

# ACTIVE LEARNING TEMPLATE: Medication

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MORPHINE BRAND NAMES: AVINza, Duramorph, Embeda, Infumorph, MS Contin, Roxanol, Morphabond-ER REVIEW MODULE CHAPTER \_\_\_\_\_  
CATEGORY CLASS Therapeutic: Opioid analgesic Pharmacologic: Opioid agonist Schedule: II (controlled substance)

## PURPOSE OF MEDICATION

### Expected Pharmacological Action

Binds to opioid receptors in the CNS.  
Alters how the brain and spinal cord perceive and respond to pain.  
Produces CNS depression (sedation).

### Therapeutic Use

Decreases severity of pain.  
Also helps relieve symptoms of pulmonary edema.

### Complications

Respiratory: Respiratory depression, sleep apnea, hypoxemia  
CNS: Sedation, confusion, dizziness, euphoria, hallucinations, headache, unusual drowsiness  
Cardiovascular: Hypotension, bradycardia  
GI: Constipation, nausea, vomiting  
GU: Urinary retention  
Skin: Flushing, itching, sweating  
Endocrine: Adrenal insufficiency  
Other: Tolerance, physical dependence, withdrawal, opioid-induced hyperalgesia (increased pain sensitivity)

### Medication Administration

IV push: Administer slowly (over 5 min) to avoid hypotension and respiratory depression.  
Continuous IV infusion: Use an infusion pump; titrate for adequate pain relief without oversedation.  
Epidural: 2–4 mg/24 hr; preservative-free only.  
PO: May take with food or milk to reduce stomach upset; do not crush or chew extended-release tablets.  
Rectal: Insert suppository as directed.  
Taper gradually to discontinue — do not stop abruptly.  
Always verify dose and concentration carefully before administration.

### Contraindications/Precautions

Allergy/hypersensitivity, Significant respiratory depression (especially with extended-release), Acute or severe bronchial asthma (extended-release)  
Paralytic ileus (bowel blockage), Acute, mild, or intermittent pain (for extended-release forms)  
Use Cautiously In:  
Head trauma or increased intracranial pressure, Severe renal, hepatic, or pulmonary impairment, Hypothyroidism, adrenal insufficiency, seizure disorder, History of substance use disorder or mental illness  
Older adults (↑ risk for respiratory depression), Neonates and infants <3 months (risk for respiratory depression or "gaspings syndrome"), Breastfeeding (only if benefits outweigh risks)

### Nursing Interventions

Assess pain type, location, and intensity before and after giving (20 min after IV; 1 hr after PO).  
Monitor vital signs: respiratory rate, BP, HR, and LOC regular  
Hold dose if RR <12/min or patient is excessively sedated.  
Assess bowel function daily; provide stool softeners or laxatives as needed.  
Monitor for tolerance, dependence, or signs of withdrawal with long-term use.  
Observe for opioid-induced hyperalgesia (pain increases despite dose increase).  
Have naloxone available to reverse overdose if needed.  
Use preservative-free formulation for epidural or intrathecal routes.  
Double-check doses — morphine is a high-alert medication  
Use non-opioid pain relief (e.g., acetaminophen) along with morphine for additive effects if ordered.  
Taper gradually after long-term use to prevent withdrawal.

### Interactions

MAO inhibitors: May cause severe, unpredictable reactions (use 25% of usual dose)  
CNS depressants (alcohol, sedatives, antihistamines): ↑ risk of sedation and respiratory depression  
SSRIs, SNRIs, TCAs, Tramadol, Linezolid, Methylene blue: ↑ risk of serotonin syndrome  
Mixed agonist/antagonist opioids (butorphanol, nalbuphine, buprenorphine): May ↓ morphine's pain relief or cause withdrawal  
Warfarin: ↑ anticoagulant effects  
Cimetidine: ↑ morphine levels and toxicity  
IV morphine + clopidogrel/prasugrel/ticagrelor: ↓ antiplatelet effect  
Drug-Herbal:  
Kava, valerian, chamomile: ↑ CNS depression

### Client Education

Take exactly as prescribed; do not share medication with anyone.  
May cause drowsiness or dizziness; avoid driving or operating machinery until effects are known.  
Change positions slowly to avoid orthostatic hypotension.  
Avoid alcohol or other sedatives while taking morphine.  
Prevent constipation: Drink fluids, eat fiber, and use stool softeners/laxatives as directed.  
Report trouble breathing, extreme drowsiness, confusion, or inadequate pain relief to provider.  
Learn signs of respiratory depression and how to use naloxone (Narcan) if prescribed.  
Do not stop suddenly if used long term; taper off gradually under provider supervision.  
Store medication safely; it is high risk for abuse and overdose. Keep out of reach of children.

### Evaluation of Medication Effectiveness

Decrease in severity of pain without significant change in LOC or respiratory status  
Improved comfort and ability to rest or perform activities.  
Relief of pulmonary edema symptoms if used for that indication.  
Stable vital signs (no severe hypotension or bradycardia).