Palliative Pain Management in the Era of the Opioid Epidemic

Stephanie M. Benson, MD, FAAFP

10/23/2021

Disclosures

I have no financial disclosures to share.

This presentation has been reviewed to ensure no commercial bias.

Objectives

1. Define and distinguish acute pain and chronic pain.
2. List five strong opioid analgesics (hydrocodone, oxycodone, morphine, methadone and fentanyl) and describe their benefits, usefulness, and hazards in prescribing for chronic pain.
3. List three common opioid side effects and discuss the pharmacologic management of each.
4. Define neuropathic pain as different from nociceptive pain and discuss three medications useful in managing this type of pain.

Acute Pain

- Normal predicted physiological response to an adverse stimulus
- Result of activation of the pain receptors (nociceptors) at the site of tissue damage.
- Warning signal that something is wrong
- Self-limiting and usually resolves over days to weeks

Anwar K. Pathophysiology of pain. Disease-A-Month [serial online]. September 1, 2016;62(Chronic Pain):324-329. Available from: ScienceDirect, Ipswich, MA. Accessed December 12, 2017.

Acute Pain

- Activates sympathetic branch of the autonomic nervous system to produce hypertension, tachycardia, diaphoresis, shallow respiration, restlessness, facial grimacing, guarding behavior, pallor, and/or pupil dilation
- Can be associated with significant, physical, psychological, and emotional distress
- Inadequately controlled pain can be a factor in the development of chronic pain

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Chronic Pain

- Intractable pain that exits for 3 or more months and does not resolve in response to treatment.
- Can be viewed as its own disease
- Can be affected by physical, environmental, and psychological factors
- May reduce quality of life, well-being, and ability to function over the long-term
- Positive adaptation does not occur
- Does not resolve on its own

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Terminology

- Hyperalgesia: increased response to a stimulus that normally is painful.
- Hypoalgesia: diminished response to normally painful stimuli.
- Analgesia: absence of pain in response to stimulation that normally is painful.
- Hyperesthesia: increased sensitivity to stimulation. Hypesthesia: diminished sensitivity to stimulation.

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Terminology

- Dysesthesia: an unpleasant abnormal sensation, spontaneous, or evoked.
- Paresthesia: an abnormal sensation, spontaneous, or evoked.
- Allodynia: pain resulting from a stimulus (such as light touch) that does not normally elicit pain

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Classification of Pain

- Nociceptive pain - maintained by continual tissue injury
  - Somatic pain
    - Tissue damage to skin, soft tissue, muscle or bone
    - Aching, Gnawing, Deep, Dull, Sharp, stabbing
    - Well localized – patients can often point with one finger to the location of their pain

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Classification of Pain

- Nociceptive pain - maintained by continual tissue injury
  - Visceral pain
    - Pain in the visceral organs such as gallbladder, intestine, liver (may be accompanied by nausea, vomiting or sweating)
    - Cramping, squeezing, Pressure, Full, bloated, All-Over, Gassy
    - Referred:
      - Myocardial infarction – jaw or arm pain
      - Kidney stone – back pain
      - Liver capsule – shoulder
    - Colicky - severe abdominal pain that comes and goes, may come in waves:
      - Bowel obstruction
      - Gallstone
    - Diffuse:
      - Peritonitis
      - Liver metastasis
      - Retroperitoneal adenopathy

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Classification of Pain

- Non-nociceptive pain
  - Neuropathic pain
    - Injury or inflammation of nerves. Often coexists with somatic or visceral pain
    - Burning, Electric, Numb, Radiating, lancing, Shooting, stabbing, Tingling, Hypersensitive skin
    - Idiopathic pain – Unknown etiology
    - Radicular: single or multiple nerve roots, Herpes zoster, Sciatica
    - Stocking-glove: Fingers and toes
    - Diabetic or chemotherapy induced neuropathy

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Classification of Pain

- Cancer-related bone pain
  - Somatic nociceptive and neuropathic components
  - Deep, aching, Localized
  - Intensifies with movement and/or weight bearing
  - Activation of osteoclasts and osteolysis leads to pain and hypersensitivity in the bone and periosteum
  - Cancer within bone marrow causes neuropathic pain and neuroplastic response
  - Nerve growth factor is released causing central sensitization

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Total Pain

- Concept defined by Dame Cicely Saunders
- Describes the psychological, social, emotional, spiritual, and physical experience of pain
- Existential or spiritual pain from impact on patient's sense of control, identity, justice, and meaning
- Social pain from loss of position and role within family and society
- Psychological and emotional pain from fear, depression, anxiety, and demoralization
- Applies the concept of patient centeredness to the understanding of pain and suffering

Davis MP, Dalal S, Goforth H, McPherson ML, Roeland E, Sloan PA. Ed: Shega JW, Paniagua MA. UNIPAC 3: Pain Assessment and Management. Essential Practices in Hospice and Palliative Medicine, 5th ed. AAHPM, Chicago, IL, 2010.

Pain Assessment

Quality:

- What does your pain feel like?
- What words would you use to describe your pain?
- What does your pain feel like?
- Because various pain types are described using different words, what words would you use to describe the pain you are having?

Region and Radiation:

- Where is your pain?
- Where does the pain start?
- Does the pain move anywhere?

Pain Assessment

Aggravating/Alleviating Factors:

- What makes your pain worse?
- What makes your pain better?
- What previous treatment have you tried to relieve your pain?
- Were the treatments effective?

Intensity:

- On a scale of 0 to 10, with O being no pain and 10 being the worst pain you can imagine, how much does it hurt right now?
- How much does it hurt at its worst? How much does it hurt at its best?
- How does the pain compare with other pain you have experienced?

Wong-Baker FACES® Pain Rating Scale

0

No Hurt

2

Hurts Little Bit

4

Hurts Little More

6

Hurts Even More

8

Hurts Whole Lot

10

Hurts Worst

Instructions for Usage

Explain to the person that each face represents a person who has no pain (hurt), or some, or a lot of pain.

Pain Assessment

Temporal Characteristics:

- When did your pain start?
- How often does it occur?
- Has your level of pain changed over time?
- How long does it last?

Functional Impact:

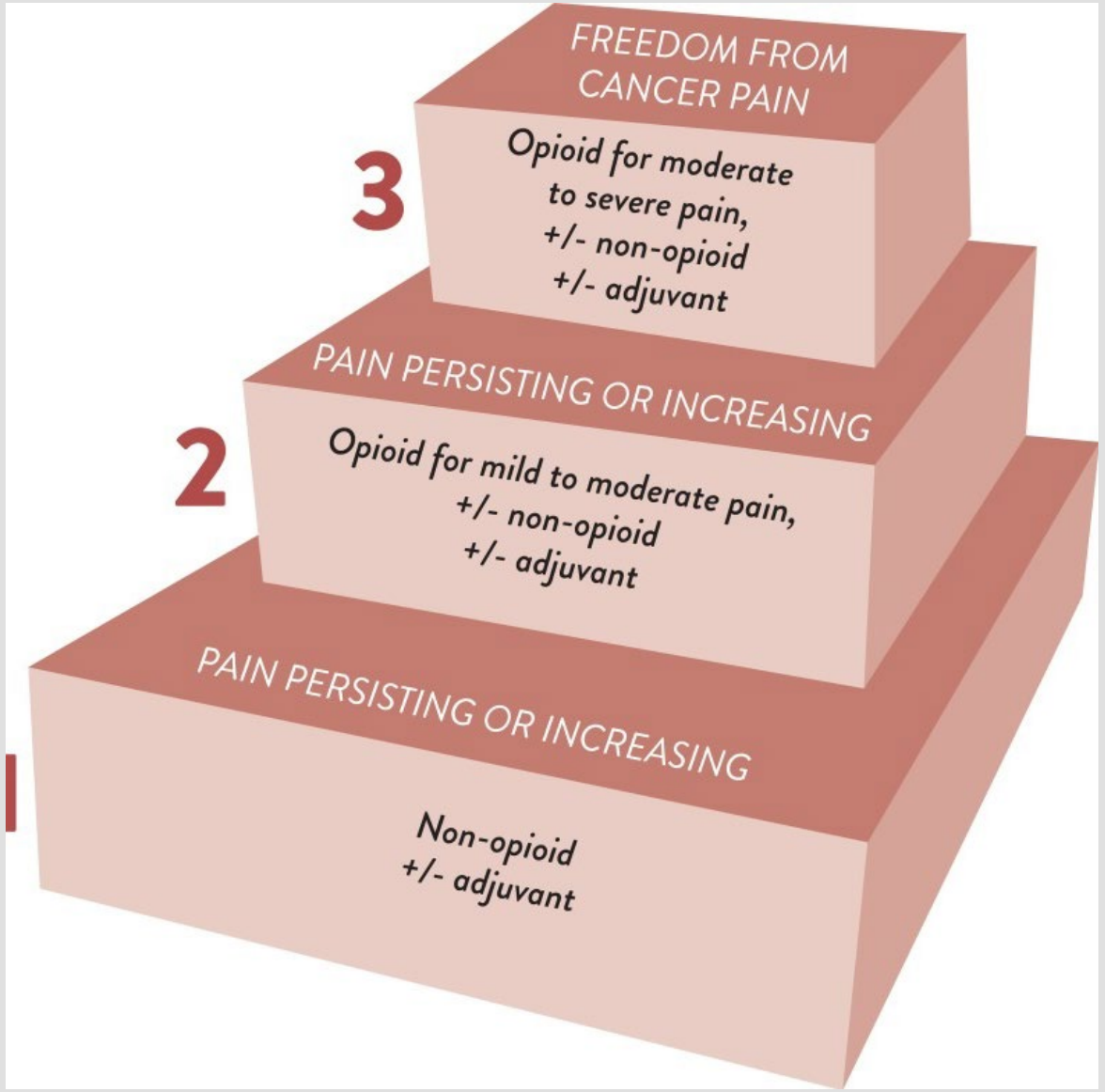
- How does the pain affect your sleep? Your appetite? Your energy level?
- How does the pain affect your normal activities? Your work?
- How does the pain affect your mood?
- How does the pain affect your relationships?

Pain Assessment

PQRSTU METHOD
P- precipitating and palliating factors
Q- quality
R- region and radiation
S- severity
T- temporal
U- you

McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd ed. 2018, ASHP, Bethesda, MD.

WHO Cancer Pain Ladder



Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **mild to moderate somatic and visceral pain** as a single agent or combined with an opioid
- Treats fever, headache, muscle and general pain
- Oral, liquid, rectal and intravenous formulations
- Does not affect platelets

When to Avoid:

- Should NOT be used in patients with liver impairment. MONITOR LIVER TESTS
- Narrow therapeutic ratio: Patients should be cautioned and should NOT use more than 4 gram/day (=8 extra strength tablets per 24 hours) WITH close monitoring or 3 gram/day unmonitored. NOTE: 2 extra strength 500 mg acetaminophen (Tylenol) tabs every 6 hours=4 grams. MINOR increases above recommended doses pose serious risk of hepatic necrosis and death

NOTE: Has no anti-inflammatory properties

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **mild to moderate visceral and somatic pain** as a single agent or combined with an opioid
- Indicated when treating inflammatory states in the musculoskeletal system
- Oral, liquid, topical and intravenous formulations

When to Avoid:

- Bleeding risk, particularly to the gastrointestinal tract
- In combination with other anticoagulants such as warfarin or enoxaparin (Lovenox)
- Low platelet count
- Renal dysfunction
- Diabetes -high risk of renal dysfunction and failure
- Elderly with creatinine clearance under 30ml/min (common in people over 75 years of age)
- Congestive heart failure (additive cardiotoxicity and risk of renal failure)
- If patient is already on corticosteroids (increased bleeding risk with no increase in efficacy)

Increased risk of toxicity can occur in the following situations:

- Higher dose and longer therapy
- Elderly and medically frail patients
- Patients with renal insufficiency
- Patients with prior gastritis, other gastrointestinal bleeding
- Patients on anticoagulation

Long-term use must be weighed in terms of benefit vs. potential risk.

NOTE:

- No NSAID has greater analgesic efficacy or safety profile than any other NSAID
- Celecoxib is the only remaining Cox-2 inhibitor on the U.S. market and has not be demonstrated to have greater analgesic efficacy or safety than other NSAIDs

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe pain** as a single agent or combined with acetaminophen or NSAIDs
- Effective across all **3 pain types (somatic, visceral, and neuropathic)**
- Mainstay for treatment of moderate to severe cancer pain
- Oral, liquid, transbuccal, transdermal, rectal, subcutaneous, intravenous formulations
- Does not affect platelets, renal function, liver function, gastric mucosa

When to Avoid:

- Long-term use of opioids in persistent non-cancer pain without underlying serious illness (e.g. fibromyalgia, chronic low back pain) should only be considered under the supervision of a pain specialist

Key Provisos:

- Drug choice and dosing adjustments are necessary in patients with underlying organ dysfunction (kidney, liver)
- Side effects are manageable for most patients (constipation, nausea, sedation)
- Should be tapered when discontinued

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe neuropathic pain** as a single agent or combined with other synergistic drugs, including gabapentin and pregabalin
- Mainstay for treatment of neuropathic pain though evidence is mixed
- Oral formulations only
- Side effects are manageable for most patients

Key Provisos:

- Dose adjustment in patients with renal failure or renal insufficiency (elderly) for gabapentin and pregabalin
- Can cause sedation, confusion, ataxia, edema
- Drug-drug interactions are generally well-tolerated

Acetaminophen	Non-Steroidal Anti-Inflammatory Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe pain** as a single agent or combined with other synergistic drugs
- Mainstay for treatment of **neuropathic pain and mood disorders**
- Includes tricyclic antidepressants and serotonin-norepinephrine reuptake inhibitors (SNRIs)
- Oral formulation only

When to Avoid:

- Tricyclic Antidepressants: caution in older patients and those with underlying cardiac disease; anticholinergic side effects include QT prolongation, sedation, delirium, constipation, urinary retention and orthostasis.

NOTE: Selective-serotonin reuptake inhibitors (SSRIs) have not been shown to relieve pain.

Acetaminophen	Non-Steroidal Anti-*Inflammatory* Analgesics (NSAIDS)	Opioids	Antiepileptics	Antidepressants	Corticosteroids

When to Use:

- Indicated for **moderate to severe somatic and visceral pain** as a single agent or combined with other synergistic drugs
- Includes dexamethasone (long-acting) and predninsone
- Widely used as a multipurpose analgesic including: bone pain, capsular pain (e.g. liver capsular stretch pain). Headache (raised intracranial pressure), bowel obstruction (due to tumor compression), although evidence base is limited
- Evidence supports the use of corticosteroids for improved appetite, well-being and fatigue
- Oral, liquid, intravenous, rectal subcutaneous, depot intramuscular injection formulations

Serious side effects include:

- Early:
  - Agitation
  - Delirium
  - Hyperglycemia
  - Fluid retention
  - Hypertension
  - Increased risk of infection
- Late:
  - Adrenal insufficiency
  - Myopathy
  - Hyperglycemia
  - GI bleeding
  - Avascular necrosis
  - Osteoporosis and fracture
  - Increased risk of infection

- Should not be combined with NSAIDs-increased risk of GI bleeding with no increase in efficacy

Commonly used opiates

- Morphine
  - IR oral tablet and capsule
  - ER oral tablet and capsule
  - Oral solution, concentrate
  - Rectal suppository
  - Parenteral
- Hydrocodone
  - IR oral tablet in combo with acetaminophen
  - ER oral tablet and capsule
  - Oral solution

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Commonly used opiates

- Hydromorphone
  - IR oral tablet
  - ER oral tablet
  - Oral solution
  - Rectal suppository
  - Parenteral
- Oxycodone
  - IR oral tablet and capsule
  - ER oral tablet
  - Oral solution, concentrate

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Equianalgesic Opioid Dosing

Drug	Equianalgesic Doses (mg)		Considerations
	Parenteral	Oral	
Morphine	10	25	A
Codeine	100	200	B
Fentanyl	0.15	NA	C
Hydrocodone	NA	25	D
Hydromorphone	2	5	E
Meperidine	100	300	F
Methadone	See Chapter 6.		G
Oxycodone	10*	20	H
Oxymorphone	1	10	I
Tapentadol	NA	100	J
Tramadol	100*	120	K

*Not available in the United States.

Equianalgesic data presented in this table are that which are most commonly used by healthcare practitioners, and based on best evidence available, but they are still **approximate**. *The clinician is urged to read the following considerations, along with the information in this text, and use good clinical judgment at all times.*

Remember, these are NOT opioid DOSES for individual patient use; this is equivalency information.

McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd ed. 2018, ASHP, Bethesda, MD.

Fentanyl

- Transdermal, transmucosal, and parenteral formulations
- May only be used in patients receiving at least 60mg oral morphine, 30mg oral oxycodone, 8mg oral hydromorphone, or equivalent daily for at least one week
- TDF should NOT be used for opiate naïve patients
- Conversation is approximately 2:1 for oral morphine to mcg/hr
- TDF takes 12-24 hours for full effect and 12-24 hours to dissipate when patch removed

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Donner Recommended Conversion from Oral Morphine to Duragesic

Recommended Initial Fentanyl Doses Based on Daily Oral Morphine Dosage[22]	
24-Hour Oral Morphine Dose (mg/day)	Transdermal Fentanyl Dose (mcg/hr)
30–90	25
91–150	50
151–210	75
211–270	100
Every additional 60 mg/day	An additional 25 mcg/hr

mcg = micrograms; mg = milligrams.

McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd ed. 2018, ASHP, Bethesda, MD.

Methadone

- Poorly predictable potency with switch from another opiate
- May reverse a component of opioid analgesic tolerance
- Half life can vary from 12 hours to 7 days, average is 24 hours and can lead to accumulation
- Multiple drug-drug interaction due to metabolism by cytochrome P450 system
- 80% oral bioavailability
- QTc prolongation

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Oral Morphine Equivalent per Day	Oral Morphine:Oral Methadone Ratio
<60 mg	Refer to opioid-naïve dosing
60–199 mg OME and patient ≤65 years of age	10:1*
≥200 mg OME and/or patient >65 years of age	20:1*

*Not to exceed 30–40 mg per day regardless of previous opioid dose.[23]

OME = oral morphine equivalent

McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd ed. 2018, ASHP, Bethesda, MD.

Starting and Titrating Opiates

- Starting dose depends on frequency and severity of pain, previous experience with opiates, recent exposure to opiates, age, body weight, and medical status
- Safest approach is to start low dosage of short acting oral formulation
- Initial dosage should be titrated up until either relief achieved or side effects prevent further titration
- Dose usually increased by 25% to 50 % each titration
- Ideally dose escalation should be done at intervals to allow steady state
- Short acting can be used for rapid dose escalation in severe pain

Davis MP, Dalal S, Goforth H, McPherson ML, Roeland E, Sloan PA. Ed: Shega JW, Paniagua MA. UNIPAC 3: Pain Assessment and Management. Essential Practices in Hospice and Palliative Medicine, 5th ed. AAHPM, Chicago, IL, 2010.

Treatment of Breakthrough Pain

- Breakthrough pain occurs in 40-80% of cancer patients
- Treated with breakthrough or rescue doses of short acting medication
- Usually 10-15% of the total baseline daily dose prescribed every 1-2 hours
- Titration may be needed to balance efficacy and side effects
- If needed 3 or more times a day, baseline (regular scheduled or long-acting dose) may need adjustment

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Types of Breakthrough Pain

Type	Characteristics	Pharmacologic Strategies
Incident	Activity related Identifiable precipitant	Use short acting rescue dose if possible Anticipate and premedicate with short acting Optimize baseline regimen
Idiopathic/spontaneous	Unpredictable	Use a short acting rescue dose if possible Optimize baseline regimen
End-of-dose failure	Predictable return of pain before next scheduled dose of medication	Increase the dose or shorten the time between doses of the baseline regimen Use short acting rescue dose

5 A's – Opioid therapy monitoring tool

- Opioid therapy should be monitored by assessing the "5As" of Analgesia therapy
- Activity
  - What progress has been made in the patient's functional goals?
    - Sitting tolerance
    - Standing tolerance
    - Walking ability
    - Ability to perform activities of daily living

Executive Committee of the Federation of State Medical Boards of the United States, Inc. Model policy on the use of opioid analgesics in the treatment of chronic pain. July 2013. (Sourced 25/2/14) www.fsmb.org/pdf/pain_policy_july2013

Table 2. Suggested Pain Reduction and Functional Assessment

Pain Reduction

- Decrease in emergency room visits
- Attain pain-free hours or days
- Extend time between flares
- Decrease severity of flares
- Use less medication to break a flare
- Reduce bed- or couch-bound days
- Extend hours of continuous sleep

Function

- Eat 3 meals a day
- Leave house for walks, socializing, or vacation
- Complete household tasks
- Read newspaper/books
- Increase physical movement and range of motion
- Number of steps in a specific time period
- Achieve regular sleep pattern
- Do daily walking or exercise
- Participate in regular social activities
- Practice appropriate hygiene and sanitation

Tennant F. Moving beyond pain scales: Building better assessment tools for today's pain practitioner. Practical Pain Management 2016;38-41.

5 A's – Opioid therapy monitoring tool

- Analgesia
  - How does the patient rate the following over the last 24 hours? E.g., on a scale from 0 to 10, where 0 = no pain, 10 = worst pain imaginable
    - Average pain ?
    - Worst pain ?
    - How much relief have pain medications provided? e.g., 10%, 20%, 30% or more?
- Adverse effects
  - Has the patient experienced any adverse effects from medication? E.g., constipation, nausea, dizziness, drowsiness

Executive Committee of the Federation of State Medical Boards of the United States, Inc. Model policy on the use of opioid analgesics in the treatment of chronic pain. July 2013. (Sourced 25/2/14) www.fsmb.org/pdf/pain_policy_july2013

Table 3. Autonomic Nervous System Signs of Under- and Overmedication	
Under	**Over**
Elevated Blood Pressure	Low Blood Pressure
Elevated Pulse Rate	Low Pulse Rate
Dilated Pupils	Constricted Pupils
Alert Affect	Dull Affect
Hyperreflexia	Hyporeflexia
Cold Extremities	Hot Extremities
Hyperhidrosis	Dry Skin
Eyelids Elevated	Droopy Eyelids
Normal Speech	Slow, Slurred Speech

Tennant F. Moving beyond pain scales: Building better assessment tools for today's pain practitioner. Practical Pain Management 2016;38-41.

5 A's – Opioid therapy monitoring tool

- Aberrant behaviors
  - Has the patient been taking medication/s as prescribed?
  - Has the patient exhibited any signs of problematic behaviors or medication abuse/misuse?
    - Signs of drug and alcohol use
    - Unsanctioned dose escalations
    - Has the patient reported lost prescriptions or requested early repeats?
- Affect
  - Have there been any changes to the way the patient has been feeling?
    - Is pain impacting on the patient's mood?
    - Is the patient depressed or anxious?

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Managing Opiate Side Effects

- Xerostomia
- Urinary dysfunction
- Constipation
- Nausea and vomiting
- Somnolence
- Delirium
- Mood disorders
- Myoclonus
- Disordered breathing

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Drug Therapy Monitoring Plan

	Subjective	Objective
Therapeutic Efficacy	• ??	• ??
Potential Toxicity	• ??	• ??

Subjective Parameters:
Data are from the patient's point of view ("symptoms") including feelings, perceptions and concerns obtained through interviews.

Objective Parameters:
Data that are observable and measurable ("signs") obtained through observation, physical examination, and laboratory and diagnostic testing.

Drug therapy monitoring plan

	Subjective parameters	Objective parameters
Monitoring for therapeutic effectiveness	• Pain rating • Patient subjectively states he or she is better able to perform ADLs, sleep, ambulate, etc.	• Patient objectively reports here she sleeps longer and does not awaken in pain • Patient can objectively ambulate further without pain • Limited use of rescue opioid
Monitoring for potential toxicity from an opioid	• Complaints of constipation, nausea, sedation, dizziness, confusion, itching, hallucinations, vomiting, dry mouth, urinary retention, sweating, rash, or hives	• Level of arousal/sedation • Unstimulated respiratory rate; pattern and depth of respiration • Pinpoint pupils • Bowel movement frequency • Episodes of emesis • Mini-mental state exam • Hours spent sleeping • Signs of excoriation

McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd ed. 2018, ASHP, Bethesda, MD.

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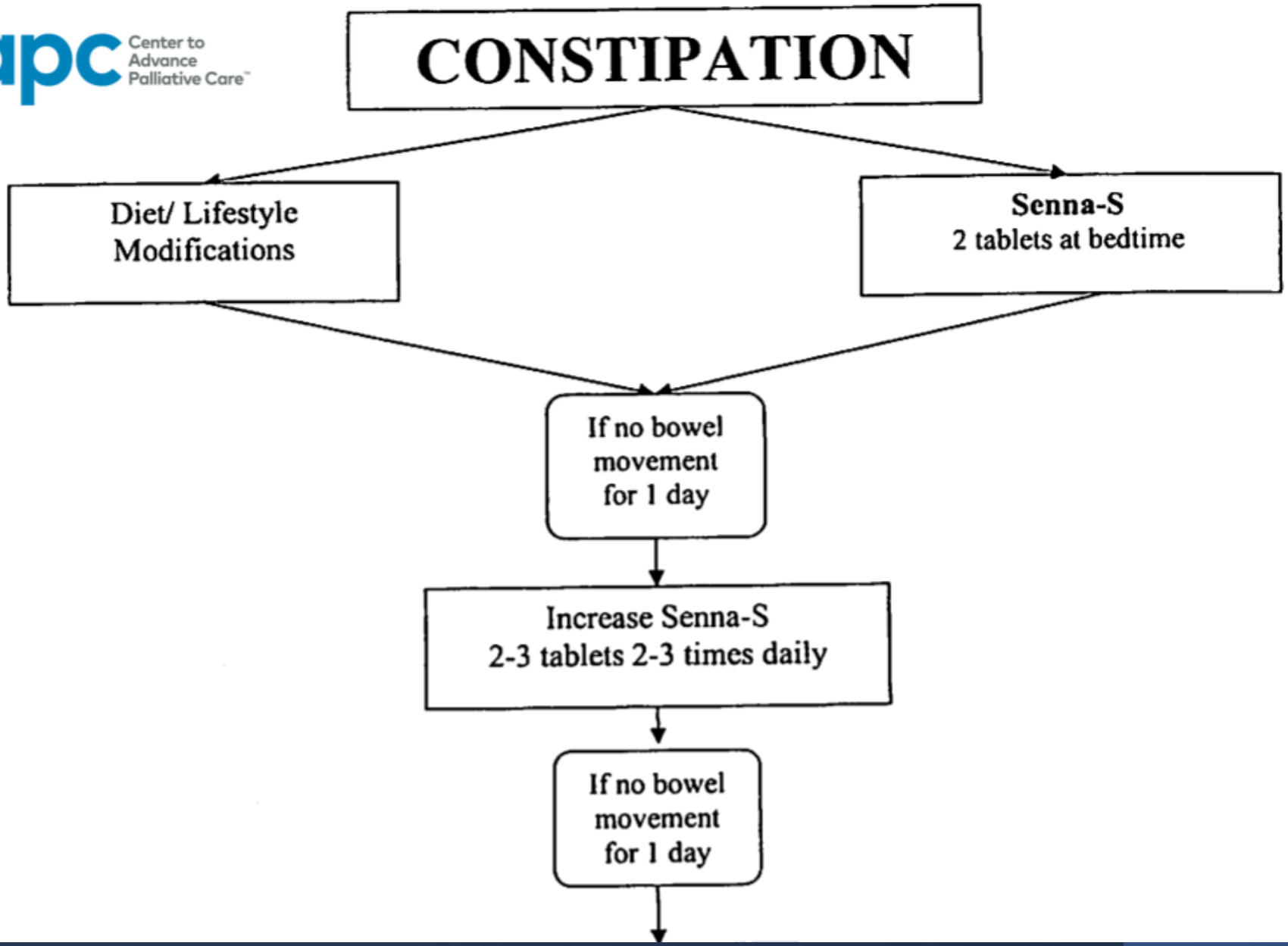

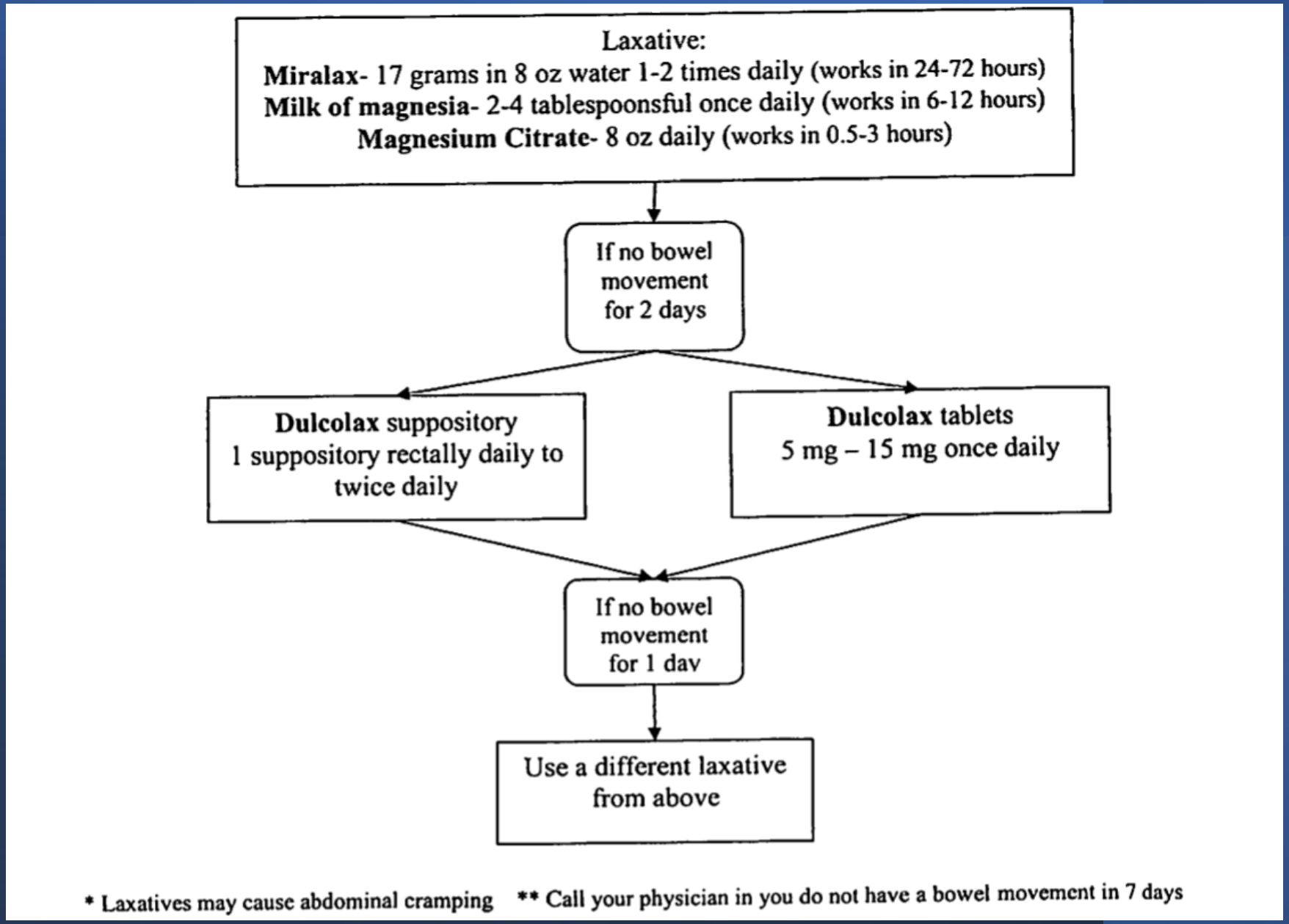

* Laxatives may cause abdominal cramping ** Call your physician in you do not have a bowel movement in 7 days

Adjuvant Therapies

- Interventional
- Rehabilitative
- Psychological
- Neurostimulation
- Complimentary/integrative

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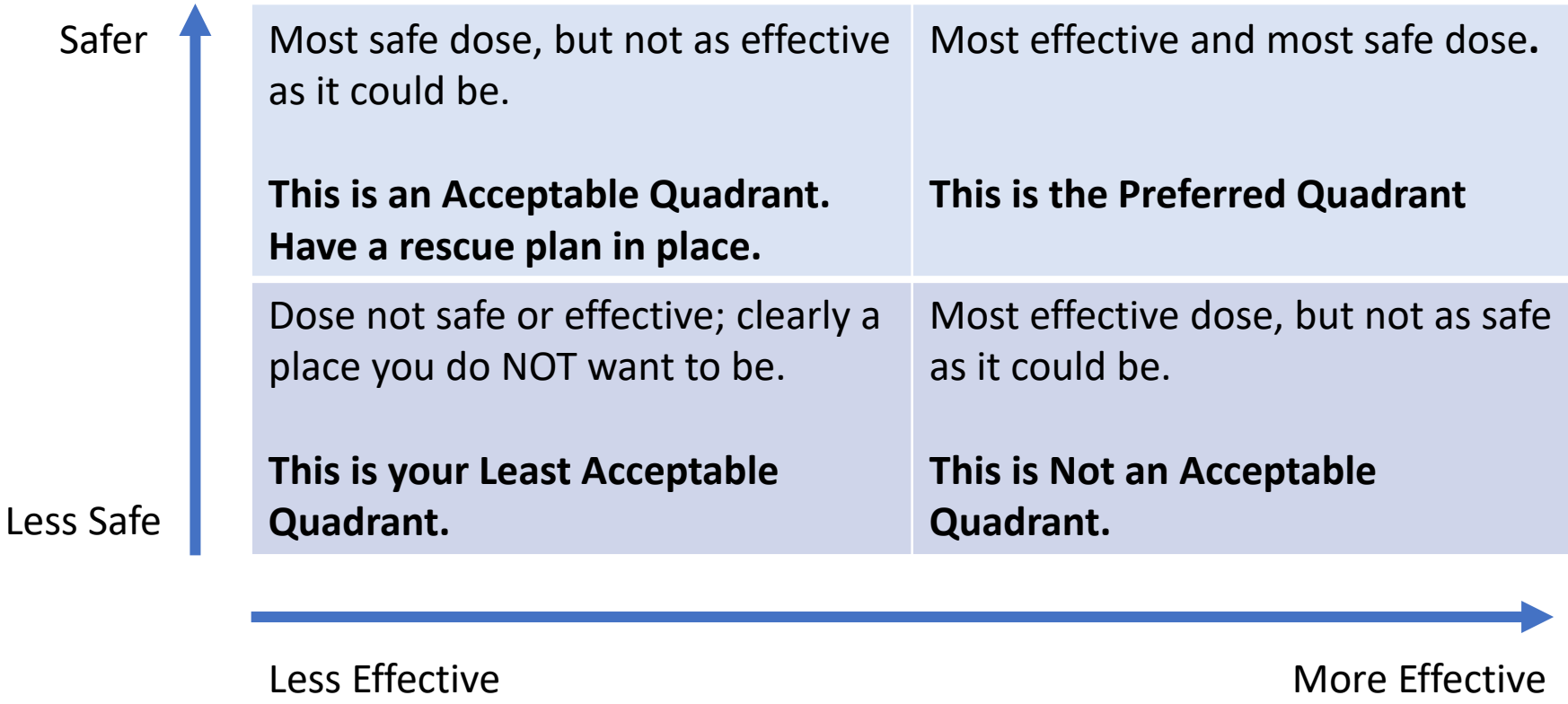
Opiate Conversion



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Opiate Conversion

Five Step Approach to Opioid Conversion
Step 1- Globally assess the patient to determine if uncontrolled pain is secondary to worsening of existing pain or development of a new type of pain.
Step 2- Determine the total daily usage of the current opioid. This should include all long-acting and breakthrough opioid doses.
Step 3- Decide which opioid analgesics will be used for the new agent and consult the established conversion tables to arrive at the proper dose of the new opioid, recognizing the limitations of the data.
Step 4- Individualize the dosage based on assessment information gathered in Step 1 and ensure adequate access to breakthrough medication.
Step 5- patient follow-up in continual reassessment, especially during the 1st 7-14 days, to fine tune the total daily dose (long-acting + short-acting) and increase or decrease the around the clock long-acting dosage accordingly.

Gammaitoni AR, Fine P, Alvarez N, McPherson ML, Bergmark S. Clinical application of opioid equianalgesic data. Clin J Pain. 2003;19(5):286-297.

Equianalgesic Opioid Dosing

Drug	Equianalgesic Doses (mg)		Considerations
	Parenteral	Oral	
Morphine	10	25	A
Codeine	100	200	B
Fentanyl	0.15	NA	C
Hydrocodone	NA	25	D
Hydromorphone	2	5	E
Meperidine	100	300	F
Methadone	See Chapter 6.		G
Oxycodone	10*	20	H
Oxymorphone	1	10	I
Tapentadol	NA	100	J
Tramadol	100*	120	K

*Not available in the United States.

Equianalgesic data presented in this table are that which are most commonly used by healthcare practitioners, and based on best evidence available, but they are still **approximate**. *The clinician is urged to read the following considerations, along with the information in this text, and use good clinical judgment at all times.*

Remember, these are NOT opioid DOSES for individual patient use; this is equivalency information.

Assessment for Risk of Misuse

- **Opioid Risk Tool (ORT)**
- 5-item yes/no questionnaire, predicts probability of opioid misuse or abuse
- Asks about family history of substance abuse, personal history of substance abuse, age (16-45 years is a risk factor), history of pre-adolescent sexual abuse, and psychological disease
- Stratifies patients as low, medium or high risk
- Most useful in lower-risk settings, like primary care rather higher risk settings as it is more likely to rule in risk than rule it out and patients may not fully disclose information

Moore TM, et al. A comparison of common screening methods for predicting aberrant behavior among patients receiving opioids for chronic pain management. Pain Med. 2009; 10:1426-1433.

Assessment for Risk of Misuse

- **Screener and Opioid Assessment for Patients with Pain (SOAPP)**
- 14-item self-report, predicts risk of aberrant drug behavior
- Includes things like antisocial behavior, substance abuse history, doctor/patient relationship, medication-related behaviors, and psychiatric and neuro-biologic need for medicine
- Responses on a 5-point Likert scale (possible score range 0-56)
- Using 7 as cut off, has a sensitivity of 91%, specificity of 69%
- Positive predictive value (PPV) of 71% and negative predictive value (NPV) of 90% (7) to predict aberrant drug behavior

Moore TM, et al. A comparison of common screening methods for predicting aberrant behavior among patients receiving opioids for chronic pain management. Pain Med. 2009; 10:1426-1433.

Pain Management for Patients with History of Substance Use Disorder

Patients with history of substance use disorder are just as deserving of high-quality palliative care and hospice

Pain medications should not be withheld from patients with history of substance use disorders

A clear discussion of risks and benefits should be had with the patient and the family prior to initiation of opiates for any patient

Close monitoring and prescription of more frequent small supplies may be beneficial

Collins CA. The dog ate my morphine: An interdisciplinary intervention model for in-home medication diversion . Joint Clinical Conference Reporter 2003;1(1):8-10. Provided with permission of HPNA.

Assessment for Misuse in Patients on Opiates

- **Opioid Risk Tool-Opioid Use Disorder (ORT-OUD)**
- 9 item questionnaire, yes and no questions
- Can be completed quickly, easy to score
- Abbreviations and “Rx” are used in the tool – this may not be understood by all patients making it important for the clinician to administer this
- Meant for adults receiving long-term opioid treatment for chronic pain for six months or longer
- Score of 3 or higher found to have a sensitivity of 85% and a specificity of 85% for identifying a person at high risk for opioid use disorder

Cheatle MD, Compton PA, Dhingra L, Wasser TE, O'Brien CP. Development of the Revised Opioid Risk Tool to Predict Opioid Use Disorder in Patients with Chronic Nonmalignant Pain. J Pain. 2019;20(7):842-851.

Assessment for Misuse in Patients on Opiates

- **Current Opioid Misuse Measure (COMM)**
- 17 items, 5-point Likert scale, total score range of 0-68
- Items about function, psychologic/behavioral issues, perceived pain control, and cognitive issues
- >/= 9 means risk of abuse or misuse exists and needs further assessment
- A cutoff score of 9 yielded a sensitivity of 94% and a specificity of 73%, better at ruling out misuse than ruling it in

Butler SF, Budman SH, Fernandez KC, et al. Development and validation of the Current Opioid Misuse Measure [published correction appears in Pain. 2009 Mar;142(1-2):169]. Pain. 2007;130(1-2):144-156.

IDT model for addressing diversion

- STEP 1: Problem Identification
- STEP 2: Goals and Intervention Formulation
- STEP 3: Building Interdisciplinary Coalition
- STEP 4: Offering the Choices
- STEP 5: Implementing the Choices and Their Consequences
- STEP 6: Evaluating the Effects
- STEP 7 (if needed): Doing it All Again if the Choice Cannot Be Maintained

Collins CA. The dog ate my morphine: An interdisciplinary intervention model for in-home medication diversion . Joint Clinical Conference Reporter 2003;1(1):8-10. Provided with permission of HPNA.

"Red Flags" Suggesting Possible Drug Diversion in the Home

- Medications
  - Patient/family unable to find
  - Pharmacy did not dispense enough
  - Dropped on floor
  - Dog/cat, etc, ate medication
  - Run out at night/weekends when nurse not available
  - Medications present that team or physician did not order
- Family/patient behavior
  - Multiple physicians/pharmacies
  - Family members under influence
  - Patient/family members have extensive drug knowledge PDR in home
  - Patient hoards medications
  - Patient protects medications from family members
  - Estranged family members
  - Family cannot go to establishments because of history (eg, shoplifting at the pharmacy)
  - Vague regarding sources of income
  - Calls nurse the "narcotics police"
  - Uncomfortable with nurse counting medications

Collins CA. The dog ate my morphine: An interdisciplinary intervention model for in-home medication diversion . Joint Clinical Conference Reporter 2003;1(1):8-10. Provided with permission of HPNA.

"Red Flags" Suggesting Possible Drug Diversion in the Home

- Environment
  - Drug paraphernalia present
  - Requests to get out of court hearing, jail, probation/parole requirements
  - Camera on doorstep or extensive security measures
  - Bare cupboards, empty refrigerator
  - Weapons readily accessible/visible
  - Aggressive animals (rottweilers and pit bulls) in house "for protection"
  - Large amounts of cash around house
  - Minimal furniture, new entertainment equipment, many pagers/answering machines
  - Many roommates, people coming and going
- System
  - Physician will not prescribe, or only prescribe in limited amount, not early, or only if he/she sees patient
  - Copy company calls—"We found a prescription on a copier with your clinic's name on it"
  - Patient not allowed in or welcome at the emergency department
  - Other hospices will not accept patient

Collins CA. The dog ate my morphine: An interdisciplinary intervention model for in-home medication diversion . Joint Clinical Conference Reporter 2003;1(1):8-10. Provided with permission of HPNA.

Difficult to Treat Pain

Opiate induced hyperalgesia- increasing pain and sensitization caused by complex multifactorial neurobiological factors in a patient who is receiving increasing doses of opiates.

Opioid-induced tolerance- decreasing efficacy of opiates over time caused by desensitization of antinociceptive opioid pathways to opiates.

Opioid non-responsive pain-types of pain, such as neuropathic pain, ulceration pain, muscle pain, bladder spasm, and rectal tenesmus, that does not usually respond to treatment with opiates.

Table of Similarities and Differences

	opioid-induced hyperalgesia	**opioid-induced tolerance**	**opioid non-responsive pain**
Requires thorough pain assessment	X	X	X
Could include allodynia and hyperalgesia	X	X	X
Only seen with prolonged opiate use		X	
May respond to rotation of opiates	X (particularly methadone or fentanyl)	X	
May respond to NMDA antagonists (ketamine)	X		X
May respond to ultra-low dose of naloxone		X	
Pain worsens with increase in opiate	X		
Pain may decrease with a reduction in opiate dose	X		
Could benefit from addition of a non-opiate adjuvant medication	X	X	X
Pain extends beyond original distribution of pain	X		
Presence of other hyperexcitability signs and symptoms	X		

Do CDC Pain Treatment Guidelines Still Apply?

- Misapplication of the guidelines lead to inappropriate tapering, undertreatment of cancer related and post op pain, and increased harm for those on medication assisted treatment for opiate use disorders
- The CDC offered modifications and clarifications
- Like all guidelines, the needs of individual patients and specific clinical characteristics must be considered.

Do CDC Treatment Guidelines Still Apply?

	Recommendation	Applies to hospice and palliative care (Y/N)	Applies completely, partially or not at all
1	Opioids are not first-line or routine therapy for chronic pain	No	Not at all. The recommendations state this applies to chronic pain "outside of active cancer, palliative, and end of-life care"
2	Establish and measure goals for pain and function	Yes	Completely. We should always establish goals for pain control and function.
3	Discuss benefits and risks of opioid therapy with patient	Yes	Completely. We should discuss risks and benefits of any pharmacologic agent we use for any reason.
4	Use immediate-release opioids when starting	Yes	Completely. We should always start with short acting agents first to establish needs even if we are going to switch to LA/ER
5	Start low and go slow	Yes	Partially. The recommendations state this "When opioids are used for chronic pain outside of active cancer, palliative, and end-of-life care." however, even in those settings, though we may titrate doses up more quickly, we still need to ensure patient safety.
6	When opioids are needed for acute pain, prescribe no more than needed	Yes	Partially. They expand this rec by saying, "prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids". It may be appropriate in hospice and palliative care to prescribe more than is needed at that moment to allow for titrating doses for episodes of severe sudden pain in the hospice patient.

Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49

Do CDC Treatment Guidelines Still Apply?

	Recommendation	Applies to hospice and palliative care (Y/N)	Applies completely, partially or not at all
7	Do not prescribe ER/LA opioids for acute pain	Yes	Partially. In general, I believe this is true but there may be instances where an acute severe pain episode required long-acting medication in the dying patient.
8	Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed.	Yes	Completely. We need to continually evaluate risks and benefits of our therapies and adjust if unwanted toxicities or risk cannot be mitigated. Our state law requires rx for naloxone be given with no exception for palliative care or hospice patients.
9	Check PDMP for high dosages and prescriptions from other providers	Yes	Partially. Always ideal but should not preclude the prescribing of opiate medications for a hospice patient. I do this more consistently for palliative care patients but not hospice patients.
10	Use urine drug testing to identify prescribed substances and undisclosed use.	No	Partially. Our state law requires this every 6 mos with exception for hospice patients only. It creates potential confusion for patients and families.
11	Avoid concurrent benzodiazepine and opioid prescribing	No	Partially. We should be aware of the risks of this combination but often in palliative care and hospice, the benefit outweighs the risk when we use them judiciously.
12	Arrange treatment for opioid use disorder if needed	No	Partially. If we are treating a patient in palliative care who has a known opiate use disorder, we may need seek treatment options, I don't think I would do this in the setting of hospice, but we would need to be safe in our care of the patient.

Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49

Conclusions

1. Acute pain and chronic pain are different phenomena and should be managed accordingly
2. There are multiple opioid analgesics with different benefits, usefulness, and hazards
3. Patients on opioids should be monitored for side effects and treatments added or adjusted to manage those side effects.
4. Neuropathic pain and other types of opioid poorly responsive pain should be managed with other medications and modalities

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