

**UNC Newborn Nursery**  
**Clinical Guidelines for the Treatment of Neonatal Abstinence Syndrome**

**Screening for NAS:**

- Infants should be screened for Antenatal Drug Exposure as detailed in the “Clinical Guidelines for Newborn Drug Screening.” Any baby with **known exposure** and/or **positive screen** should be scored for withdrawal.

**General:**

- Approximately 42-94% of infants exposed to opiates in utero will experience withdrawal symptoms (Doberczak et al., 1991), with infants exposed to larger doses having worse withdrawal symptoms (Dahse et al., 2002).
- If exposed to heroin, signs and symptoms of withdrawal may appear by **48 hours**. Other drugs, such as methadone have a longer half life and therefore symptoms of withdrawal may not present until **48-72 hours** after birth and can even be delayed up to 4 weeks (Hudak et al., 2012)).
- Infants born to mothers on methadone or suboxone may need inpatient observation for up to **5 days**.
  - Discharge at **72 hours** may be acceptable depending on the social situation.
  - Infants with a positive drug screen should be observed based on the substance used.
- Non-pharmacological measures to minimize stimulation such as swaddling, low lights, decreased noise, pacifier use and small frequent feeds should be standard. Parents should be taught these measures.
  - Counsel the parents regarding withdrawal symptoms and when they may occur.
  - Remember to support parents; many feel extremely guilty for putting their baby in this situation and are trying to do everything they can to care for their child.
- Involve social work early to help with discharge planning and follow up needs.

**Instructions for NAS monitoring and treatment:**

- Initiate opioid withdrawal scoring for any infant with a **positive drug screen or symptoms of withdrawal**.
  - Infants should be scored by the RN every 4 hours.
  - The infant should not be scored when it is hungry.
  - Observe the infant between scoring intervals for any of the signs of withdrawal.
  - Record a zero for any sign that is not seen during the interval.
- If score is  $\geq 8$ , change scoring interval to **every 2 hours** until score decreases to  $< 8$ .
- Notify MD/NP:
  - If 3 consecutive scores  $\geq 8$  or 2 consecutive scores  $\geq 12$ :
    - Initiate pharmacological therapy or increase dose by 10%.
    - Reassess within two hours of any change in morphine dose
  - If the score is  $< 8$  for 24 hours, consider weaning dose by 10%.
    - Weaning should occur only once every 24 hours.
    - Reassess within two hours of any change in morphine dose.
- If pharmacological therapy is indicated, the drug of choice is oral morphine. Start with **0.03-0.06 mg/kg/dose** PO every 4 hours (good beginning dose is **0.1 mg/dose**)(Hudak, et al., 2012). Once started, morphine must be continued PO every 4 hours; see above for dose adjustments. Some experts recommend adjuvant clonidine (Agthe, et al. 2011). *Consider pharmacy consult.*

**Additional indications for pharmacotherapy (outside of score on opioid wean flow sheet) include:**

- Seizures (Transfer to NCCC)
- Inability to sleep
- Poor feeding
- Elevated temperature
- Diarrhea/Vomiting

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