

Drugs Used for Neonatal Abstinence Syndrome

DRUG	DOSAGE	COMMENTS
<p>Tincture of opium (1 mL is added to 24 mL sterile water) Final concentration equal to 0.4 mg morphine sulfate</p>	<p>Starting dose is 0.4 mg PO in 6 to 8 divided doses. Dose should be increased by 0.04 mg/kg/day or 0.1 mL as needed as frequently as every 4 hours until control is achieved. Weaning: decrease infant's dose by 10% daily, or as tolerated until daily dose is 0.2 mg/kg/day; then discontinue.</p>	<p>Control is evidenced by an NAS average score <8, rhythmic feeding/sleep cycles, optimal weight gain, same opium dose for 72 hours, pharmacologic weaning. Continue to score for NAS. Scores must remain <8.</p>
<p>Morphine</p>	<p>0.08-0.2 mg/dose PO q 3-4 hr. Use a 0.4 mg/mL dilution: 1 mL of the 4 mg/mL injectable solution added to 9 mL preservative-free normal saline solution. Protect from light; stable for 7 days, refrigerated.</p>	<p>Advantages: Diminishes bowel motility and loose stools; 20% to 40% bioavailability when administered orally; lower doses and shorter dosing interval are associated with shorter hospital stays in infants with NAS resulting from maternal methadone treatment. Disadvantages: Respiratory depressant, hypotension, delayed gastric emptying, ileus, urine retention.</p>
<p>Phenobarbital</p>	<p>Loading dose: 20 mg/kg to achieve an expected therapeutic level in a single dose. If score is ≥ 8, give 10 mg/kg every 12 hours until control or signs of toxicity appear. Maintenance dose (once under control): 2-6 mg/kg/day for 3 to 4 days. Decrease dose to 3 mg/kg/day. Discontinue: serum levels <15 mcg/mL.</p>	<p>Daily serum levels can be obtained. Advantages: Drug of choice for polydrug use; especially effective in controlling irritability and insomnia; controls symptoms in 50% of infants. Disadvantages: Does not prevent loose stools. Infant should be in a nursery where he or she can be monitored closely.</p>

NAS, Neonatal abstinence syndrome; PO, by mouth.