



EDUCATIONAL RESOURCES

Opioid Conversions: A Palliative Perspective

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Objectives

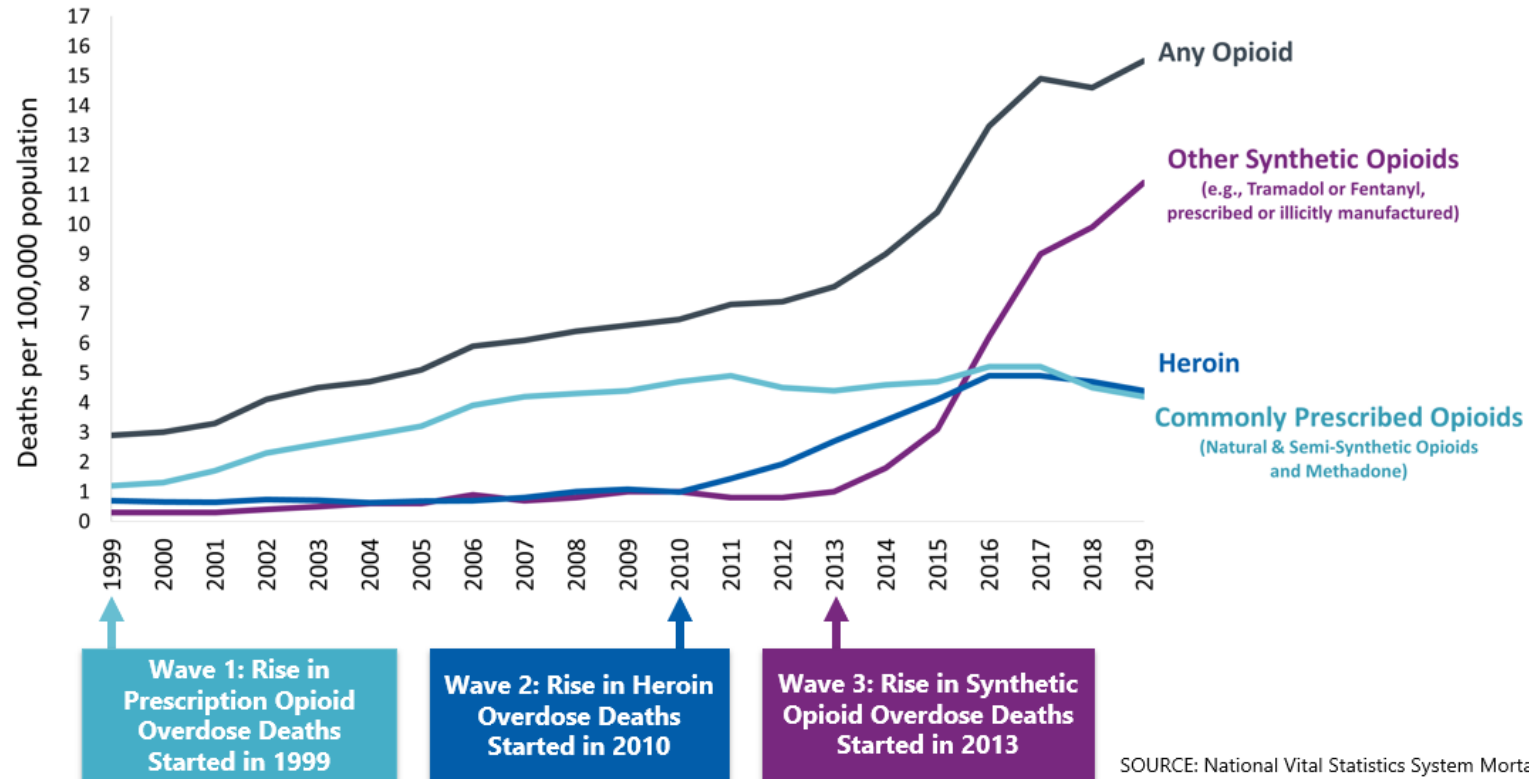
- Explore recommendations for safe prescribing and appropriate use of opioids
- Review recommendations for safe, effective opioid rotations
- Identify methadone, transdermal fentanyl, opioid infusion, and opioid-sparing candidates

It's not magic, I promise!



The CDC: Opioid Overdose Epidemic

Three Waves of the Rise in Opioid Overdose Deaths



www.cdc.gov

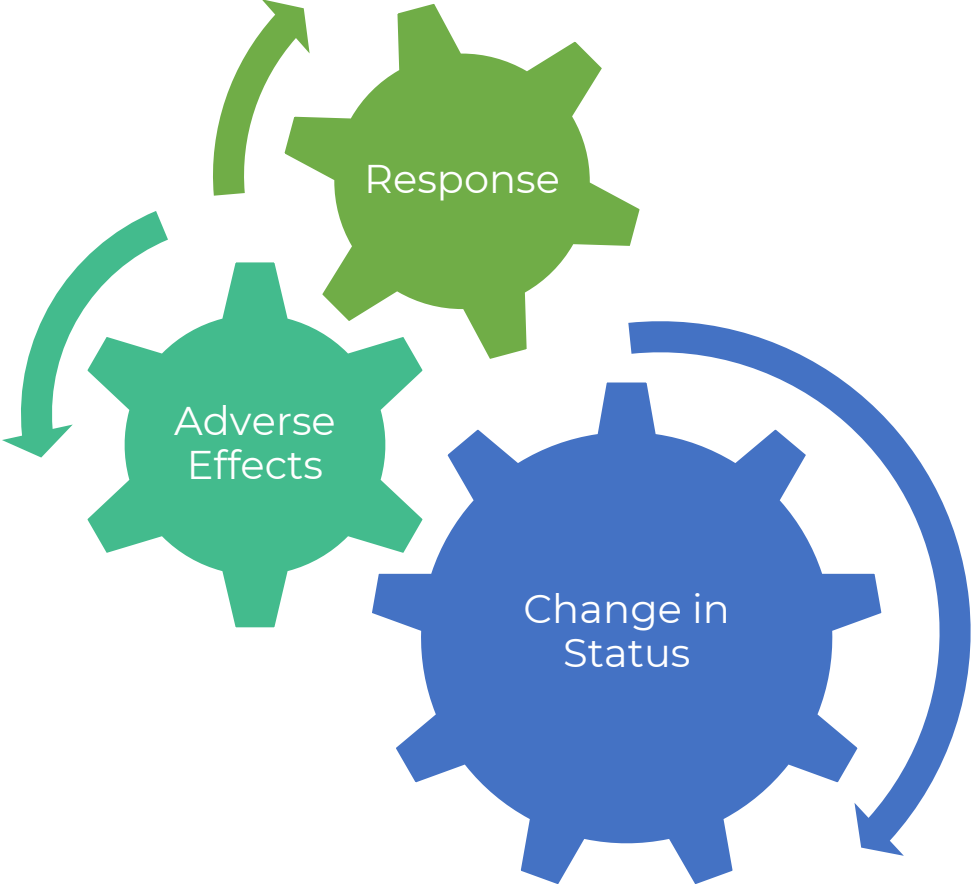
CDC: Opioid Calculation Recommendations

- Calculating Total Daily Dose of Opioids for Safer Dosage
 - Use caution when prescribing opioids at any dosage
 - Prescribe the lowest effective dose
 - Use extra precaution when increasing to ≥ 50 MME per day
 - Monitor and assess pain/function more frequently
 - Discuss reducing/tapering dose and discontinuing opioids if benefits do not outweigh harms
 - Consider offering naloxone
 - Avoid or carefully justify increasing dosage to ≥ 90 MME per day



www.cdc.gov

Opioid Rotation



Opioid Rotation

- Switching to a different opioid analgesic when inadequate response to one opioid or adverse effects become intolerable
 - Improved pain control
 - Decreased intensity of adverse effects
- Failure to respond to one opioid dose not mean a patient will not respond to other opioids
- Incomplete cross-tolerance



Equianalgesic Opioid Dosing

Opioid Analgesic	Parenteral (mg)	Oral (mg)
Buprenorphine	0.3	0.4
Codeine	100	200
Fentanyl	0.1	
Hydrocodone		30
Hydromorphone	1.5	7.5
Meperidine	100	300
Morphine	10	30
Oxycodone	10 (not available in US)	20
Oxymorphone	1	10
Tramadol	100	120

J Pain Symptom Manage. 2009.

Opioids: Short-Acting Agents

- Moderate to severe pain
- Gold standard: Morphine?
- Individualize dosing
 - Tolerance
 - Severity
- Adverse effects: gastrointestinal, autonomic, cutaneous, central nervous system, true opioid allergies
- Often dosed Q4H PRN

Hydrocodone

Hydromorphone

Morphine

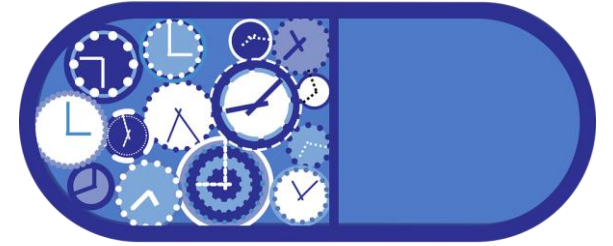
Oxycodone

Oxymorphone

Tramadol

Opioids: Long-Acting Agents

- Improved ability to adhere to the prescribed regimen
- Potentially fewer adverse effects
- Dosed every 8, 12 or 24 hours (product specific)
- Should generally NOT be crushed or chewed
 - Exception: Methadone
 - May flush certain time-released granules down feeding tube (Kadian®)
- Adjust doses after reaching steady state
 - Special considerations: Methadone
- Consider pain rating, adjuvant therapy and PRN doses used



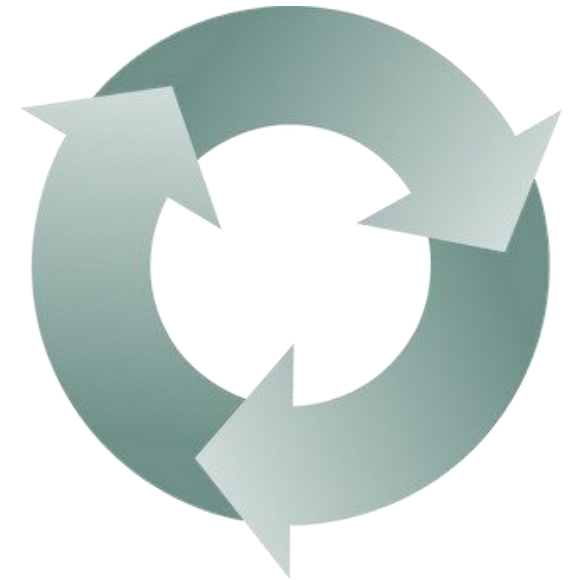
Case: Patient A

- 67-year-old female being admitted to hospice
- Pancreatic cancer with liver metastasis
- Lower abdominal pain
 - Intensity Rating: 7/10 (average)
 - Patient describes as: stabbing, aching, and constant
- Current analgesics:
 - Morphine ER 200mg PO q8h
 - Morphine IR 90mg PO q2h prn BTP (using 3 doses/day)
 - Total daily Oral Morphine Equivalent (OME): 870mg



Case: Patient A

- Opioid analgesics: Infusions
 - Intravenous
 - Subcutaneous



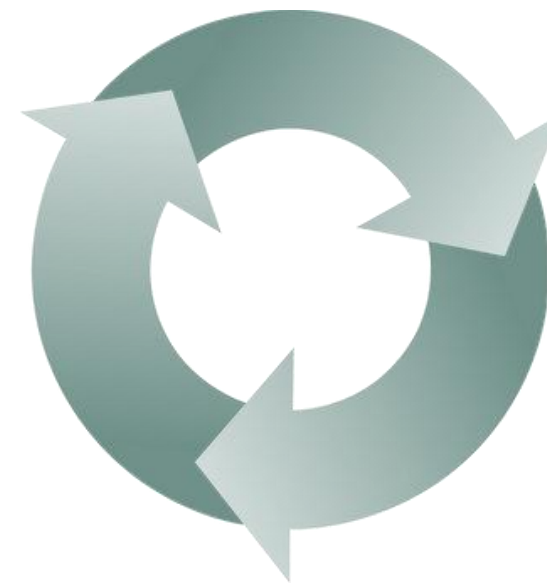
Case: Patient B

- 60-year-old male being seen by palliative care team
- Prostate cancer
- Lower back and hip pain
 - Intensity Rating: 10/10 (with movement)
 - Patient describes as: stabbing and burning
- Current analgesics:
 - Morphine ER 60mg PO q8h
 - Morphine IR 20mg PO q2h prn BTP (using 5 doses/day)
 - Total daily Oral Morphine Equivalent (OME): 280mg



Case: Patient B

- Methadone
 - Synthetic opioid
 - Reputation
 - Duration of action
 - Efficacious
 - Cost-effective
 - Monitoring



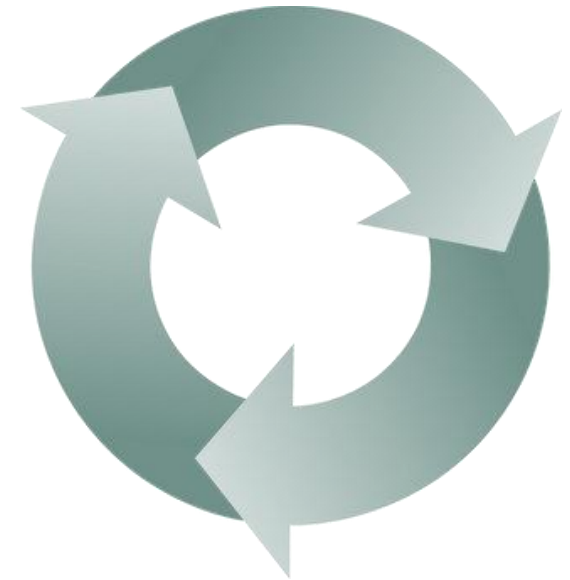
Case: Patient C

- 49-year-old male admitted to hospice
- Prognosis of days to short weeks
- Cirrhosis of the liver
- Abdominal pain and distension
 - Intensity Rating: 7/10
 - Patient describes as: dull, aching and constant
- History: alcoholism, illicit drug use, 5'9" 160 lbs.
 - Potential for self-titration exists
 - Routine Home Care, Minimal caregiver support
- Current analgesics:
 - Morphine IR 15mg PO q4h prn pain (using 6 doses/day)
 - Total daily Oral Morphine Equivalent (OME): 90mg



Case: Patient C

- Transdermal Fentanyl
 - Synthetic opioid
 - Extra precautions
 - Prolonged half-life and duration of action
 - Patch strengths





Thank you

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References

- Centers for Disease Control and Prevention. Maps & Graphs on U.S. Drug Overdose Death Rates. <https://www.cdc.gov/drugoverdose/deaths/index.html>. Accessed March 7, 2022.
- Centers for Disease Control and Prevention. Opioid Prescribing Guideline Resources. <https://www.cdc.gov/opioids/providers/prescribing/index.html>. Accessed March 7, 2022.
- González-Barboteo J, Alentorn XG, Manuel FA, Candel VA, Eito MA, Sánchez-Magro I, Álvarez MN, Martín FJ, Porta-Sales J. Effectiveness of opioid rotation in the control of cancer pain: the ROTODOL study. *J Opioid Manag*. 2014 Nov-Dec;10(6):395-403. doi: 10.5055/jom.2014.0236. PMID: 25531957.
- Knotkova H, Fine PG, Portenoy RK. Opioid rotation: the science and the limitations of the equianalgesic dose table. *J Pain Symptom Manage*. 2009 Sep;38(3):426-39. doi: 10.1016/j.jpainsymman.2009.06.001. PMID: 19735903.
- Mercadante S, Bruera E. Opioid switching in cancer pain: From the beginning to nowadays. *Crit Rev Oncol Hematol*. 2016 Mar;99:241-8. doi: 10.1016/j.critrevonc.2015.12.011. Epub 2015 Dec 29. PMID: 26806145.

References

- McPherson, Mary Lynn. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd Edition. American Society of Health-System Pharmacists, Inc. 2018.
- Gaertner J, Boehlke C, Simone CB, Hui D. Early palliative care and the opioid crisis: ten pragmatic steps towards a more rational use of opioids. *Ann Palliat Med* 2019;8(4):490-497. <http://dx.doi.org/10.21037/apm.2019.08.01>.
- McPherson ML, Walker KA, Davis MP, et al. Safe and appropriate use of methadone in hospice and palliative care: Expert consensus white paper. *J Pain Symptom Manage*. 2019;57(3):635-645.
- Anderson SL, Shreve ST. Continuous subcutaneous infusion of opiates at end-of-life. *Annals of Pharmacotherapy*. 2004; 38(6): 1015-1023.