

MORPHINE HYDROCHLORIDE

Indication	<ul style="list-style-type: none"> • Management of neonatal abstinence syndrome (NAS)¹ secondary to: <ul style="list-style-type: none"> ○ Maternal opioid dependency ○ Infant opioid dependency • Management of symptoms at end of life (e.g. pain, dyspnoea) 	
ORAL	Presentation	<ul style="list-style-type: none"> • Oral solution 1 mg in 1 mL 2 mg in 1 mL 5 mg in 1 mL 10 mg in 1 mL
	Dosage	<ul style="list-style-type: none"> • NAS secondary to maternal opioid dependency <ul style="list-style-type: none"> ○ Commence at 0.125 mg/kg (125 microgram/kg) every 6 hours² ○ Titrate to NAS score as per Queensland Clinical Guideline: <i>Perinatal substance use: neonata^P</i> • NAS secondary to infant opioid dependency <ul style="list-style-type: none"> ○ Commence oral daily dose at twice the IV daily dose (ratio of 2:1) • Palliative care <ul style="list-style-type: none"> ○ Starting dose 0.05 mg/kg (50 microgram/kg) every 3–6 hours³ ○ Titrate to response
	Preparation	<ul style="list-style-type: none"> • Nil required • May dilute with water for injection to obtain required volume
	Administration	<ul style="list-style-type: none"> • Draw up prescribed dose into enteral/oral syringe • Oral/OGT/NGT
Special considerations	<ul style="list-style-type: none"> • S8 high risk medication. Errors may result in significant harm • If NAS secondary to maternal opioid dependency, refer to Queensland Clinical Guideline: <i>Perinatal substance use: neonata^P</i> • Oral to IV ratio is 2:1 (based on approximate oral morphine bioavailability of 48.5% in neonates)⁴ • Wean slowly following prolonged (5–7 days) use¹ If prescribed for palliative care, consult with Paediatric Palliative Care Team (1800 249 648) 	
Monitoring	<ul style="list-style-type: none"> • Level of sedation • Respiratory and cardiovascular status¹ • Abdominal distention and loss of bowel sounds¹ • If NAS, Finnegan score¹ and as per to Queensland Clinical Guideline: <i>Perinatal substance use: neonata^P</i> • If decreased urinary output, consider retention¹ 	
Compatibility	<ul style="list-style-type: none"> • Nil 	
Incompatibility	<ul style="list-style-type: none"> • Nil 	
Interactions	<ul style="list-style-type: none"> • Concomitant use with other CNS depressants potentiates effects of opioids⁵ • May alter metabolism of zidovudine⁵ • Propranolol increases acute CNS toxicity of morphine⁵ 	
Stability	<ul style="list-style-type: none"> • Store below 30°C. Do not refrigerate. Protect from light⁵ • Expiry date on packaging. Discard 6 months after opening⁵ 	
Side effects	<ul style="list-style-type: none"> • Circulatory: hypotension¹, bradycardia¹ • Digestive: decreased gut motility¹ • Integumentary: rash • Urinary: urinary retention¹ • Nervous: restlessness⁶, opioid dependence⁵, sedation⁵, convulsions⁵ • Respiratory: respiratory depression with larger doses⁶ 	
Actions	<ul style="list-style-type: none"> • Opioid analgesic that stimulates brain opioid receptors¹ • Naloxone is an opioid antagonist for reversal of overdose in the non-opioid dependent newborn. <ul style="list-style-type: none"> ○ Naloxone not for use in neonatal abstinence syndrome (NAS) ○ Avoid naloxone use in palliative care 	



Abbreviations	CNS: central nervous system, NAS: neonatal abstinence syndrome
Keywords	morphine, opioid, palliative care, NAS, neonatal abstinence syndrome, Finnegan Score, narcotic

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

References

1. IBM Micromedex®Neofax®. Morphine. In: IBM Micromedex® NeoFax®/Pediatrics (electronic version). IBM Watson Health, Greenwood Village, Colorado, USA. April 2019 [cited 2019 July 18]. Available from: <https://www.micromedexsolutions.com>.
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3. Children's Health Queensland Hospital and Health Service. A practical guide to palliative care in paediatrics. [Internet]. 2014 [cited 2019 November 07]. Available from: <https://www.childrens.health.qld.gov.au>.
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Document history

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