

# Pain Palliation

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PCM-3

December 13, 2023

# Objectives

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- Elicit a pain history from a patient
- Begin formulating a management plan for pain

# To Palliate

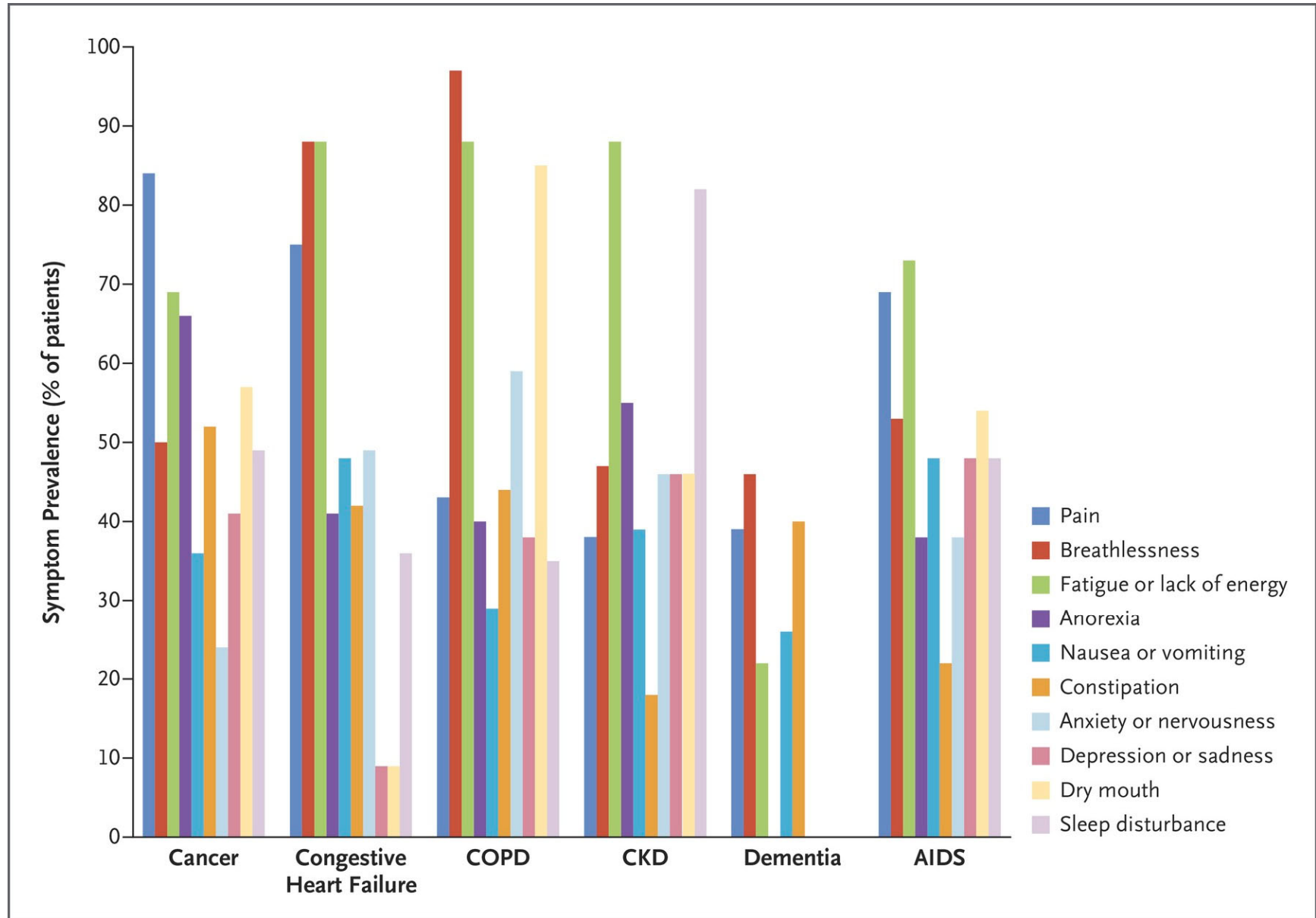
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## Definition:

- *to ease (symptoms) without curing the underlying disease*
- Merriam-Webster Dictionary



# Symptom Prevalence in Advanced Illness



N Engl J Med 2015; 373:747-755

# PAIN

Behavioral Medicine and  
Development Course

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## **NSAIDs: Non-Steroidal Anti-Inflammatory drugs**

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## INTRODUCTION TO THE PHARMACOLOGY OF OPIOID DRUGS

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## Using Acupuncture to Explore the Neuropharmacology of the Pain Pathway



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“Pain is whatever the person experiencing it  
says it is”

*(Margo McCaffery, RN)*

# General Principles for Pain Management

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Assess pain thoroughly – Hx and PE

Let the patient tell their story

Determine the type of pain

Select nonpharmacologic and pharmacologic treatment options

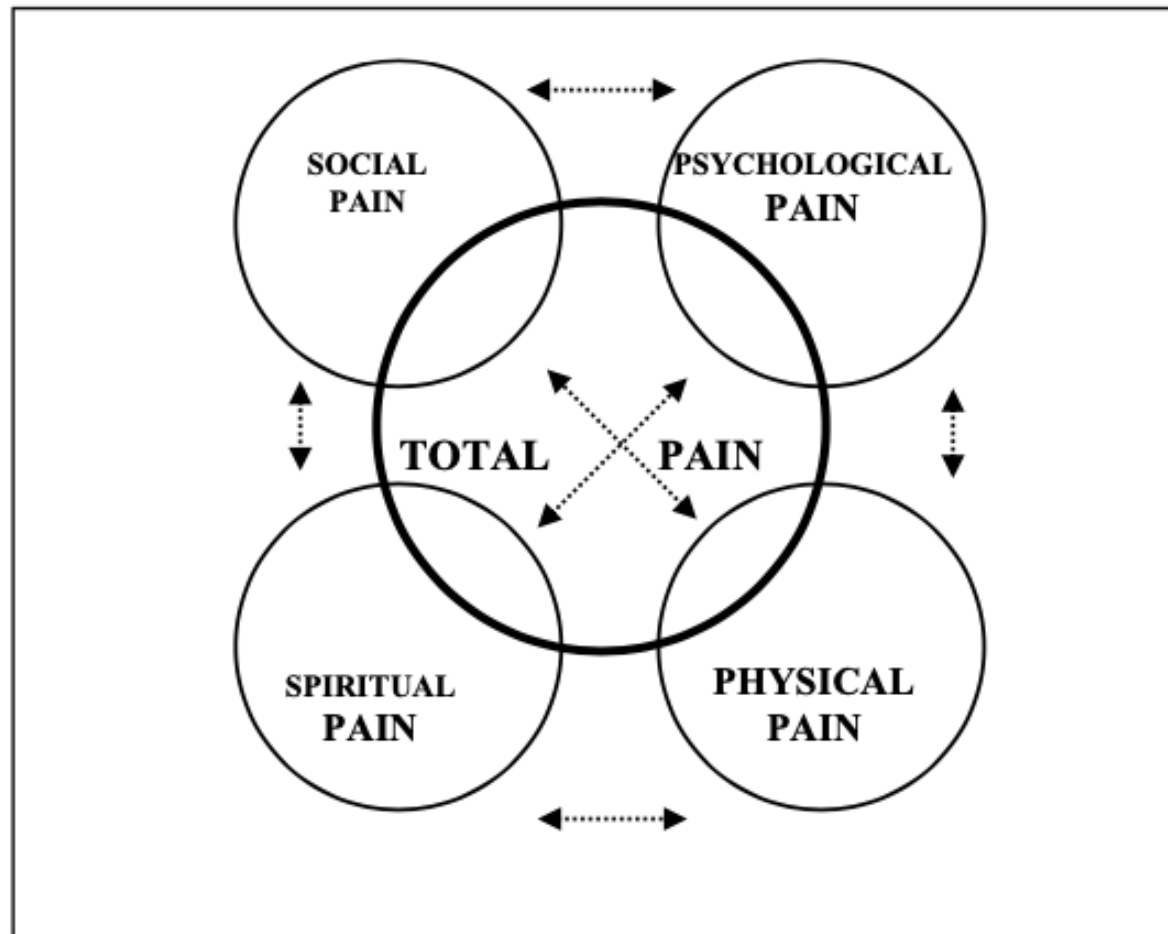
Focus on Function

Reassess frequently

# Total Pain

*Cicely Saunders*

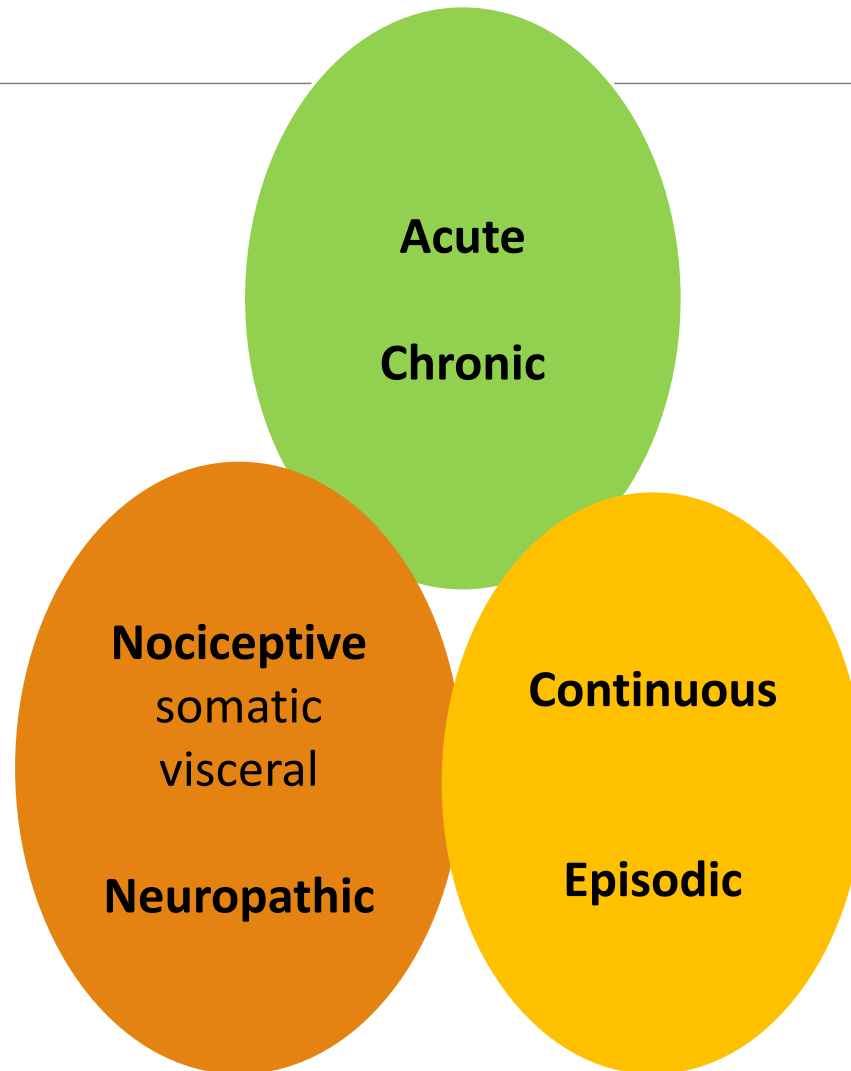
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# “Physical Pain”

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| Type of pain                        | How patients describe it  | Examples   |
|-------------------------------------|---|--|
| Nociceptive<br><b>Somatic Pain</b>  | <ul style="list-style-type: none"> <li>-Sharp, dull, often aching</li> <li>-Familiar (ie “toothache”)</li> <li>-May be exacerbated by movement “incidental pain”</li> <li>-Well localized and consistent with underlying lesion</li> </ul>  | <ul style="list-style-type: none"> <li>-Metastatic bone pain</li> <li>-Post surgical pain</li> <li>-Musculoskeletal pain</li> <li>-Arthritis Pain</li> </ul> |
| Nociceptive<br><b>Visceral pain</b> | <ul style="list-style-type: none"> <li>-Arises from distention of an hollow organ</li> <li>-Poorly localized, deep, squeezing, crampy</li> <li>-Often associated with autonomic sensations: nausea, vomiting, diaphoresis</li> <li>-May be referred</li> </ul>                            | <ul style="list-style-type: none"> <li>-Pancreatic cancer</li> <li>-Intestinal obstruction</li> <li>-Intraperitoneal metastases</li> </ul>                   |
| Neuropathic pain                    | <ul style="list-style-type: none"> <li>-Patients may struggle to describe it, unfamiliar</li> <li>-“burning, electrical, numb”</li> <li>-Innocuous stimuli may bring on pain (allodynia)</li> <li>-May have paroxysms of electrical sensation (lancinating or lightning pains)</li> </ul> | <ul style="list-style-type: none"> <li>Trigeminal neuralgia</li> <li>Postherpetic neuralgia</li> <li>Diabetic neuropathy</li> </ul>                          |

# What if patient is

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Infant, young child

Nonverbal

Cognitively impaired

Unresponsive



## ***Behavioral Pain Assessments***

# Nonpharmacologic Therapies

- ▢ **Heat**
- ▢ **Cold application**
- ▢ **Massage therapy**
- ▢ **Physical therapy**
- ▢ **Transcutaneous electrical nerve stimulation  
(TENS)**
- ▢ **Spinal cord stimulation (SCS)**
- ▢ **Aromatherapy**
- ▢ **Guided imagery**
- ▢ **Laughter**
- ▢ **Music**
- ▢ **Biofeedback**
- ▢ **Self-hypnosis**
- ▢ **Acupuncture**

# Pharmacologic Management: WHO 3-Step Analgesic Ladder

| <u>Step 1 -<br/>Mild</u> |  | <u>Step 2 -<br/>Moderate</u>       | <u>Step 3 -<br/>Severe</u>                       |
|--------------------------|--|------------------------------------|--|
| Aspirin                  |  | Codeine/ ...                       | Morphine   |
| Acetaminophen            |  | Hydrocodone<br>/ ...               | Hydromorphone                                    |
| NSAIDs                   |  | Oxycodone/<br>...                  | Methadone  |
|                          |  | .../ acetamino<br>phen or<br>NSAID | Oxycodone  |
|                          |  | Tramadol                           | Fentanyl   |
|                          |  |                                    | <i>Always consider adding an<br/>adjuvant Rx</i> |

# “Adjuvant Analgesic”

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*Drug which has a primary indication other than pain management*

Acts as analgesic in certain painful conditions

- Antidepressants
- Anticonvulsants
- Corticosteroids
- Muscle relaxants
- Benzodiazepines
- Osteoclast inhibitors
- Radiopharmaceuticals

# OPIOIDS

**Opiates** refer to natural opioids such as heroin, morphine and codeine.

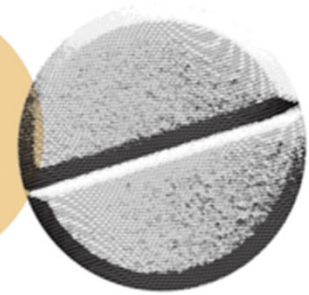
**Opioids** refer to all natural, semisynthetic, and synthetic opioids.

**In 2021, approximately 80,411 people died from an overdose involving an opioid.**

➔ Source: Centers for Disease Control and Prevention

As many as

**1 in 4**



patients receiving long-term **opioid therapy** in primary care settings



struggle with **opioid use disorder**.

# Opioids for Patients with Serious or Life-Limiting Illness

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## Routes of administration

- **Oral**, Intravenous
  - subcutaneous, transdermal, transmucosal, rectal, spinal

## Oral Opioid formulations

- Immediate Release
- Extended release



# Immediate Release Oral Opioids

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Administered as

- single agents
- combination products

**Peak** analgesic effect in 60-90 minutes

Expected total **duration** of analgesia 3-4 hours



Single agent

- Generally q 4 hour dosing
  - “as needed” for episodic pain
  - “scheduled” for continuous pain

# Combination opioid/nonopioid

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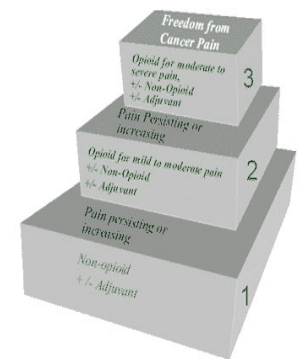
>50 different combination products

- Contain acetaminophen, aspirin or ibuprofen, with an opioid
  - Hydrocodone 5mg/acetaminophen 325mg tablets; hydrocodone 10/325mg tablets; hydrocodone 7.5mg /acetaminophen 325mg per 15 ml solution
- Range of tablet strengths and liquid concentrations
- Typically used for moderate pain that is episodic
  - Generally Q 4 hours PRN dosing
  - For continuous pain administered on around-the-clock basis

The dose limiting property of all the combination products is?

- aspirin, acetaminophen or NSAID

WHO's Pain Relief Ladder



# Extended-release opiate preparations

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## Morphine

- Morphine ER, MS Contin, Kadian, Avinza

## Oxycodone

- Oxycodone ER, Oxycontin

## Fentanyl

- Transderm patch (Duragesic)

## Hydrocodone, Hydromorphone

# Extended-release opiate preparations

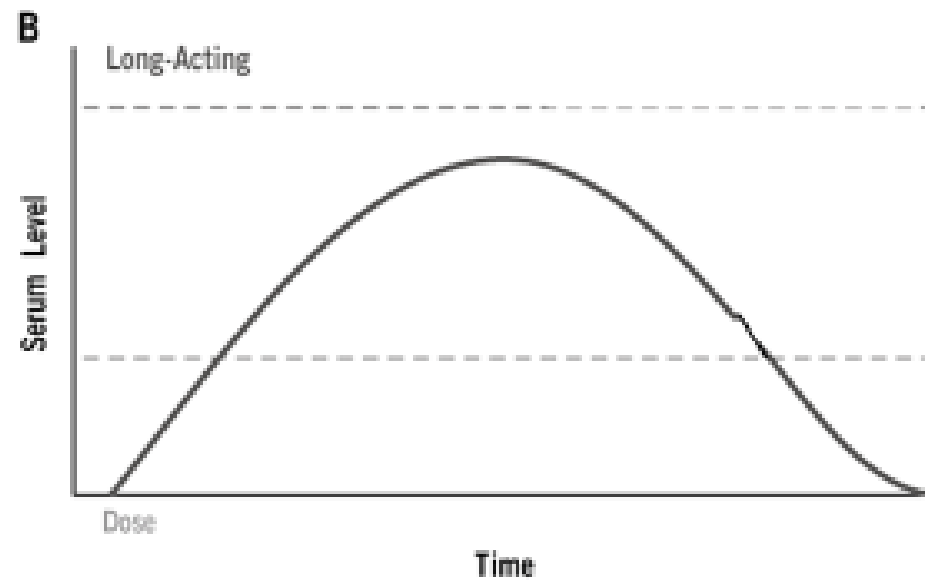
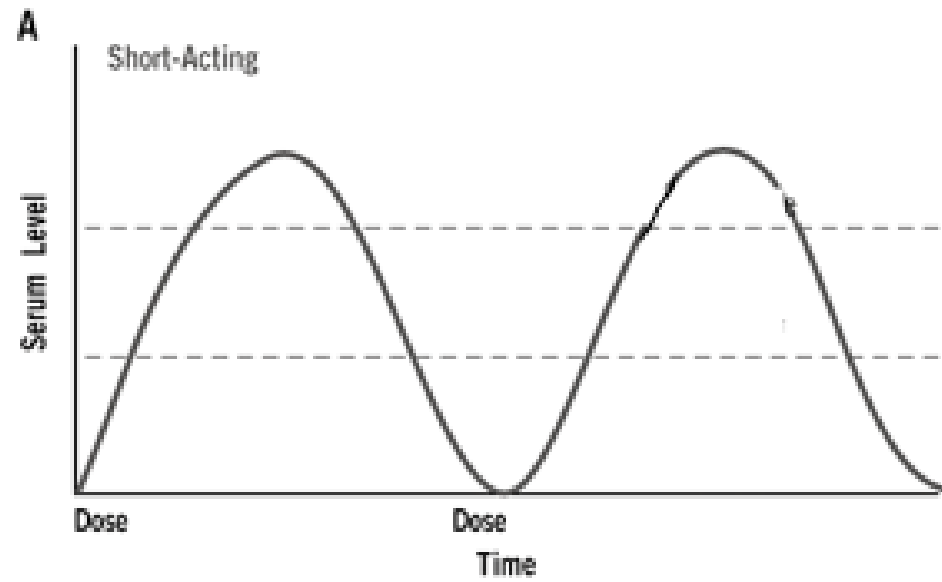
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Dose q 8, 12, or 24 h (product specific)

Adjust dose q 2–4 days (once steady state reached)

Fentanyl transderm q 72 hours

- Adjust dose at 6 days (once steady state achieved)



Recommend immediate release  
opioid for “Breakthrough Pain”

# Important Tool – Equianalgesic Table

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## Equianalgesic Dose

| Drug Name     | Oral (mg) | Parenteral (mg) |
|---------------|-----------|-----------------|
| Morphine      | 30        | 10              |
| Hydromorphone | 7.5       | 1.5             |
| Oxycodone     | 20        | N/A             |
| Hydrocodone   | 30        | N/A             |

# Opioid Side Effects

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Constipation

- *He/She who writes the opioid prescription writes the bowel regimen*

Nausea, vomiting

Urinary Retention

Pruritus

Lethargy, mental clouding

Somnolence

Respiratory Depression

Hypogonadism

Secondary adrenal insufficiency

# Case

A 62-year old female with a history of breast cancer presents with 10/10 back pain.

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## OPQRSTU

O - onset

P – precipitating, palliating, previous treatment

Q – quality

R – region, radiation

S – site, severity

T – timing

U – (you) – impact on ADLs, quality, enjoyment



# Case

HPI: A 62-year old female with hx breast cancer presents with 10/10 back pain and is diagnosed with new multiple level vertebral metastases.

Taking 2 tablets oxycodone/acetaminophen 5/325mg nearly every 4 hours x two weeks.

Pain is constant ache throughout spine, worse in mid-back. Occasionally pain feels like it is shooting down right leg

Rates pain ~-3-4/10 after "pain medicine kicks in" and then increases back up to 9-10/10. When pain is this severe pt cannot do "anything" but hope the pain gets better.

PMHx: bleeding duodenal ulcer; diabetic nephropathy with CKD stage 3

Which of the following is the best next step in this patient's pain management?

- a. Increase the oxycodone/acetaminophen 5/325 to 3 tablets PO every 4 hours
- b. Change to 2 tablets hydrocodone/acetaminophen 5/325 PO every 4 hours
- c. Change to sustained release oxycodone 30mg capsules PO every 12 hours
- d. Change to oxycodone extended release 30mg capsules PO every 12 hours with oxycodone 7.5mg PO for breakthrough pain every 2 hours as needed
- e. Change to hydromorphone 4mg tabs PO every 4 hours

- f. Begin Ibuprofen 600mg PO every 6 hours

| Drug Name     | Oral (mg) | Parenteral (mg) |
|---------------|-----------|-----------------|
| Morphine      | 30        | 10              |
| Hydromorphone | 7.5       | 1.5             |
| Oxycodone     | 20        | N/A             |
| Hydrocodone   | 30        | N/A             |

- g. Begin gabapentin 100mg PO tid

- h. Change oxycodone/acetaminophen to oxycodone 15mg PO q 4 hours

- i. Consult Radiation Oncologist

# Key points:

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Treating pain is an ethical imperative

Prescribing opioids responsibly is an ethical imperative

Balance benefits vs side effects of pharmacologic therapy

If using opioids

- Benefits of opioids outweigh potential risks
- Control uncontrolled pain with short acting opioids
- Long-Acting Opioids
  - For chronic, around the clock pain
  - Begin once pain is controlled with short acting agents
    - Need short acting opioid for breakthrough pain

Use of adjuvants when appropriate

