ACTIVE LEARNING TEMPLATE: Medication

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MEDICATION morphine sulfate (IVP) high alert (AVINza, Duramorph, Embeda, Infumorph, Mitigo, Mordnabond ER, MS contin, Roxanol) REVIEW MODULE CHAPTER dynamic health

CATEGORY CLASS opioid analgesics

PURPOSE OF MEDICATION

Expected Pharmacological Action

binds to opiate receptors in the CNS.
alters the perception of and response to painful stimuli while producing generalized CNS depression

Therapeutic Use

decrease pain (severity)

Complications

CV: hypotension
GI: constipation
Neuro: confusion, sedation
*Resp: respiratory depression (central sleep apnea and sleep-related hypoxemia)

Contraindications/Precautions

prostatic hyperplasia → enlarged prostate

C→ hypersensitivity, some products contain alcohol, significant respiratory depression, paralytic ileus (muscles of intestines stop working properly), acute or severe bronchial asthma; acute, mild, intermittent, or post-op pain (ER)

P→ history, head trauma, ↑intracranial pressure, severe renal impairment → kidney failure, severe hepatic impairment, hypothyroidism, adrenal insufficiency, seizure disorders, undiagnosed abdominal pain, prostatic hyperplasia, difficulty difficulty swallowing or GI disorders (↑risk for GI obstruction)

* hypothyroidism: underactive thyroid; adrenal insufficiency: adrenal glands don't produce enough hormones

Interactions (drug to drug)

anxiety, depression
pain (core and post management)
Opioid use disorder treatment

MAIO inhibitors: unpredictable reactions and ↓initial dose of oxycodone to 25% of usual dose
mixed agonist/antagonist analgesics: ↓ effects and/or bring opioid withdrawal in dependent patients
↑risk of serotonin syndrome: tricyclic antidepressants, SSRIs, SNRIs, MAO inhibitors, TCAs, tramadol, trazodone, mirtazapine, 5-HT3 receptor antagonists, linezolid, methylene blue, triptans
↑anticoagulant effect: warfarin
↑levels and risk of toxicity: cimetidine
(IV) ↓levels and antiplatelet effects of clopidogrel, prasugrel, ticagrelor
↑CNS depression: kava-kava, valerian, chamomile

Evaluation of Medication Effectiveness

decrease in severity of pain without a significant alteration in level of consciousness or respiratory status

Medication Administration

PO, Rect: ≥50kg 30mg Q 3-4hrs or once Q 24 hrs, total oral dose Q 24hrs (ER), 50% of total Q 12hrs, 33% total Q 8hrs, max: 1600mg/day
PO, Rect ≥50kg: 0.3-0.4mg/kg Q 12hr
IM, IV ≥50kg: 4-10mg Q 3-4hr, MI: 8-15mg severe pain, subcut small doses may be given Q 3-4hrs
IM, IV subcut <50kg: 0.05-0.2mg/kg Q 3-4hr, max: 15mg/dose
IV subcut: continuous infusion 0.8-10mg/hr, bolus of 15mg (infusion rate up to 80mg/hr)
IT: 0.2-1mg in preservative-free formulation
Epidural: IM 5mg/day, don't exceed 10mg/day; continuous infusion 2-4mg/24hr (may ↑ 1-2mg/day up to 30mg/day)

Nursing Interventions

- do not confuse medications
- explain medication before administering
- PO → may be administered with food or milk to minimize GI irritation
- discontinued gradually after long-term use to prevent withdrawal symptoms; long-acting agents who are dependent (lower to no greater than 10% to 25% of daily dose every 2-4 wk)
- ER→ do not crush, chew, break
- discuss availability of naloxone

Client Education

- explain purpose and side effects
- advise that it is a drug with known abuse potential
- recognize respiratory depression and call 911 (naloxone availability)
  - ↳ reverse opioid overdose
- contact provider if pain still
- avoid alcohol or other CNS depressants
- encourage to turn, cough, and breathe deeply every 2 hr to prevent atelectasis (collapse of lung)
- advise good oral hygiene (dry mouth)
- change positions slowly to minimize hypertension
- emphasize the importance of prevention of constipation
- can cause drowsiness or dizziness