

Adjunctive Therapy for Neonatal Abstinence Syndrome

Predominant opioid exposure?
YES^{11,12}

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NO

If infant cannot progress to the next morphine level of treatment at any level, oral clonidine may be considered.

Start 1 mcg/kg/dose every 4-6 hours to be given with morphine dose^{12,13}. May be increased by 0.5-1 mcg/kg/day to a maximum of 12 mcg/kg/day¹² if severity of withdrawal does not improve. Always use weight at initiation for dose increase. Monitor blood pressures and heart rates with each increase in dose**.

Once morphine is weaned off

Wean 0.5-1 mcg/kg/day until discontinued. Always use weight at initiation for dose decrease. If infant has rebound hypertension (defined as an increase of blood pressure >95th percentile of age-specific norms), or tachycardia (>200bpm), resume previous dose for 24 hours and attempt to wean again.

****Important note to consider**
Clonidine is an alpha-2 adrenergic agonist, therefore can cause hypotension (defined as blood pressure below the 5th percentile) and bradycardia (<60bpm). Blood pressures and heart rates should be closely monitored at initiation and at any increase in dosing.

No published studies exist on the optimal outpatient weaning of clonidine, therefore we are **NOT** to discharge infants home on clonidine at this time.

If an infant has been exposed to multiple drug classes (including nicotine) and has significant CNS hyperirritability, i.e. the post-stimulus score consistently scores for irritability, oral phenobarbital may be added.

Starting with 10-20mg/kg/dose followed by 2-5mg/kg/day QD or divided BID to begin 24 hours later.

Serum phenobarbital levels are not monitored unless phenobarbital use is for the management of seizures. Increases in dose are not recommended as infants gain weight. Infants are allowed to outgrow the dose as symptoms wane, therefore infants **CAN** be discharged on phenobarbital. This is usually achieved over the first 6-8 weeks of life.

We recommend breastmilk feeding for babies undergoing NAS.
HIV+ is the only absolute contraindication to using breastmilk.
If breastmilk is of limited supply, particularly for moms on methadone/buprenorphine, divide available breastmilk evenly during a day's feeding mixing with formula to ensure infant receives some amount of breastmilk at each feeding.
Refer to AAP Clinical Report on "The Transfer of Drugs and Therapeutics into Human Breast Milk: An Update on Selected Topics" for guidance if you have any questions about safety of medications in breastmilk¹⁰.
LactMed
(<http://toxnet.nlm.nih.gov>) is another useful resource.