EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Best Practice Summary

Opioid Prescribing Guidelines and Reducing Opioid Adverse Drug Events

March 2022

General considerations[1,2]

- All patients should be screened and assessed for prior opioid history and sensitivity.
- Consider a multi-modal and stepwise approach to pain management.
- Opioids should NOT be the first option for pain control.
- Consider pharmacological alternatives such as anti-inflammatory drugs/acetaminophen, neuropathic agents, muscle relaxers, selective serotonin reuptake inhibitors/tricyclics or local anesthetic.
- Consider non-pharmacological alternatives such as physical therapy, dry needling, aromatherapy, acupuncture, exercise, yoga/Tai Chi, music therapy, massage therapy or cognitive behavioral therapy.
- Pain management should be built on functional goals, not only pain management scales.
- Use a stepwise approach to prescribing (see page 41 of the *Reducing Adverse Drug Events Related to Opioids Implementation Guide*).

High-risk patients for opioids may suffer from:

- obesity;
- chronic pain;
- pulmonary disease;
- major mental illness;
- cardiac disease;
- being elderly;
- renal disease;
- substance abuse;
- hepatic disease; or
- obstructive sleep apnea (STOP BANG assessment).

Prescribing best practices[3]

- Assess the patient's opioid naïve vs tolerant status.
- Co-prescribe naloxone with opioids.
- Avoid co-prescribing opioids and benzodiazepines.
- Avoid prescribing more than one opioid at a time.
- Include pharmacology of opioids in the decision-making process.
- If still requiring opioids at discharge, limit the amount of pills prescribed.
- Avoid the exclusive use of opioids for pain management.
- Use electronic health record decision support where possible.

[1] Jared, Matthew, "Opioid Prescribing Guidelines and Best Practices," EQIC Webinar, Sept. 28, 2021
[2] Jared, Matthew, "Opioid Adverse Drug Events, Pain Management and Opioid Alternatives, EQIC Webinar, Oct. 26, 2021
[3] Jared, "Opioid Prescribing Guidelines and Best Practices"

For the opioid naïve patient

- Use oral opioids after non-pharmacologic options.
- Avoid patient-controlled analgesia pump delivery of opioids.
- Wean opioid naïve patients more quickly.

For the opioid tolerant patient

- If switching opioids or switching to IV, start at a 30% to 50% equianalgesic dose.
- With a surgery or new injury, the patient may need a higher dose briefly.
- Confirm home dosage and what is actually being taken. Continue if the patient is not at risk and can take oral medications.

Opioid selection

- Understanding the pharmacology of each medication, metabolism and interactions with chronic diseases is necessary to pick individual medication.
- Opioid prescribing should be tailored to each individual patient.

Dosing considerations[4]

- Always start with the lowest effective dose.
- Reassess the patient's opioid tolerance and adjust doses accordingly (opioid tolerant patients may require increased doses).
- Review daily morphine milligram equivalent targets. Daily maximum is 90 MME; 50-90 MME is the recommended target.
- Include PCA safety considerations.
- Consider multi-modal therapy to enhance pain management.
- Use a breakthrough or one-time dose for special indications.

Administration[5]

- Confirm patient, dose and indication. Avoid giving IV and oral doses for same indication.
- Reassess medication effectiveness: IV route evaluated within 30 to 45 minutes, oral route within one hour.
- Recognize indicators for opioid use disorder (e.g., setting alarms, frequent requests for additional doses, cheeking or chewing pill).

[4] Jared, "Opioid Prescribing Guidelines and Best Practices"
[5] Jared, "Opioid Prescribing Guidelines and Best Practices"

Tapering and weaning[6]

Consider opioid tapering if:

- there is no clinically meaningful response to opioid treatment;
- patient requests to cut back;
- using doses greater than 50 to 90 MME daily;
- patient is showing signs of OUD;
- DSM V criteria is met;
- patient demonstrates Pasero-Opioid Sedation Scale level 3 or 4; or
- patient experiences overdose or adverse events.

Opioid weaning considerations:

- Rate of taper: rates >10% associated with relapse/abuse (see CDC guidance).
- Avoid arbitrary goals or treatment doses.
- Ensure primary care provider is available to monitor tapering.
- Refer to medication-assisted treatment as needed.

Prescribing for surgeries[7]

Perioperative counseling

- Discuss the expectations regarding recovery and pain management goals with the patient.
- Educate the patient regarding safe opioid use, storage and disposal.
- Determine the patient's current medications (e.g., sleep aids, benzodiazepines) and any high-risk behaviors or diagnosis (e.g., SUD, depression or anxiety).
- Do NOT provide opioid prescription for postoperative use prior to the surgery date.

Intraoperative

- Consider a nerve block, local anesthetic catheter or an epidural when appropriate.
- Consider non-opioid medications when appropriate (e.g., ketorolac).

Postoperative

- Ensure written discharge instructions communicate consistent messaging regarding functional pain management goals.

[6] Jared, "Opioid Adverse Drug Events, Pain Management and Opioid Alternatives"
[7] Waljee, Jennifer F., "Targeted Areas for Improvement (Emergency Department, Operating Room, Transitions of Care)," EQIC webinar, Nov. 30, 2021

Prescribing for emergency department[8]

- Ensure patient has a primary care provider to follow up on medication management.
- Prescriptions should be written for the shortest duration appropriate (no more than three days).
- Patients suspected of SUD should be screened.
- The ED should not dispense prescriptions for controlled substances that were lost, destroyed, stolen or finished prematurely.
- EDs and urgent care providers, or other designees, should reference prescription drug monitoring program resources.
- Consider MAT with buprenorphine as a strategy to reduce OUD.

Discharge considerations[9,10]

- Ensure the patient has a primary care physician to follow up.
- Access the prescription drug monitoring program prior to prescribing controlled substances.
- Encourage non-opioid therapies as a primary treatment for pain management (e.g., acetaminophen, ibuprofen).
- Encourage non-pharmacologic therapies such as ice, elevation and physical therapy.
- Consider prescribing short-acting opioids for no more than three to five days.
- Co-prescribe naloxone if discharging the patient on opioids.
- Educate the patient, parent, guardian and/or care partner regarding safe use of opioids, potential side effects, overdose risks and developing dependence or addiction.
- Educate the patient, parent, guardian and/or care partner on tapering of opioids.
- Perform medication reconciliation and verify patient home doses.
- Remove any transdermal patches.

Opioid-related adverse drug events[11]

Signs and symptoms of an ADE include:

- respiratory depression (Prodigy Risk Prediction Tool);
- sedation;
- tolerance;
- dependence;
- bladder retention;
- delirium;
- constipation;
- nausea;

[8] Lynch, Joshua, "Targeted Areas for Improvement (Emergency Department, Operating Room, Transitions of Care), EQIC webinar, Nov. 30, 2021
[9] Jared, "Opioid Prescribing Guidelines and Best Practices"
[10] Jared, "Opioid Adverse Drug Events, Pain Management and Opioid Alternatives"
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- pruritus;
- urine retention; and
- pseudo vs. true allergy.

Monitoring patients for ADEs[12]

- Check vital signs.
- Evaluate high-risk patients with continuous pulse oximeter.
- Assess pain and sedation pre- and post-medication administration:
    - Determine pain score using Critical Care Pain Observation Tool screener for delirious patients; functional pain scale for alert patients.
    - Monitor sedation using Pasero Opioid-induced Sedation Scale for awake, alert patients; Richmond Agitation Sedation Score for intubated and sedate patients; Ramsay Sedation Scale for patients awakening from sedation.
        - Sedation should be checked more frequently at first (15 to 30 minutes after first dose).
        - May check more routinely after dose and if use is stable for 24 hours.
        - Nighttime sedation assessments are still important in the first 24 hours.
        - Set alarm thresholds for monitoring respiratory depression.
        - Shift change is a chance to establish norms.
        - Increase frequency if other adverse events are increasing or clinical status changes.
        - Personal care assistant monitoring: Initially hourly, may reduce to every four hours once stable.
        - Capnography is beneficial in this group.
- Evaluate underlying conditions or clinical problems that may increase or cause pain.
- Supplemental oxygen: Opioids and supplemental oxygen can be a very dangerous combination — measuring more than oxygen saturations is important.
    - Limit supplemental oxygen to only those who need it.
    - Set upper limits of supplement (92% to 95%).
    - Measure CO2 levels with oxygen saturations.

Screening tools to avoid opioid ADEs

- Screener and Opioid Assessment for Patients with Pain — Revised (SOAPP-R)
- Opioid Risk Tool

[12] Jared, "Opioid Adverse Drug Events, Pain Management and Opioid Alternatives"

Mitigating opioid-related ADEs[13,14]

- Naloxone should be available in all clinical areas, as well as co-prescribed for patients on opioids.
- Titration should be carefully monitored when weaning.
- Consider pharmacologic and non-pharmacologic opioid alternatives.
- Use MAT.
- Consider mental health support in treatment plans.
- Avoid starting opioids when not necessary.

[13] Jared, "Opioid Prescribing Guidelines and Best Practices"
[14] Jared, "Opioid Adverse Drug Events, Pain Management and Opioid Alternatives"

References

American Medical Association. Essentials of Good Pain Care: A Team-Based Approach Safely Manage Acute and Chronic Pain. https://edhub.ama-assn.org/stepsforward/module/2702759

Bicket, M.C., et al. *Am J Surg* 2019; Brummett, C.M., et al. *JAMA Surg* 2017; Gil, J.A., et al. *Am J Sports Med* 2019; Larach, D.B., et al. *Annals Surg* 2019

Buffalo Matters Network (n.d.) University at Buffalo
https://medicine.buffalo.edu/about/community_outreach/buffalo-matters.html

Chang, A.K., Bijur, P.E., Esses, D., Barnaby, D.P., Baer, J. (2017) Effect of a single dose of oral opioid and nonopioid analgesics on acute extremity pain in the emergency department: a randomized clinical trial. *JAMA*. 017; 318(17):1661-1667

CDC, Guideline for Prescribing Opioids for Chronic Pain — United States, 2016.
https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

CDC, (n.d.) Pocket Guide: Tapering Opioids for Chronic Pain.
https://www.cdc.gov/drugoverdose/pdf/Clinical_Pocket_Guide_Tapering-a.pdf

Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid – HHS publication. (2019) *JAMA*. 2021; 326(5):411-419. doi:10.1001/jama.2021.11013
https://www.hhs.gov/opioids/treatment/clinicians-guide-opioid-dosage-reduction

Lee, R., Malfair, S., Schneider, J., et al. (2019) Evaluation of Pharmacist Intervention on Discharge Medication Reconciliation. *Can J Hosp Pharm*. 72(2):111-118

Passik, S., Kirsh, K., Casper, D. (July 2008) Addiction-Related Assessment Tools and Pain Management: Instruments for Screening, Treatment Planning, and Monitoring Compliance, Pain Medicine, Volume 9, Issue suppl_2, July 2008, Pages S145–S166. https://doi.org/10.1111/j.1526-4637.2008.00486.x

Prescribers Letter. Appropriate Opioid Use. 2016, August 2012

The Regents of the University of Michigan. (2022) Reducing Risks for Safer Communities.
https://michigan-open.org

Sessler, C.N., Grap, M.J., Ramsay, M.A. (2008) Evaluating and monitoring analgesia and sedation in the intensive care unit. Crit Care. 212 Suppl 3(Suppl 3):S2. Doi: 10.1186/cc6148

Society of Hospital Medicine (2015) Reducing Adverse Drug Events Related to Opioids Implementation Guide.
https://www.hospitalmedicine.org/globalassets/clinical-topics/clinical-pdf/shm_reducingopiodevents_guide.pdf

Footnotes

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6. Jared, Matthew, Opioid Adverse Drug Events, Pain Management and Opioid Alternatives"
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13. Jared, "Opioid Prescribing Guidelines and Best Practices
14. Jared, Matthew, Opioid Adverse Drug Events, Pain Management and Opioid Alternatives"