Morphine ORAL
Newborn Use Only

2019

Alert	S8 – High-risk medication – may cause significant patient harm when used in error.
Indication	Analgesia/sedation: 1. During assisted ventilation 2. During procedures and post-surgery 3. Neonatal abstinence syndrome secondary to opioids 4. Analgesia and relief of dyspnoea including in context of palliative care
Action	Opioid analgesic − stimulates the μ-δ-opioid (Mu-Delta) receptor heteromer in the central nervous system. Modulates neurotransmitters.
Drug Type	Opioid analgesic.
Trade Name	Ordine (Morphine HYDROCHLORIDE).
Presentation	1 mg/mL oral solution of morphine HYDROCHLORIDE. Also commercially available as 2 mg/mL, 5 mg/mL and 10 mg/mL oral solution.
Dosage/Interval	**Neonatal abstinence syndrome secondary to maternal opioid dependency:** **Starting dose:** 0.5 mg/kg/day divided into 4–6 equal divided doses. • Increase dose by 10−25% titrated to Neonatal Abstinence Syndrome scores (aiming for scores < 8) and clinical condition. • Decrease dose by 10–25% every 2–4 days titrated to Neonatal Abstinence Syndrome scores (when scores ≤ 4) and clinical condition. **Neonatal abstinence syndrome secondary to infant opioid infusion:** • If weaning from prolonged intravenous morphine (> 4 days), commence oral morphine using the oral:IV ratio of 2:1 (estimated oral morphine bioavailability 48.5% in neonates) [1]. So the daily oral dose is twice the daily intravenous dose of morphine. • If weaning from intravenous fentanyl infusion, we recommend converting the total daily fentanyl dose into the equivalent intravenous morphine dose using the conversion ratio fentanyl:morphine of 1:10 (1 microgram of IV fentanyl is equivalent to 10 microgram of IV morphine) [21]. Convert the intravenous morphine dose to oral morphine dose using the ratio 1:2. That is, oral dose is twice the IV dose. **Analgesia** **Starting dose:** 0.05–0.2 mg/kg every 3–6 hours.
Maximum Daily Dose	1.3 mg/kg/day.
Route	Oral or intragastric.
Preparation/Dilution	Administer undiluted. However, if required, dilute dose with sterile water to obtain the required volume; ensure adequately mixed, administer immediately and discard any unused portion.
Administration	Oral. Preferably with feeds.
Monitoring	**Analgesia:** All patients should have cardiorespiratory monitoring and be carefully observed, particularly if they are breathing spontaneously. Respiratory depression/apnoea can be reversed with naloxone in opioid-naïve patients. **In infants with NAS secondary to maternal opioid dependency:** Observe for signs of respiratory and cardiac depression. Continuous cardiorespiratory monitoring is recommended if oral morphine dose is > 0.8 mg/kg/day or an additional sedative is used. Naloxone is contraindicated in opioid-dependent neonates. Respiratory depression/apnoea should be treated with supportive measures. Observe for urinary retention, abdominal distension or delay in passage of stool. Monitor Neonatal Abstinence Syndrome scores in opioid-dependent infants. Recommendations: • Commence treatment for infants with 3 scores averaging ≥ 8 or 2 scores averaging ≥ 12. • Increase treatment 10–25% if scores persistently ≥ 8 • Reduce treatment by 10–25% of the highest dose every 2–4 days if scores ≤ 4.
Contraindications	Hypersensitivity to morphine hydrochloride or any component.

Precautions	Opioid-naïve infants are at risk of cardiorespiratory depression, particularly if they are breathing spontaneously. Use with caution in patients with hypersensitivity reactions to other opioids. Hypotension and bradycardia. Transient hypertonia. Ileus and delayed gastric emptying time. Urinary retention. Tolerance may develop after prolonged use − wean slowly. Convulsions. Renal or hepatic impairment – affect metabolism and excretion.
Drug Interactions	Concomitant use with other CNS depressants potentiates effects of opioids, increasing risk of respiratory depression, profound sedation or coma.
Adverse Reactions	See Precautions.
Compatibility	N/A
Incompatibility	N/A
Stability	6 months once bottle opened.
Storage	Protect from light. Cool dry location (temp < 30°C). Store in Dangerous Drug (DD) safe and record use in DD register. Discard any diluted unused potion.
Special Comments	Prolonged use (> 5–7 days) may be associated with dependence.
Evidence summary	Refer to full version.
References	Refer to full version.

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