Neonatal Abstinence Syndrome (NAS) is a group of signs occurring when an infant experiences withdrawal from substances or prescribed medications, such as opioids, benzodiazepines, or barbiturates, following in utero exposure. While NAS is the general term for neonatal withdrawal due to both opioid and non-opioid substance exposures, neonatal opioid withdrawal syndrome (NOWS) falls within the NAS definition and refers to withdrawal caused specifically by opioids during the first 28 days of life.

WHAT IS THE PURPOSE OF NAS SURVEILLANCE?

According to the Council of State and Territorial Epidemiologists (CSTE), "standardized surveillance measures of NAS are needed to better understand incidence and burden of disease, to assess the impact of newborn treatments, to monitor long term effect, and to support connecting families with public health or clinical services" (CSTE, 2023).

WHAT ARE THE CRITERIA FOR NAS REPORTING?

All **confirmed** NAS/NOWS cases of neonates (birth up to 28 days of life) who have symptoms of withdrawal due to in utero exposure to opioids, benzodiazepines, or barbiturates via prescription, medication for opioid use disorder (MOUD), or illegal use should be reported to the Department of Health during birth hospitalization, subsequent hospitalization, or upon admission to a residential pediatric recovery center.

Confirmed NAS Case

Positive infant drug screen for opioids, benzodiazepines, or barbiturates from a neonate less than 28 days of age; **OR**
Positive maternal drug screen and/or maternal medical record containing information about use of prescribed or non-prescribed opioids, benzodiazepines, or barbiturates in the current pregnancy; _**AND**_
- a newborn diagnosis of NAS/NOWS (including, but not limited to ICD-10 codes P96.1, P04.49, P04.14, P04.17); **OR**
- a chief complaint that mentions NAS/NOWS; **OR**
- two or more clinically compatible symptoms of NAS/NOWS, where the signs have not been explicitly attributed by a provider to an alternative diagnosis or condition

Clinically Compatible Signs/Symptoms of NAS/NOWS

Body Shakes (tremors)	Poor Feeding (including poor/excessive suck)	Loose Stools
Seizures (convulsions)	Tachypnea	Vomiting
Hyperactive Moro Reflex	Fever	Blotchy Skin (cutaneous mottling)
Hypertonia	Poor Sleep	Nasal Congestion
High Pitched Cry	Lots of Yawning	Sneezing
Skin Abrasions/Excoriation	Myoclonus (including hiccups)	Sweating
Irritability or inability to console (excessive crying)		Respiratory Distress/Nasal Flaring

HOW SHOULD NAS CASES BE REPORTED?

Effective January 1, 2020, all NAS cases should be reported to the Bureau of Family Health's Division of Newborn Screening and Genetics (DNSG) via the Internet Case Management System (iCMS).

WHEN SHOULD NAS CASES BE REPORTED?

NAS case notification forms for all neonates who meet the NAS case criteria should be submitted to the DNSG via iCMS within 4 days after discharge or 28 days of life, whichever comes sooner.

If a facility is transferring a neonate who meets the NAS case criteria, the transferring facility should submit a case notification form in iCMS within 4 days after transfer.

WHAT SHOULD YOU DO?

- **DO** report all confirmed NAS cases in iCMS.
- **DO NOT** report suspected NAS cases in iCMS. A suspected case is defined as: Diagnosis or chief complaint of NAS with unknown drug use or no documented use of opioids, benzodiazepines, or barbiturates.
- **DO NOT** report non-Pennsylvania resident NAS cases. If an infant's parents have an out-of-state address but the infant will be residing in PA after birth, an NAS report should be submitted (ex: infants discharged to a foster family).
- **DO** submit NAS case notifications which include opioid, benzodiazepine, or barbiturate exposure. If a NAS case notification does not include one of the substances listed above, it does not meet state reporting requirements.
- **DO** continue to make agency referrals as necessary (including but not limited to Childline and Early Intervention referrals). NAS reporting via iCMS does not constitute a notification or referral to any other agency.

IMPORTANT INFORMATION

Every child diagnosed with NAS is eligible for, at a minimum, Early Intervention At-Risk Tracking. Referrals to Early Intervention can be made through the CONNECT Helpline 1-800-692-7288 or email help@connectpa.net, or by submitting a form online.

Hospitals are required to notify the Department of Human Services that they are caring for a substance affected infant (defined as a child, less than one year of age, who the provider has determined to be born affected by substance use or withdrawal symptoms resulting from prenatal substance exposure or fetal alcohol spectrum disorder) in accordance with Pennsylvania Act 54 of 2018 and Federal Comprehensive Addiction and Recovery Act of 2016 (P.L. 114-198, 7/22/2016), Title V, Section 503 Amended Sections 106 (B)(2)(B)(II) and (III) of the Child Abuse Prevention and Treatment Act. Medical providers must submit this notification to the Department of Human Services' ChildLine and the development and initiation of a plan of safe care, with multidisciplinary team input, to address the needs of both the infant and family member or caregiver must be offered to the family/caregiver. Given that all neonates who meet the Department of Health's NAS case definition are also considered substance affected infants per the Department of Human Services definition, a ChildLine notification should be made for all neonates with NAS and a plan of safe care offered to the family/caregiver. For more information on ChildLine reporting and plans of safe care, please visit www.dhs.pa.gov/keepkidssafe.

RESOURCES FOR MORE INFORMATION

You can contact the Division of Newborn Screening Genetics at 717-783-8143 or visit the website listed below PA DOH Newborn Screening: https://www.health.pa.gov/topics/programs/Newborn-Screening/Pages/NAS.aspx