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, Tan 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 ≥ 8, change scoring interval to every 2 hours until score decreases to < 8.
- Notify MD/NP:
  - If 3 consecutive scores ≥ 8 or 2 consecutive scores ≥ 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, Tan 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.
  - The infant will require cardio-pulmonary monitoring once morphine is started, therefore transfer to the NCCC or the pediatric floor is required.
**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

**References:**


**Additional References (not cited):**


