OPIOID CRISIS AND PAIN MANAGEMENT IN THE POST-ACUTE SETTING

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LEARNING OBJECTIVES

- Better understand the opioid crisis in the United States
- Develop more knowledge regarding pain management in the elderly
- Describe opioid overdose protocols
- Learn and discuss how to apply this information to the residents in your long-term care facilities

HELPFUL DEFINITIONS

- Opioid: Natural, synthetic, or semi-synthetic chemicals that interact with opioid receptors on nerve cells in the body and brain.

  Examples: heroin, fentanyl, oxycodone, hydrocodone, codeine, tramadol and morphine

- Opiate: natural opioids like heroin, morphine, and codeine
- Narcotic: technically only refers to opioids, but often used to refer to any illegal drug. Opioid is now the preferred term to avoid confusion[28]

HELPFUL DEFINITIONS, CONT.

- Opioid tolerance: occurs when a person using opioids begins to experience a reduced response to medication, requiring more opioids to experience the same effect
- Opioid dependence: occurs when the body adjusts its normal functioning around opioids use. Unpleasant physical symptoms occur when medication is stopped.
- Opioid addiction (Opioid use disorder): occurs when attempts to cut down or control use are unsuccessful or when use results in social problems and a failure to fulfill obligations at work, school, and home.[28]

HOW DID WE GET HERE?
OPIOID CRISIS

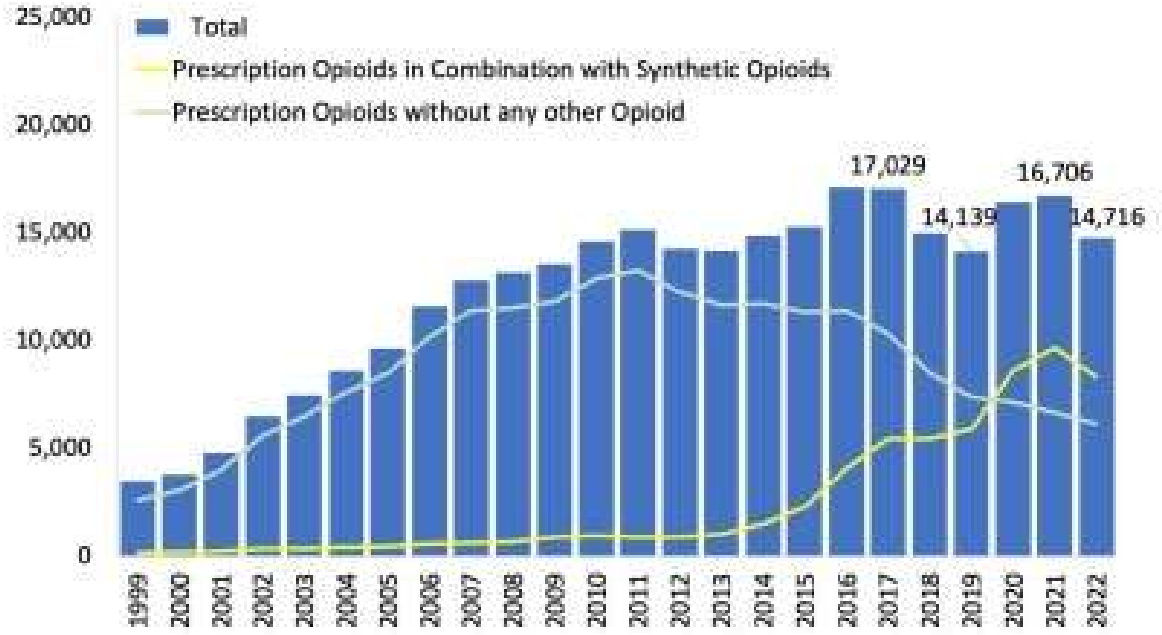
- Opioid Crisis: also known as the Opioid epidemic
- Late 1990s: pharmaceutical companies reassured medical community that patients would not become addicted to opioid pain relievers
- Resulted in increased prescription rates, leading to widespread misuse of both prescription and non-prescription opioids
- Declared a public health emergency by HHS in 2017 [31]

OPIOID CRISIS IN THE UNITED STATES

- From 1999-2019, nearly 500,000 people died from an overdose involving any opioid
- 100,306 drug overdose deaths from April 2020 to April 2021 – a 28.5% increase from the year before
- October 2023 to September 2024: 87,000 deaths. **24% decrease from the prior year!**


224
PEOPLE
died each day from an
opioid overdose in 2022.
CDC

Figure 4. U.S. Overdose Deaths Involving Prescription Opioids*, 1999-2022



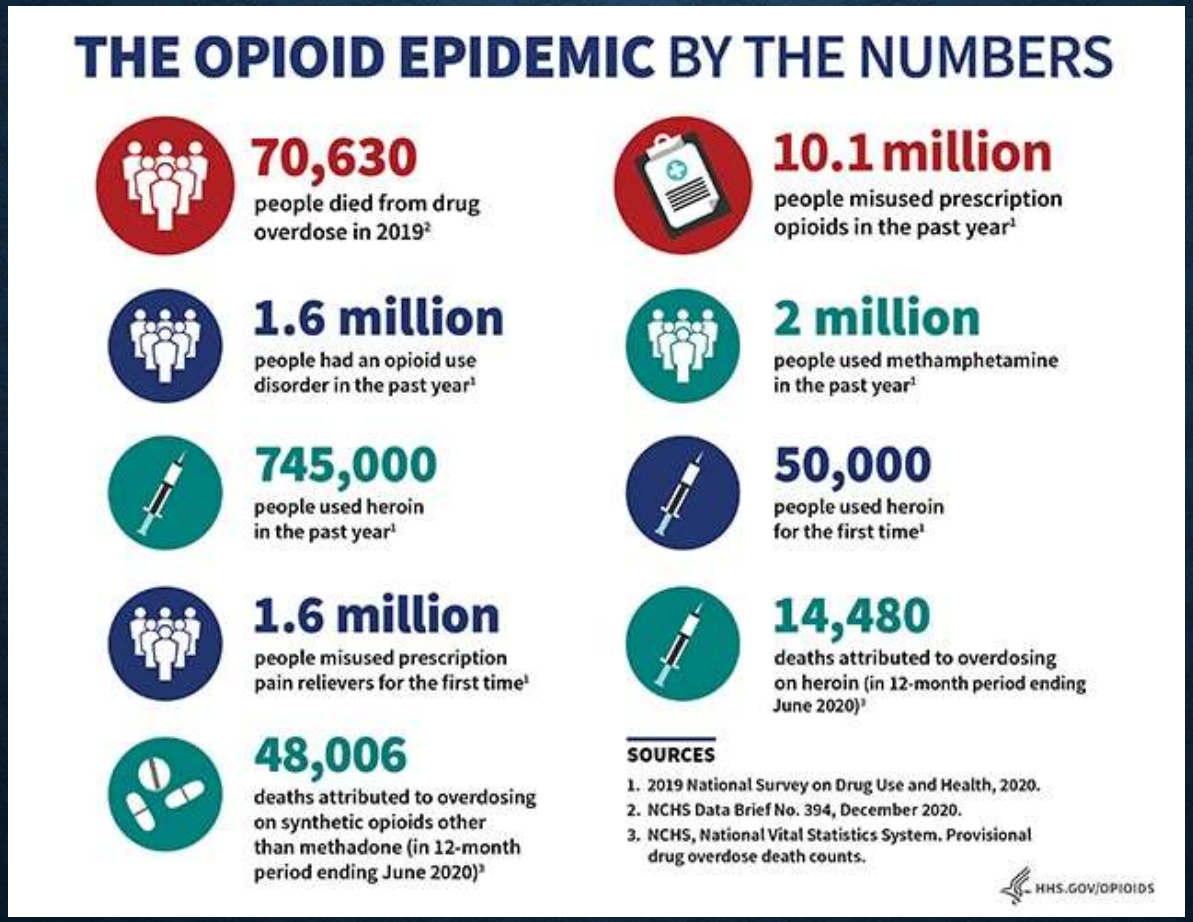
*Among deaths with drug overdose as the underlying cause, the prescription opioid subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2) or methadone (T40.3). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2022 on CDC WONDER Online Database, released 4/2024.

OPIOID CRISIS IN THE UNITED STATES… CONTINUED

- About 21 to 29 percent of patients that get an opioid medication misuse it. [3]
- Opioid use disorder develops in 8 – 12 percent. [4-6]

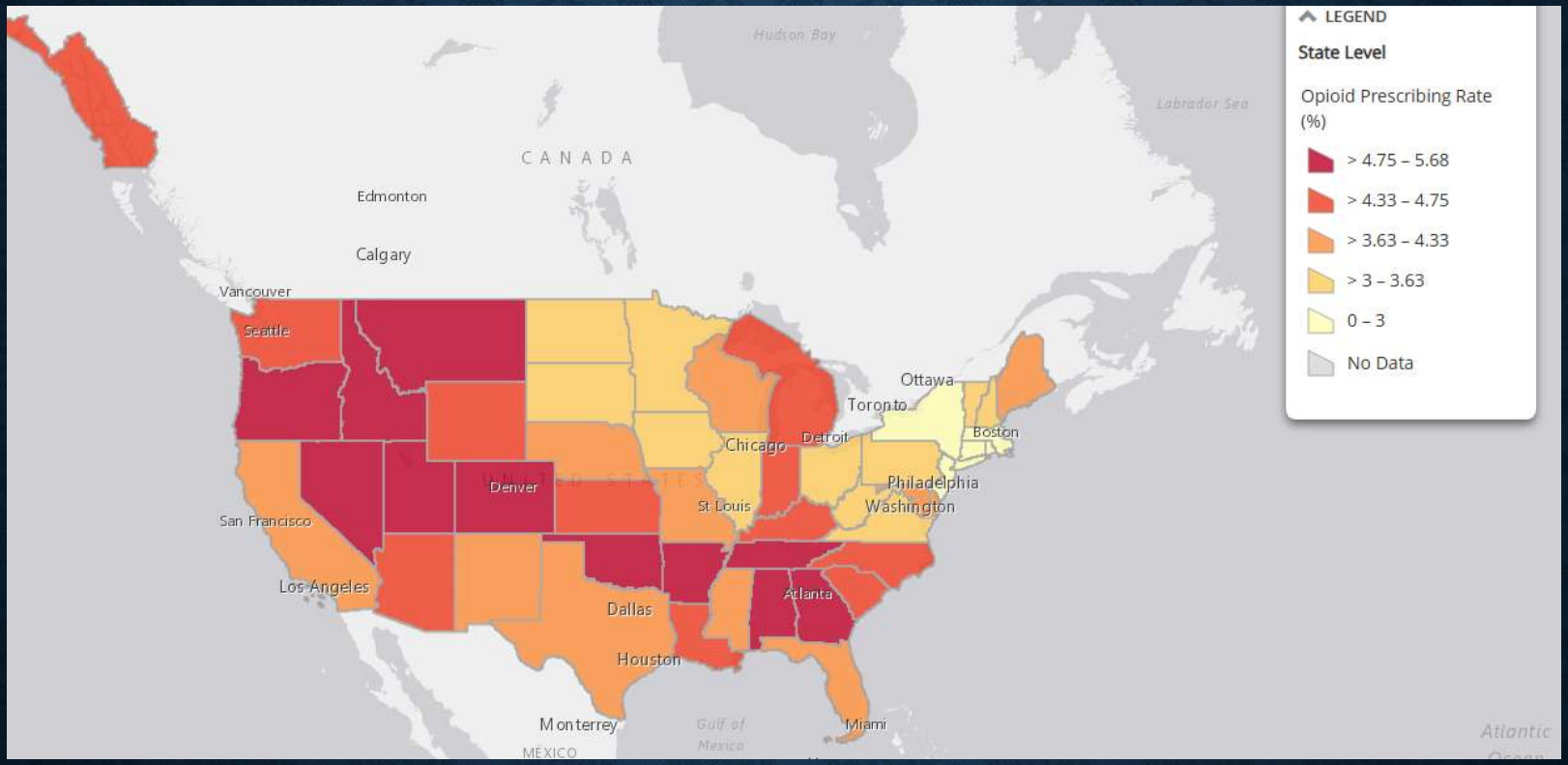
OPIOID CRISIS IN THE UNITED STATES… CONTINUED

- The Centers for Disease Control and Prevention state they estimate through cost of healthcare, criminal justice development, lost productivity, and addiction treatment that there is a $1.02 trillion a year economic burden due to opioid misuse. [2]


THE OPIOID EPIDEMIC BY THE NUMBERS
70,630
people died from drug overdose in 2019[2]
10.1 million
people misused prescription opioids in the past year[1]
1.6 million
people had an opioid use disorder in the past year[1]
2 million
people used methamphetamine in the past year[1]
745,000
people used heroin in the past year[1]
50,000
people used heroin for the first time[1]
1.6 million
people misused prescription pain relievers for the first time[1]
14,480
deaths attributed to overdosing on heroin (in 12-month period ending June 2020)[3]
48,006
deaths attributed to overdosing on synthetic opioids other than methadone (in 12-month period ending June 2020)[3]
SOURCES
1. 2019 National Survey on Drug Use and Health, 2020.
2. NCHS Data Brief No. 394, December 2020.
3. NCHS, National Vital Statistics System. Provisional drug overdose death counts.
HHS.GOV/OPIOIDS

OPIOID PRESCRIBING TRENDS

- Prescribing had a steady increase from 2006 to 2012. Peak was in 2012 with more than 255 million with a prescriber rate of 81.3 prescriptions per 100 people. [9]
- 2012 to 2017 the trend declined with 2017 being the lowest prescribing rate in 10 years at 58.7 prescriptions per 100 people. [9]



MEDICARE PART D PRESCRIBING RATES 2022 (29)

- Percentage of a prescriber's total Part D claims that are opioid prescriptions

HHS 5-POINT STRATEGY

- Improve access to prevention, treatment, and recovery support services
- Improving access to addiction, prevention, treatment, and recovery support services
- Strengthen public health data reporting and collection
- Support cutting-edge research on addiction and pain
- Advance the practice of pain management

OPIOID PRESCRIBING: BACKGROUND

- 11% of adults experience pain on a daily basis. [11]
- In older adults, it is reported that 40-50% report having chronic pain. [18-20]
- Pain itself is not a normal part of aging [33]
- 45-80% of long-term care residents are estimated to have chronic pain [33]

OPIOID PRESCRIBING: BACKGROUND

- Prevalence is found to increase with age. Also, those who have:
  - Obesity
  - Musculoskeletal conditions such as hip fractures, arthritis, osteoporosis
  - Depression
  - Multiple comorbidities [20]

CAUSES OF PAIN

- Most chronic pain in long-term care facilities is related to arthritis and musculoskeletal problems
- Pain can also be caused by nervous system damage or disease
- Pain from osteoporosis is also common[33]

BARRIERS TO RECOGNIZING PAIN IN LONG-TERM CARE FACILITIES

- Cognitive and communication barriers
- Cultural and social barriers
- Co-existing illnesses and multiple medication use
- Staff training and access to appropriate tools
- Practitioner limitations
- System barriers
- Inadequate communication among interdisciplinary team members [33]

CONSEQUENCES OF UNTREATED PAIN

- Acute pain: usually results from trauma and lasts no longer than 3 to 6 months
- Undertreatment of acute pain my lead to decreased responsiveness to opioid analgesics
- Uncontrolled pain affects the central nervous, cardiovascular, pulmonary, gastrointestinal, renal, immunologic, and muscular systems
- Correlation between chronic pain and chronic conditions like insomnia, cognitive decline, and depression[34]

COMPONENTS OF PAIN ASSESSMENT IN AN ASSISTED LIVING FACILITY

- Should always incorporate a resident's self report of pain
- Even in cognitively impaired patients: 80% of these residents could complete at least one of five scales using words or pictures per one study
- Should also include additional direct examination
- Look for signs: facial expressions, moaning, rubbing hands, crying, not eating[33]
- Reassess pain: One paper[23] found that 65% of hospitalized elderly patients pain was not reassessed.

PAIN MANAGEMENT

Begin with appropriate pain assessment

Selected Pain Scales for Older Adults [18]	
Checklist of Nonverbal Pain Indicator (CNPI)	Observational test completed by staff
Descriptor Differential Scale (DDS)	Self-report in 12-item questionnaire
Discomfort in Dementia (DS-DAT)	Observational 9-item tool
FACES (Wong-Baker)	Scale of six faces showing no pain to worst pain
Mankowski Pain Scale	0 to 10 scale with descriptions
McGill Pain Questionnaire (MPQ)	20 items grouped as sensory, affective, evaluative, and misc. with 0-5 score
Numerical Rating Scale (NRS)	0 to 10 scale (0-no pain; 10- worst pain)
Verbal Rating Scale (VRS)	Self-report by pt, asking to describe pain in 5 categories
Visual Analog Scale (VAS)	Self-report by pt, select point on 100-mm line that indicates pain level, scale represents percent pain 0 – 100%.

PAIN MANAGEMENT, CONTINUED

- Initially, select non-pharmacologic or nonopioid pharmacologic therapy.
  - Non-pharmacologic therapy options:
    - Comfort therapy:
      - Exercise
      - Massage therapy/lotions
      - Positioning
      - Heat/Cold application
    - Neurostimulation
      - Transcutaneous electrical nerve stimulation (TENS)
      - Acupuncture
    - Psychosocial therapy/counseling
    - Physical therapy and occupational therapy [12]

PAIN MANAGEMENT, CONTINUED

- Nonopioid Pharmacologic Therapy
  - These would be options like:
    - NSAIDS
      - Example: ibuprofen (IBU), topical NSAIDS, naproxen
    - Acetaminophen (Tylenol, APAP)
    - Celecoxib [12]

Table 1. Select Practice Guidelines for Selection of Nonopioid Analgesics[2-7]

Indication	Practice Guidelines
Low back pain	**American College of Physicians and American Pain Society 2007** • Acetaminophen or NSAIDs as first-line treatments • When NSAIDs are selected, patient-specific risk factors need to be considered, and the lowest effective dose should be used for the shortest amount of time. • There is insufficient evidence to recommend for or against the use of aspirin.
Osteoarthritis	**American Academy of Orthopedic Surgeons 2010** • Acetaminophen or NSAIDs • At risk for GI complications: nonselective NSAIDs plus a gastroprotective agent, celecoxib, or topical NSAIDs **Agency for Healthcare Research and Quality 2009; American College of Rheumatology (ACR) 2000** • Acetaminophen as a first-line treatment • ACR specifically recommends a nonselective NSAID plus misoprostol or a proton pump inhibitor for patients who are at an increased risk for GI adverse events. • Other options recommended by ACR: celecoxib, nonacetylated salicylates (eg, choline magnesium trisalicylate, salsalate), tramadol, and opioids
Acute migraine attack	**American Academy of Family Physicians and the American College of Physicians–American Society of Internal Medicine 2002** • First-line therapies for most migraine sufferers include any of the following: aspirin, ibuprofen, naproxen, or acetaminophen plus aspirin and caffeine.

GI, gastrointestinal; NSAIDs, nonsteroidal anti-inflammatory drugs.

COMMON ANALGESIC DOSAGES

- Common dosages of nonopioid analgesics:
  - Acetaminophen
    - Immediate release: 650mg every 4 to 6 hours (Max: 4000mg/day); Extra Strength: 1000mg every 6 hours (Max 3000mg/day)
    - Extended release: 1300mg every 8 hours (Max 3900mg/day unless directed by health care provider)
  - IBU (ibuprofen)
    - Mild to moderate pain: 400mg every 4 to 6 hours (Max 3200mg/day)
    - Off-label: 200mg to 800mg 3 to 4 times a day (Max 3200mg/day)
    - American Pain Society (off-label): 200-400mg every 4 to 6 hours (Max 3200mg/day) [14,15]

OPIOID PRESCRIBING

- In America, millions are treated for chronic pain using prescription opioid medications. [11]
- PCPs (primary care providers) are concerned about addiction to these prescription opioid medications and report insufficient training when prescribing opioid medications for pain. [11]

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

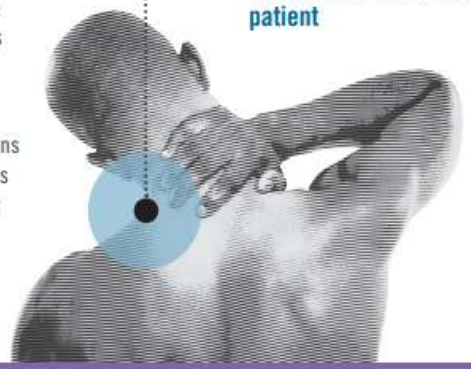
1. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

CLINICAL REMINDERS

- **Opioids are not first-line or routine therapy for chronic pain**
- **Establish and measure goals for pain and function**
- **Discuss benefits and risks and availability of nonopioid therapies with patient**



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html

OPIOID PRESCRIBING-RECOMMENDATIONS

- CDC Guideline for Prescribing Opioids for Chronic Pain
  - Recommend to consider the following three focus areas:
    - Determine when to start or continue opioid medications for chronic pain
    - Opioid Selection, Dose, Length of treatment (duration), Follow-up, and When to Stop (discontinuation)
    - Assess risk, address harms associated with opioid medication use [11]

OPIOID PRESCRIBING

- Next, choose appropriate dose and dosage form
  - Start low and go slow
  - Choose immediate release initially, but may need long acting
    - At times, with chronic pain, long-acting formulations may be preferred to increase duration of pain relief and improve quality of life. Long-acting have benefit of less frequent dosing as well.
    - Mary Lynn McPherson, PharmD, MA,MDE, BCPS, a professor in the school of pharmacy in Baltimore also states, "Opioids with short duration result in serum levels of considerable variability, so analgesia can be more difficult to achieve, and side effects can be more problematic."[18]

OPIOID PRESCRIBING- OPIOID SELECTION, DOSE, LENGTH OF TREATMENT (DURATION), FOLLOW-UP, AND WHEN TO STOP (DISCONTINUATION)

- Guidelines from CDC for starting an opioid analgesic:
  - Prescribe no more than is needed for acute pain management
  - Do not use extended release or long-acting opioids for acute pain management
  - Follow-up and re-evaluate
    - Look at benefits vs. risk within 1 to 4 weeks of starting an opioid medication
    - Re-eval every 3 months or more frequently for continued need
    - If benefits do not outweigh the risks involved, then work to taper and get to lowest effective dose or discontinue [11]

Calculating Morphine Milligram Equivalents (MMEs)

OPIOID PRODUCTS	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
1 – 20 mg/day	4
21- 40 mg/day	8
41-60 mg/day	10
61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3
*mme = based on morphine milligram equivalency	mcg = microgram
Adapted from "Calculating Total Daily Dose of Opioids For Safer Dosage." Available at: https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf. Accessed September 9, 2020.	

OPIOID PRESCRIBING- ASSESS RISK, ADDRESS HARMS ASSOCIATED WITH OPIOID MEDICATION USE

- Evaluate risk factors for harm related to opioid medication use
  - Incorporate into plan strategies that mitigate risk
  - Consider naloxone when factors increase the risk of an opioid overdose
  - Look at patient's history for possible overdose in the past, or substance abuse
  - Are you using higher opioid doses (greater than or equal to 50 MME/day)
  - Is there concurrent benzodiazepine[16] use?
    - Both of these medication types can sedate users and suppress breathing
    - Person was on concurrent benzo in more than 30% of overdoses [11]

OPIOID PRESCRIBING GUIDELINES

- Dosing [18,22]
  - Consider renal function, even in absence of renal disease
    - This can decrease clearance of renally eliminated opioids

OPIOID DOSAGE RECOMMENDATIONS FOR RENAL IMPAIRMENT

GFR (mL/min)	Morphine	Hydromorphone	Oxycodone	Methadone	Fentanyl
>50	100% of original dosing	50-100% of original dosing	100% of original dosing	100% of original dosing	100% of original dosing
10-50	50-75% of original dosing	50% of original dosing	50% of original dosing	100% of original dosing	75-100% of original dosing
<10	Not recommended	25% of original dosing	Not recommended	50-75% of original dosing	50% of original dosing

RECOMMENDATIONS FOR OPIOIDS FOR RENAL IMPAIRMENT

Opioid	Recommended Use
Codeine	Not recommended due to accumulation
Fentanyl	Appears safe, but renal dosage adjustment may be necessary
Hydrocodone/Oxycodone	Use cautiously/adjust dosage
Hydromorphone	Use cautiously/adjust dosage
Methadone	Appears safe; however renal dosage adjustment may be necessary
Meperidine	Not recommended due to metabolites
Morphine	Not recommended due to metabolites
Tramadol	Not recommended

OPIOID PRESCRIBING GUIDELINES

- Dosing [18,22]
  - Consider hepatic function
    - See next slide for recommendations of dose adjustments

Table 3. Recommendations for Opioids in Hepatic Impairment

Opioid	Recommendations
Codeine	Not recommended; in severe hepatic dysfunction codeine is not converted to morphine, leading to poor analgesia
Fentanyl	99% metabolized in liver; studies have not demonstrated PK alterations; careful monitoring is warranted
Hydrocodone	Use with caution; monitor for overdose due to parent compound not being converted to metabolites
Hydromorphone	Undergoes phase II reaction; however, use with caution due to its intermediate extraction ratio
Methadone	Use with caution; risk of accumulation because of increased free drug
Meperidine	Not recommended; toxic metabolite, normeperidine, may accumulate
Morphine	Use with caution; monitor for overdose due to high extraction ratio
Oxycodone	Use with caution; dose adjustment recommended (1/2 to 1/3 of original dose)
Oxymorphone	Contraindicated in moderate-to-severe hepatic impairment
Tramadol	Not recommended; significant PK changes in moderate-to-severe hepatic impairment

PK: pharmacokinetics. Source: References 8, 16.

OPIOID PRESCRIBING: POST-ACUTE CARE SETTING

- Other medication options to consider:
  - Naloxone
    - Opioid Antagonist
  - Naloxone co-prescribing when patient is at high risk for overdose.
  - Comes in injectable and nasal spray formulation.
  - Considerations for when to co-prescribe naloxone:
    - Those that take opioid and also use benzodiazepines, sedatives, antidepressants, or consume alcohol.
    - Who smoke or have respiratory illnesses
    - Who have renal or hepatic disease, those who have cardiovascular disease, or HIV
    - Those with history of opioid related overdose or misuse
    - Taking methadone or buprenorphine for opioid-use disorder
    - Taking 50mg or more of oral morphine or its equivalent daily routinely
    - Being rotated from one opioid to another
    - Those that request it
    - 65 years or older [24]

OPIOID PRESCRIBING

- Other medication options to consider:
  - Low-Dose Naltrexone (1mg to 4.5mg daily)
    - Opioid antagonist
      - May have anti-inflammatory and analgesic effects
    - Not associated with misuse or dependence
    - Not associated with adverse events
    - May be an option in elderly patients with comorbidities such as cardiovascular, renal, gastrointestinal, or liver disease.
    - Small number of case reports, pilot studies, randomized controlled studies have shown efficacy.
    - No drug-drug interactions
    - Inexpensive [25]

OPIOID PRESCRIBING

- Methods to reduce overall number of opioid medications (deprescribing) Recommend referring to START/STOPP criteria
  - Patients greater than or equal to 65, the following could be potentially inappropriate:
    - Long term opiate (Ex. Morphine, Fentanyl, etc) use for first line treatment of mild to moderate pain
    - Regular opiate use with people that have chronic constipation
    - Long term opiate use in patients with dementia unless palliative care for moderate to severe pain
    - TCAs with opiate
    - Duplicate drug classes such as two opiate medications
  - Other approaches: Look at PRN pain medications, routine assessments, goals, interdisciplinary team approach [27]

OPIOID PRESCRIBING IN THE ELDERLY

- Interesting findings from the Department of Health and Human Services regarding opioid use in older adults:
  - 1 in 4 Part D beneficiaries received opioids in 2020
  - 43,000 Medicare Part D beneficiaries suffered an opioid overdose from opioids in 2020
  - The number of beneficiaries who received medications to treat opioid use disorder increased, but at a slower rate in 2020 than in prior years

OPIOID PRESCRIBING

- Opioid related deaths in elderly patients
  - 2% of Medicare enrollees 65 years or older meet the diagnostic criteria for substance use disorder
  - In 20 years (2002 to 2021), fatal drug overdoses among people 65 years and older quadrupled from 3 per 100,000 to 12 per 100,000 people

TYING IT ALL TOGETHER: HOW WE CAN MAKE AN IMPACT ON THE OPIOID CRISIS

- Assess resident pain as accurately as possible and reassess regularly
- Be a resident advocate: lowest effective doses of opioids and using alternative pain management options
- Prevent staff diversion

DISCUSSION QUESTIONS

- How do you assess pain in your residents?
- Do you feel like you are able to assess pain in your residents effectively?

DISCUSSION QUESTIONS

- What are your thoughts on the opioid crisis?
- Did anything surprise you to hear?

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