most common causes of NAS is maternal use or abuse of opioids during pregnancy. In the case of opioids, NAS can result from the use of prescription drugs as legitimately prescribed, from the abuse of prescription drugs, or from the use of illegal opioids like heroin.

Research has shown that the use or abuse of opioids during pregnancy is associated with a significantly increased risk of poor birth outcomes, such as low birthweight.[1] Babies born to mothers who took or abused opioids during pregnancy have tested positive for these drugs at birth, showing traces in the umbilical cord, placenta, and stool.[2] Researchers have also found that mothers who took opioids during the first two months of pregnancy were two times more likely to have a pregnancy affected by a neural tube defect than women who did not use opioids during pregnancy.[3]



Key Points:

NAS refers to cases in which newborns experience drug withdrawal shortly after birth. This is caused by exposure to certain drugs in utero.

The rate at which opioids have been prescribed as painkillers has risen significantly in the past few years. Common prescription opioids include hydrocodone, oxycodone, methadone, and morphine.

NAS can result from appropriate use of a prescription drug as well as from abuse of legal or illegal medication, such as opioids.

Currently, there is no way to predict which babies will have NAS or how severe their symptoms will be. This can be influenced by factors including dosage of opioid, frequency of use, genetics, and gestational age at birth.

NAS is on the rise, and more providers are paying attention to opioid use during pregnancy.

The incidence of NAS is on the rise

Between 2000 and 2009, the number of mothers found to be using opioids during pregnancy increased from 1.19 to 5.63 per 1,000 US hospital births.[4] In that same time period, NAS diagnoses increased from 1.20 to 3.39 per 1,000 hospital births per year.[4] NAS babies were more likely than all other hospital births to be born at low birthweight and to have respiratory complications, feeding difficulties, and seizures.[5] The average length of hospital stay for an infant with NAS is 16 days, compared to 3 days for infants born without NAS. Newborns with NAS are more likely to come from low-income communities, and are more likely to be covered by Medicaid.[5]

NAS symptoms and severity vary

The symptoms and severity of NAS vary, and not all newborns exposed to opioids or other drugs in utero will experience NAS. The severity of symptoms depends on a wide variety of factors, including the infant's gestational age at birth, whether the mother used nicotine or other psychoactive drugs, and the quality of care received in the hospital. Genetics are also thought to play a role, but the specific genes or mechanisms involved are unknown.

Symptoms of NAS include:

- Persistent or prolonged high-pitched crying
- Central nervous system hyper irritability
- Gastrointestinal dysfunction such as vomiting or diarrhea (which can lead to weight loss)
- Excessive sucking reflex
- Sleeping problems
- Frequent yawning
- Nasal stuffiness or sneezing
- Fever
- Sweating
- Rapid breathing
- Feeding problems
- Respiratory distress
- Dehydration
- Tremors or seizures

NAS is a treatable condition, but long term health effects are unknown

Infants experiencing NAS often show signs of distress, including long periods of crying, inability to be soothed, tremors, poor feeding, fever, vomiting, seizures, and other symptoms. Newborns with NAS must be properly assessed to customize the treatment appropriately to the infant's specific needs. Withdrawal from short-acting opiates is usually apparent within the first 24-72 hours of life. However, symptoms may appear as soon as within a few minutes to as much as two weeks after birth. As most symptoms are manifested within 72 hours, many assessment tools use this benchmark for diagnosis of NAS.[5]

Treatment options are available for women who abuse opioids during pregnancy

Treatment options for pregnant women who are addicted to opioids include a medication-assisted treatment (MAT) program (using methadone or buprenorphine) or, in rare cases, detoxification. NAS in the newborn can be more easily controlled if the mother has been in a MAT program rather than receiving no treatment. The program prevents complications associated with illicit drug use and withdrawal, encourages prenatal care and treatment, and helps the woman avoid the risks of associating with a drug culture.[6] Treatment options are often most successful when a woman receives medical care early in pregnancy.

Both medical and nonmedical treatment options exist for infants with NAS

In addition to medical treatment, other things can be done to help soothe the infant with NAS such as minimizing light and noise, swaddling, breastfeeding, and providing skin-to-skin contact with the mother. Mothers may need extra guidance, and can benefit from programs that improve the bond between mother and child. For neonates, therapy is aimed at rapid clinical stabilization of opioid-exposed infants followed by gradual reduction of the medication under careful medical supervision. The average newborn will recover from NAS in 5 to 30 days with these treatments.

References:

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