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Sustainable Healthcare Transformation

Opioid Medication Dictionary

Special Considerations:

- Acute postoperative pain should be treated with oral opioids whenever tolerated. ER/LA opioid formulations should only be used in patients with chronic pain, and not for acute postoperative pain.[5]
- Consider prescribing naloxone for patients prescribed opioids at discharge. Especially for patients with factors associated with an increased risk for overdose, such as history of overdose or substance use disorder, patients with sleep-disordered breathing, higher opioid dosages (≥50 morphine milligram equivalents [MME]/day orally), and/or concomitant benzodiazepine use.[9]

Evidence:

- When managing opioid-naïve patients, it is recommended that the use of perioperative opioids cease as soon as possible after surgery, as every additional day of opioid use may increase the likelihood of chronic opioid use.[6]
- Higher doses of opioids are associated with a higher incidence of ORADEs, particularly overdose, in both inpatient and outpatient settings.[7]

Medication	Intraoperative Dosing	Postoperative Dosing	Discharge Dosing	Special Considerations
Fentanyl	**Preinduction: IV:** 25 mcg; may repeat in increments of 25 mcg (typical total dose is ≤100 mcg) to provide pain relief or if patient requires a regional anesthesia procedure before surgery[1] **Induction: IV:** 25 to 100 mcg (or 0.5 to 1 mcg/kg)[1] **Intermittent: IV:** 25 to 50 mcg bolus	**Postoperative recovery/Postanesthesia care unit (i.e., immediate postoperative period):** **IV:** 25 to 50 mcg every 5 minutes (moderate pain) or 50 to 100 mcg every 2 to 5 minutes (severe pain) until pain is relieved or unwanted side effects appear[1] **PCA Dosing for Opioid Naive**	Not routinely prescribed for acute postoperative pain after discharge, unless the patient was taking for chronic pain prior to surgery.	**Advantages:** ●Rapid onset (three to five minutes). ●High potency (100 times compared with morphine). ●Effective analgesia for surgical trauma causing severe pain during the intraoperative or immediate postoperative period, due to a prolonged duration of action. ●Minimal effect on myocardial or hemodynamic function. ●Absence of histamine-releasing properties; thus, fentanyl is appropriate

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	as needed[1] **Continuous infusion: IV:** 1 to 2 mcg/kg/hour as supplement to total IV anesthesia (TIVA) when controlled postoperative ventilation is planned[1] **Neuraxial analgesia:** **Epidural:** **Single dose:** 25 to 100 mcg; may provide adequate relief for up to 8 hours. May repeat with additional 100 mcg boluses on demand or alternatively may administer by a continuous infusion. **Continuous infusion:** 25 to 100 mcg/hour (fentanyl alone). When combined with a local anesthetic (e.g., bupivacaine), fentanyl requirement is less[1] **Intrathecal:** **Single dose:** 15 to 25 mcg; may provide adequate relief for up to 6 hours. When combined with a local anesthetic (e.g., bupivacaine), fentanyl dose requirement is less	**Patients:** **Usual concentration:** 10 mcg/mL **Bolus:** 25-50mcg **Patient activated dose:** Range 5-20 mcg **Lockout interval:** 5-10 min **4-hour limit (opiate naive):** 3mcg/kg or max 300 mcg **Continuous** (basal- rarely used): 10-50mcg/hr[1] **Neuraxial analgesia:** **Epidural:** **Single dose:** 25 to 100 mcg; may provide adequate relief for up to 8 hours. May repeat with additional 100 mcg boluses on demand or alternatively may administer by a continuous infusion. **Continuous infusion:** 25 to 100 mcg/hour (fentanyl alone). When combined with a local anesthetic (eg, bupivacaine), fentanyl requirement is less[1] **Intrathecal:** **Single dose:** 15 to 25 mcg; may		for patients with bronchospasm.[2] **Disadvantages:** ●Prolonged context-sensitive half-time when administered as an infusion. For example, after infusion of fentanyl for 200 minutes, approximately 200 more minutes are necessary to achieve a 50 percent decrease in its effect-site concentration. Thus, emergence from general anesthesia may be delayed after a fentanyl infusion. Avoid a fentanyl infusion for surgical cases of short or intermediate duration. ●Brief self-limiting coughing that occasionally occurs after bolus dosing[2] Perioperative fentanyl administration is associated with decreased new chronic pain diagnoses at 3 months, decreased opioid prescriptions at 30, 90, and 180 days, and decreased new persistent opioid use, without significant increases in adverse effects.[3]

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	(e.g., 10 to 15 mcg instead of 15 to 25 mcg)[1]	provide adequate relief for up to 6 hours. When combined with a local anesthetic (e.g., bupivacaine), fentanyl dose requirement is less (e.g., 10 to 15 mcg instead of 15 to 25 mcg)[1]		
Hydrocodone	*N/A*	**PO:** 5-10/325 mg IR every 6 hours PRN[4]		IR hydrocodone is only available in combination with APAP - counsel patients on daily APAP limits if combining with OTC products
Hydromorphone	*N/A*	**PO**: 2-4 mg IR every 4 hours PRN[8] **IV**: 0.5 mg IV every 2 hours PRN (for pain not controlled by PO, or NPO)[8] **PCA Dosing:** **Usual concentration:** 0.2 mg/mL **Bolus:** 0.1-0.5mg **Patient activated dose:** 0.05-0.5mg, usual 0.1-0.3mg **Lockout interval:** 10-20 min **4 hr limit (opiate naive):** 0.06mg/kg or max 6mg **Continuous** (basal- optional): 0.1-0.5mg/hr[8]	**PO**: 2-4 mg IR every 4 hours PRN[8]	Caution and dose adjust in patients with renal dysfunction[8-9]

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Morphine	**Neuraxial analgesia:** **Epidural:** Single dose (using 0.5 or 1 mg/mL preservative-free solution): Opioid-naive patients: Usual range: 2.5 to 3.75 mg. **Continuous infusion (using 0.5 or 1 mg/mL preservative-free solution):** Opioid-naive patients: 0.2 to 0.4 mg/hour. **Continuous microinfusion** (using a device intended for continuous microinfusion): Note: Must use a 10 or 25 mg/mL preservative-free solution (e.g., Infumorph); dilution may be required. Initial: 3 to 7.5 mg over 24 hours.[10] **Intrathecal:** **Single dose** (using 0.5 or 1 mg/mL preservative-free solution): Usual range: 0.1 to 0.3 mg coadministered with a local anesthetic **Continuous microinfusion** (using a device intended for continuous microinfusion): Note: Must use a 10 or 25 mg/mL preservative-free solution (e.g., Infumorph); dilution	**PO:** 5-15 mg IR every 4-6 hours PRN[10] **IV:** 1-4 mg every 4 hours PRN (for pain not controlled by PO opioids or NPO)[10] **PCA Dosing:** **Usual concentration:** 1mg/mL **Bolus:** 1-5mg (usual 5mg) **Patient activated dose:** 0.5-2mg (usual 1mg) **Lockout interval:** 10-20 min **4 hour limit (opiate naive):** 0.3mg/kg or max 30mg **Continuous** (basal-optional): 0.5-2mg/hr[10] **Neuraxial analgesia:** **Epidural:** Single dose (using 0.5 or 1 mg/mL preservative-free solution): Opioid-naive patients: Usual range: 2.5 to 3.75 mg. **Continuous infusion (using 0.5 or 1 mg/mL preservative-free solution):** Opioid-naive patients: 0.2 to 0.4	**PO:** 5-15 mg IR every 4-6 hours PRN[10]	

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	may be required. **Initial:** 0.2 to 1 mg over 24 hours.[10]	mg/hour. **Continuous microinfusion** (using a device intended for continuous microinfusion): Note: Must use a 10 or 25 mg/mL preservative-free solution (eg, Infumorph); dilution may be required. Initial: 3 to 7.5 mg over 24 hours.[10] **Intrathecal:** **Single dose** (using 0.5 or 1 mg/mL preservative-free solution): Usual range: 0.1 to 0.3 mg coadministered with a local anesthetic **Continuous microinfusion** (using a device intended for continuous microinfusion): Note: Must use a 10 or 25 mg/mL preservative-free solution (eg, Infumorph); dilution may be required. **Initial:** 0.2 to 1 mg over 24 hours.[10]		
Oxycodone	*N/A*	**PO:** 5-10 mg IR every 6 hours PRN[11]		If prescribing combination with APAP - counsel patients on daily APAP limits if combining with OTC products
Tapentadol	*N/A*	**PO:** 50-100 mg IR every 6 hours PRN[12]		Often cost prohibitive, may require a prior authorization

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Tramadol	*N/A*	**PO:** 50-100 mg IR every 6 hours PRN[13]		If prescribing combination with APAP - counsel patients on daily APAP limits if combining with OTC products Caution when combining with serotonergic agents[13]

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