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Acute Opioid Prescribing Safety Guideline for Opioid-Naïve Patients

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Last guideline approval: August 2021

Guidelines are systematically developed statements to assist patients and providers in choosing appropriate health care for specific clinical conditions. While guidelines are useful aids to assist providers in determining appropriate practices for many patients with specific clinical problems or prevention issues, guidelines are not meant to replace the clinical judgment of the individual provider or establish a standard of care. The recommendations contained in the guidelines may not be appropriate for use in all circumstances. The inclusion of a recommendation in a guideline does not imply coverage. A decision to adopt any particular recommendation must be made by the provider in light of the circumstances presented by the individual patient.

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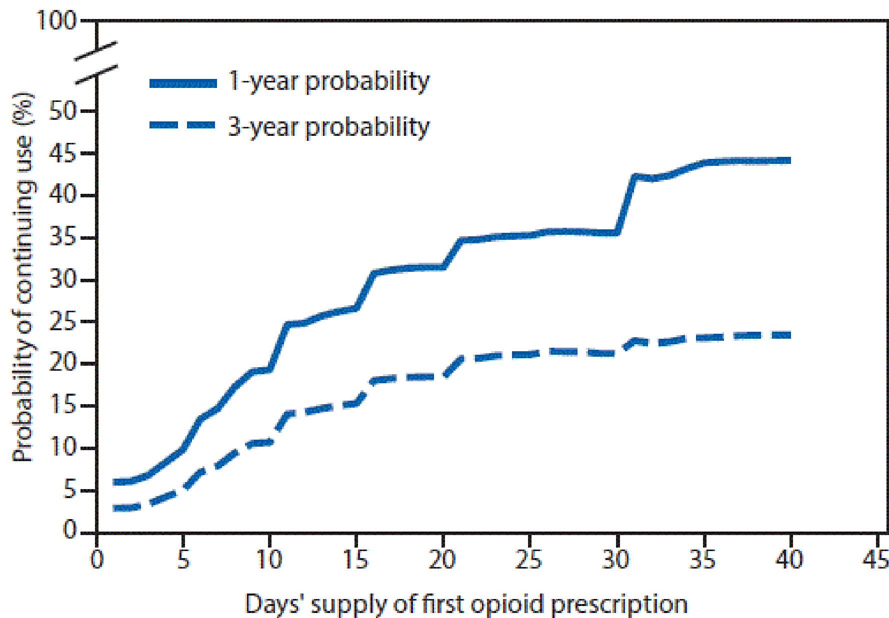
Background

- Between 5% and 10% of opioid-naïve patients are still taking chronic opioids months to years after being prescribed opioids for postoperative pain.
- Duration of the initial prescription is a significant predictor for continued opioid use. Compared to patients prescribed opioids for 2 days or less, patients initially prescribed 5–7 days of opioids are twice as likely—and patients initially prescribed 11–14 days of opioids are three times as likely—to continue opioid therapy.
- This graph from the CDC shows that the probability of continued opioid use/dependency in opioid-naïve patients spikes with prescriptions for 4–5 days (Shah 2017; view article):



This guideline was developed to decrease excess prescribing of opioids for acute pain in opioid-naïve patients**. Opioid-naïve patients are those who have had ≤ 7-day supply of opioids within the previous 90 days.**

Specific goals include:

- Improving patient safety by reducing the risk of overdose, physiologic dependence, and opioid use disorder (OUD)
- Decreasing the number of postoperative patients who transition from short-term to chronic opioid therapy
- Reducing potential drug diversion and improving community safety

Scope

Acute opioid prescribing for pain following:

- Surgery
- Dental procedures
- Minor procedures
- Injuries

Populations included in this guideline:

- Children, adolescents, adults, elderly patients (> 65 years)
- Pregnant patients (post-delivery pain)
- Patients at increased risk of respiratory depression
- Patients with alcohol use disorder

Excluded from this guideline:

- Patients in hospice and palliative care
- Patients undergoing active cancer treatment
- Chronic opioid prescribing (beyond 6 weeks. See "Preventing Conversion from Acute to Chronic Opioid Therapy" in KPWA COT Safety Guideline.)
- Patients with acute flare-up of chronic pain (e.g., fibromyalgia, sickle cell anemia)

Expectations and Legal/Regulatory Requirements

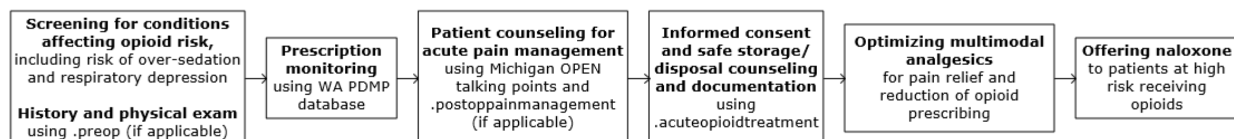
When opioids are used for acute pain, clinicians should**:**

- **Prescribe the lowest effective dose of immediate-release opioids** (avoiding long-acting opioids), and
- **Prescribe a quantity no greater than that needed for the expected duration of pain severe enough to require opioids.** Three days or less will often be sufficient; more than 7 days will rarely be needed.

This guideline is in compliance with KP National Acute Prescribing guidance, the State of Washington regulations WAC 246-919-865 on the use of opioids in the treatment of patients with chronic non-cancer pain, and the 2018 Washington State Opioid Prescribing Requirements for Advanced Registered Nurse Practitioners.

Required Steps for Acute Opioid Prescribing

The following steps are **required** before opioids can be prescribed for acute pain (see WAC 246-919-865).



1. **Screen for medical issues** that affect opioid risk (e.g., pulmonary, cardiac, renal or hepatic disease). Assess risk for potential opioid over-sedation and/or respiratory depression (COPD, OSA, AUD).

   Conduct a **history and physical exam** including past and current use of, response to, and preferences for analgesics. See History and Physical and Pre-surgical Assessment/Update policy. Use the SmartPhrase **.preop** if applicable.

2. **Check the patient's record in the Washington State Prescription Drug Monitoring Program** (PDMP) database **every time** controlled substances are prescribed to determine whether the patient is receiving opioid dosages or dangerous combinations that put them at high risk.

3. **Discuss acute pain management with the patient.** Consider use of the **Michigan OPEN patient counseling talking points** and the SmartPhrase **.postoppainmanagement** (if applicable).

4. **Obtain informed consent and provide guidance on safe opioid storage and disposal;** use the SmartPhrase **.acuteopioidtreatment** to document both**.** Remind patients of the **dangers of prescription opioid diversion** and the importance of **secure storage** and **safe disposal** of their

medications. Note that sharing medications with others is never appropriate and is illegal. Instruct the patient and family on prompt disposal of controlled substances either through a DEA-approved take-back program or the FDA guidance for safe disposal of medicine.

5. **Optimize multimodal analgesics**, defined as the administration of two or more drugs that act by different mechanisms to improve pain relief while reducing opioid prescribing:
   - Ibuprofen 400–600 mg every 6 hours (Avoid in patients with renal impairment, cardiovascular disease, history of GI bleed, on anticoagulants.)
   - Acetaminophen 325–500 mg every 6 hours (Avoid in patients with advanced liver disease; use caution when ordering acetaminophen-containing products.)
   - Recommend staggering ibuprofen and acetaminophen so the patient gets a dose every 3 hours.

6. **Offer naloxone** if the patient is at increased risk for respiratory depression or overdose. See "Patients at increased risk of respiratory depression or overdose," page g10.

Acute Opioid Prescribing Best Practices

All required steps for acute opioid prescribing must be followed. See page 3.

Preferentially prescribe nonopioid analgesic therapies (non-pharmacologic and pharmacologic) rather than opioids as the initial treatment of **acute pain.** Encourage non-pharmacologic therapies such as ice, elevation, and physical therapy where appropriate as an adjunct to multimodal analgesics.

If opioid medications are deemed necessary, prescribe the lowest effective dose of a short-acting opioid for the shortest time indicated.

- For patients who are expected to have more than a 5-day course of opioids, opioid assessment and risk stratification is recommended. For surgical patients, use documentation SmartPhrase **.preop,** which has all of the recommended assessments and anticipatory guidance counseling points. Note that preoperative guidance may occur (and be documented) prior to the day of surgery.
- Short-acting opioids should not be routinely prescribed for more than 3–5 days.
- Long-acting opioids such as fentanyl should not be prescribed to opioid-naïve patients.
- Do not routinely prescribe, or knowingly cause to be co-prescribed, a simultaneous course of **opioids and benzodiazepines** or other muscle relaxants/sedative-hypnotics for treatment of acute pain.
- To decrease the potential for liver injury, special caution should be taken when prescribing combinations of acetaminophen-oxycodone and acetaminophen-hydrocodone so as to not exceed the maximum daily dose of acetaminophen. (See FDA safety announcement.)
- Educate patients on potential side effects, overdose risks, and developing dependence to opioids.

For more detailed information, see

- Emergency medicine: https://michigan-open.org/resource/acute-care-opioid-treatment-and-prescribing-recommendations-emergency-department/ and https://www.acep.org/patient-care/clinical-policies/opioids/
- Surgery: https://michigan-open.org/resource/acute-care-opioid-treatment-and-prescribing-recommendations-surgical-department/ and http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf

Surgical Settings

See https://michigan-open.org/resource/acute-care-opioid-treatment-and-prescribing-recommendations-surgical-department/ and http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf for more detailed information.

Evidence-based duration of opioid prescriptions on discharge following surgery

General guidance on the use of acute opioids post-surgery is provided below, based on the speed of expected recovery. This guidance was adopted from the Michigan Opioid Prescribing Engagement Network (OPEN) available from https://www.opioidprescribing.info/

Expected recovery	Procedure type	Recommendation
Rapid	Dental procedures such as extractions or simple oral surgery (e.g., graft, implant). Procedures such as laparoscopic appendectomy, inguinal hernia repair, carpal tunnel release, thyroidectomy, laparoscopic cholecystectomy, breast biopsy/lumpectomy, meniscectomy, lymph node biopsy, vaginal hysterectomy.	• **Opioids are generally not necessary.** Prescribe non-steroidal anti-inflammatory drug or combination of NSAID and acetaminophen as first line. • If opioids are necessary, prescribe ≤ 3 days of short-acting opioid for severe pain. • Prescribe the lowest effective dose strength.
Medium	Procedures such as anterior cruciate ligament (ACL) repair, rotator cuff repair, discectomy, laminectomy, open or laparoscopic colectomy, open incisional hernia repair, open small bowel resection or enterolysis, wide local excision, laparoscopic hysterectomy, simple mastectomy, cesarean section.	• Prescribe non-steroidal anti-inflammatory drug or combination of NSAID and acetaminophen as first line. • **Prescribe 3–5 days of short-acting opioid for severe pain.** Prescribe the lowest effective dose strength. • If longer course of opioid therapy is needed, should avoid more than 7 day supply total.
Slow	Procedures such as lumbar fusion, knee replacement, hip replacement, abdominal hysterectomy, axillary lymph node resection, modified radical mastectomy, ileostomy/colostomy creation or closure, thoracotomy.	• Prescribe non-steroidal anti-inflammatory drug or combination of NSAID and acetaminophen as first line. • **Limit initial prescription to ≤5 days and follow-up after prescription is completed.** Prescribe the lowest effective dose strength. • If longer course of opioid therapy is needed, should avoid more than 14 day supply total to decrease the risk of serious side effects and long-term dependence.

Opioid prescribing recommendations by surgery type

This guidance was adopted from the Michigan Opioid Prescribing Engagement Network (OPEN), available from https://www.opioidprescribing.info/

ADULTS (19 YEARS AND OLDER)

Recommended number of tablets by surgical procedure: ADULTS (19 YEARS AND OLDER)	
Procedure	**Oxycodone 5 mg tablets**
Laparoscopic cholecystectomy	0–10
Open cholecystectomy	0–15
Appendectomy - laparoscopic or open	0–10
Open appendectomy	0–10
Hernia repair - major or minor	0–10
Colectomy - laparoscopic	0–10
Colectomy - laparoscopic or open	0–15
Ileostomy/colostomy creation, re-siting, or closure	0–15
Open small bowel resection or enterolysis	0–15
Thyroidectomy	0–5
Sleeve gastrectomy	0–10
Prostatectomy	0–10
Laparoscopic anti-reflux (Nissen)	0–10
Laparoscopic donor nephrectomy	0–10
Cardiac surgery via median sternotomy	0–25
Hysterectomy - vaginal, laparoscopic	0–15
Hysterectomy - abdominal	0–20
Cesarean section	0–20
Breast biopsy or lumpectomy	0–5
Lumpectomy + sentinel lymph node biopsy	0–5
Sentinel lymph node biopsy only	0–5
Wide local excision ± sentinel lymph node biopsy	0–20
Simple mastectomy ± sentinel lymph node biopsy	0–20
Modified radical mastectomy or axillary lymph node dissection	0–30
Carotid endarterectomy	0–10
Total hip arthroplasty	0–30
Total knee arthroplasty	0–50
Dental	0

AGES 18 AND YOUNGER

Recommended number of tablets by surgical procedure: AGES 18 AND YOUNGER	
Procedure	**Oxycodone 5 mg tablets**
Dental extraction	0
Adenoidectomy	0
Appendectomy	0
Inguinal hernia	0
Umbilical hernia repair	0
Circumcision (consider 0 for age ≤ 5 years)	0–5
Orchiopexy	0–5
Supracondylar humerus fracture	0–5

After Common Office Procedures

Opioid pain management is generally **not** recommended for the following procedures in adults aged 19 years and older, based on the expert opinion of physicians in general surgery, emergency medicine, women's health, and primary care.

- Incision and drainage
- Cyst or lipoma removal
- Hemorrhoid banding
- Port removal
- Hemodialysis catheter removal
- IUD removal with cervical dilation and operative intervention
- Nexplanon placement or removal
- Endometrial biopsy
- Colposcopy/cervical biopsy
- Diagnostic hysteroscopy
- Laceration repair
- Abscess incision and drainage
- Paracentesis
- Thoracentesis
- Foreign body removal skin
- Foreign body removal orifices
- Trephination
- Lumbar puncture
- Epistaxis/nasal packing

Recommended number of tablets by office procedure: ADULTS (19 YEARS AND OLDER)

- ➢ Recommendation for short-acting opioids only. Data shows opioid-naïve patients tend to take fewer pills than patients with chronic pain issues.
- ➢ Consider close follow-up with primary care and/or specialists for further prescribing as indicated.

Procedure	Oxycodone 5 mg tablets
Long bone fractures/reductions	0–15 (3-day)
Dislocation reductions	0–8 (1- to 2-day)
Foreign body eye/corneal abrasions	0–4 (1 day)
Peritonsillar abscess drainage, aspiration	0–8 (1- to 2-day)
Dental fracture repair	0–8 (1- to 2-day)

Special Populations

Children

Recommendations for postoperative opioid prescribing in children:

- Do not prescribe opioids with benzodiazepines except in children for whom there is a specific indication and alternative treatment options are inadequate.
- **Codeine** (including cough syrup) and **tramadol** should **NOT** be used in children due to the risk of sedation and death.
  - Both medications are contraindicated in children younger than 12.
  - Tramadol is contraindicated after tonsillectomy and after adenoidectomy in children under 18.
  - FDA also issued a warning against the use of both drugs in patients ages 12 to 18 who have sleep apnea, severe lung disease, and/or obesity.
  - See this FDA Drug Safety Communication for more information.

- If opioids are needed when treating children for moderate to severe pain, options are morphine or oxycodone.
- In children with OSA, obesity, and recurrent nighttime oxygen desaturations, opioid dosing should be based on **ideal body weight** rather than current weight, and then reduced by 50% to 67%, and respiratory monitoring should be extended.

Patients over age 65

Recommendations for people over age 65 (Beers Criteria):

- Avoid meperidine due to the risk of seizures and delirium.
- Avoid combination of opioids and benzodiazepines due to increased risk of overdose.
- Avoid combination of opioids and gabapentin/pregabalin due to increased risk of severe sedation-related adverse events, including respiratory depression and death.

Pregnant patients (postdelivery pain management)

Source: 2019 Society for Maternal-Fetal Medicine.

- Pain management **after cesarean delivery** among opioid-naïve patients:
  - Short course of **oxycodone** (maximum daily dose, 30 mg or 6 5-mg tablets) as needed if pain is poorly controlled with scheduled NSAIDs and acetaminophen alone. Pain is considered poorly controlled when it is interfering with the patient's ability to mobilize, breastfeed, or otherwise care for the baby, or when the patient reports being unable to cope with the pain.
  - If patients **are *not* taking opioids** in the hospital, do not prescribe them at the time of discharge.
  - If patients **are taking opioids** in the hospital, engage in a shared decision-making process to select the number of opioid tablets to be prescribed (but no more than the equivalent of 20 5-mg tablets of oxycodone). Information should be provided regarding the expected duration of pain, risks, and benefits of opioids and alternatives to opioids. Rather than prescribing the same quantity of opioids for all patients after cesarean delivery, patients should be allowed to choose to be prescribed a smaller amount.

- **Severe pain after vaginal delivery is unusual** and should prompt an evaluation for unrecognized complications. Opioids are rarely needed unless pain is severe and is not adequately controlled with NSAIDS and acetaminophen alone.

- Note: Breastfeeding mothers should not take **codeine** or **tramadol** due to the risk of serious adverse reactions in breastfed infants, including excess sleepiness, difficulty breastfeeding, or serious breathing problems that could result in death. See this FDA Drug Safety Communication.

Patients at increased risk of respiratory depression or overdose

For all patients, it is essential to conduct a history and physical exam including screening for medical issues that affect opioid risk prior to prescribing any opioids. All patients at high risk of respiratory depression or overdose should be sent home with Narcan and education for caregivers (use **.avsnaloxone**).

The factors that increase the risk of respiratory depression or overdose include (AMDG 2015):

- Sleep apnea or high-risk sleep disorder (morbid obesity/history of snoring/positive STOP Bang score ≥ 4)
- Age (< 1 year and > 65 years)
- History of over-sedation with opioids
- Opioid analgesic tolerance or increased opioid dose requirement
- Concurrent use of other sedating drugs (e.g., benzodiazepines, antihistamines, sedative/anxiolytics or other CNS depressants)
- History of difficult-to-control postoperative pain
- Long (> 6 hours) duration of general anesthesia
- Surgery location and/or type (e.g., airway, upper abdominal, thoracic, scoliosis repair in children)
- Medical comorbidities (e.g., pulmonary disease/smoker, cardiac disease, other major organ failures)

Patients who may also be at high risk include those who have difficulty accessing emergency medical services, or lack of a caregiver. For these patients, increased post-surgical monitoring may be needed, possibly including brief hospitalization.

For all patients, risks can be reduced by using the lowest dose of opioid for the shortest time possible.

Patients with alcohol use disorder

There is no safe level of alcohol with opioids. Avoid prescribing opioids in patients who don’t agree to abstain from alcohol while taking opioids or who are currently intoxicated at the time of their visit.

Patients with substance use disorders

Ordering opioids for patients with substance use disorders (active or in remission), or a family history of substance use disorders should be avoided due high risk of overdose or return to use.

- Patients with a family history of substance use disorders are at increased risk for developing substance use disorders.
- Patients with active substance use disorders are at higher risk for overdose.
- Patients with a substance use disorder in remission are at increased risk for overdose and for returning to active use.
- See Addiction and Recovery Services Practice Resources, Perioperative Buprenorphine Management for more information on acute pain management in patients taking buprenorphine.

Evidence Summary

The Acute Opioid Prescribing Guideline was developed using an evidence-based process, including systematic literature search, critical appraisal, and evidence synthesis.

As part of our improvement process, the Kaiser Permanente Washington guideline team is working towards developing new clinical guidelines and updating the current guidelines every 2–3 years. To achieve this goal, we are adapting evidence-based recommendations from high-quality national and international external guidelines, if available and appropriate. The external guidelines should meet several quality standards to be considered for adaptation. They must: be developed by a multidisciplinary team with no or minimal conflicts of interest; be evidence-based; address a population that is reasonably similar to our population; and be transparent about the frequency of updates and the date the current version was completed.

In addition to identifying the recently published guidelines that meet the above standards, a literature search was conducted to identify studies relevant to the key questions that are not addressed by the external guidelines.

External guidelines eligible for adapting

- 2020 Michigan Opioid Prescribing Engagement Network (OPEN). Opioid Prescribing Recommendations.
- 2015 Washington State Agency Medical Directors Group (AMDG). Interagency Guideline on Prescribing Opioids for Pain.
- 2017 Washington State Agency Medical Directors Group (AMDG) and Bree Collaborative. Dental Guideline on Prescribing Opioids for Acute Pain Management.
- 2018 Washington State Agency Medical Directors Group (AMDG) and Bree Collaborative. Prescribing Opioids for Postoperative Pain – Supplemental Guidance.
- 2019 National Permanente Medical Group. Clinical Practice Recommendations for Opioid Prescribing.
- 2016 Centers for Disease Control and Prevention (CDC). CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016.
- 2020 American College of Emergency Physicians. Clinical Policies: Opioids (Jun 2020).
- 2019 Society for Maternal-Fetal Medicine. Substance Use Disorders in Pregnancy Special Report.
- 2019 American Geriatrics Society Beers Criteria® Update Expert Panel. American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults.

Key questions

1. What is the appropriate quantity of opioids:
    - For each category of surgery?
    - In outpatient acute pain settings (UC/ER)?
    - Following hospital discharge?
2. Which opioid preparations should be avoided in children/teens, patients over 65, and people with chronic conditions that increase risk of respiratory depression (AUD, COPD, sleep apnea)? What are the harms of specific opioids for these populations? What are the opioids of choice in these populations?
3. In opioid-naïve patients receiving postoperative opioids (acute prescribing), what are the factors/predictors of overdose and opioid use disorder?
4. What steps can be taken to reduce the risk of overdose and opioid use disorder?
5. What are risks of diversion in acute prescribing?
6. What steps can be taken to avoid diversion in acute prescribing?

Reference

Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. *MMWR Morb Mortal Wkly Rep.* 2017;66:265-269. DOI: http://dx.doi.org/10.15585/mmwr.mm6610a1

Development Process/Team

Development process

This guideline was adapted from externally developed evidence-based guidelines and organizations that establish the community standards for opioid use disorder management. The guideline team reviewed additional evidence using an evidence-based process, including systematic literature search, critical appraisal, and evidence synthesis.

This edition of the guideline was approved for publication by the Guideline Oversight Group in August 2021.

Team

The following specialties were represented on the development team: addiction and recovery services, anesthesiology, family medicine, hospitalist, otolaryngology, pediatrics, patient safety, pharmacy, rheumatology, surgery, and urgent care.

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