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The increasing use of opioid analgesics has also affected patterns of use by women of child bearing age and is associated with an increasing prevalence of newborns who display symptoms of opioid withdrawal after delivery.

Neonatal abstinence syndrome (NAS) is a constellation of physiologic and neurobehavioral manifestations (drug withdrawal syndrome) exhibited by newborns who have been exposed in utero to prescription or illicit drugs capable of producing tolerance and physical dependence. NAS most commonly occurs in neonates with sufficient exposure to prescription opioids, buprenorphine or methadone in the context of medication-assisted therapy, or illicit opioids, including heroin. Typically manifesting in the first day or two of life, affected neonates may exhibit “hypertonia, autonomic instability, irritability, poor suckling reflex, impaired weight gain, and less commonly seizures.”

Although medically-appropriate opioid use in pregnancy is not uncommon, there has been a renewed focus on maternal opioid dependence, opioid exposure during pregnancy, and infants born with NAS.

NAS increased threefold from 2000 to 2009, and increased another 70% between 2009 and 2012; during the same time period maternal opioid use increased more than four-fold. Aggregate hospital charges for NAS increased from $732 million to $1.5 billion (P<0.001), with 81% attributed to state Medicaid programs in 2012. NAS incidence varied by geographic census division, with the highest incidence rate (per 1000 hospital births) of 16.2 in the East South Central Division (Kentucky, Tennessee, Mississippi and Alabama) and the lowest in West South Central Division Oklahoma, Texas, Arkansas and Louisiana 2.6 (95% CI 2.3 to 2.9). The rate of neonatal intensive care unit (NICU) admissions for NAS increased from seven cases per 1,000 admissions in 2004 to 27 cases per 1,000 admissions in 2013. In September 2013 the FDA instituted a black box warning for extended-release opiates, warning of “life-threatening neonatal opioid withdrawal syndrome” despite the fact that there is no evidence of infant death from this syndrome. In February 2015 the GAO released a report on prenatal drug use and newborn health and concluded that “federal efforts need better planning and coordination.” The report also found that between fiscal years 2008-2014, “no projects [funded by federal agencies] focused on the prevention or understanding of prenatal opioid use or any costs associated with such use.”
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Reference


