Palliative Clinical Pearls for Pain Management

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Objectives

- Differentiate between palliative care and hospice settings for pain management
- Describe approach for shared pain assessment and goal-setting for pain management
- Utilize the Equianalgesic Table to convert between morphine, hydrocodone, oxycodone, and hydromorphone

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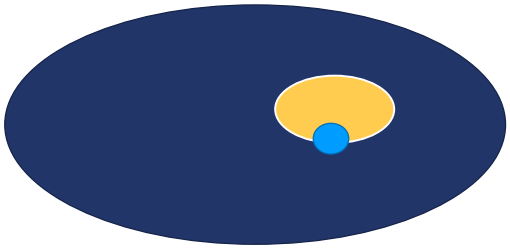
#1:

All hospice is palliative care.
Not all palliative care is hospice.



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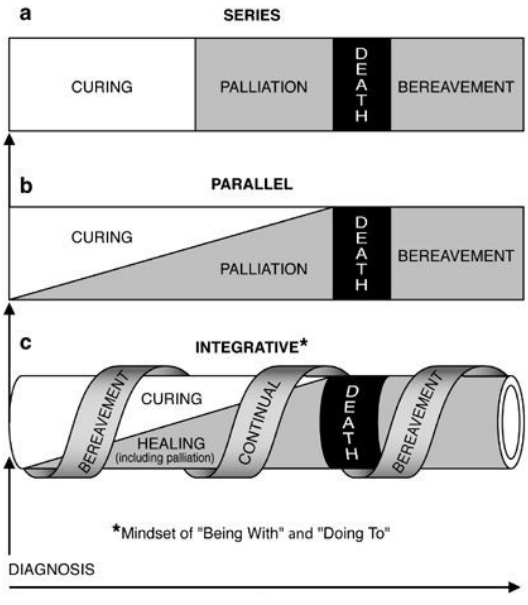
Palliative Care…

… focuses on expert assessment and management of pain and other symptoms, assessment and support of caregiver needs, and coordination of care.

… inclusive of all people with serious illness, regardless of setting, diagnosis, prognosis, or age.



NCP Guidelines 4ed (2018)

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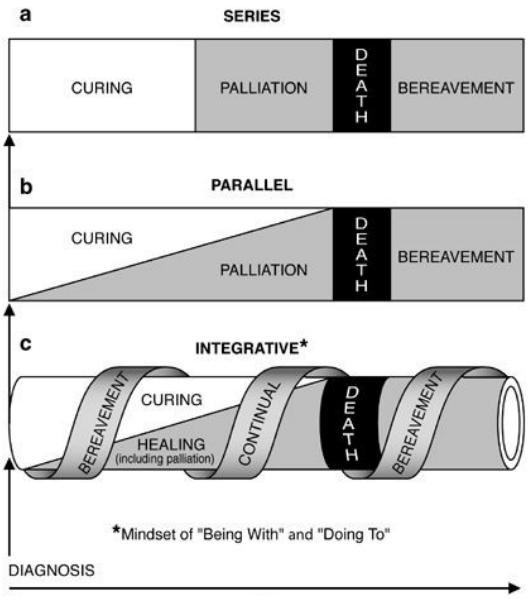
Palliative Care…

… attends to the physical, functional, psychological, practical, and spiritual consequences of a serious illness.



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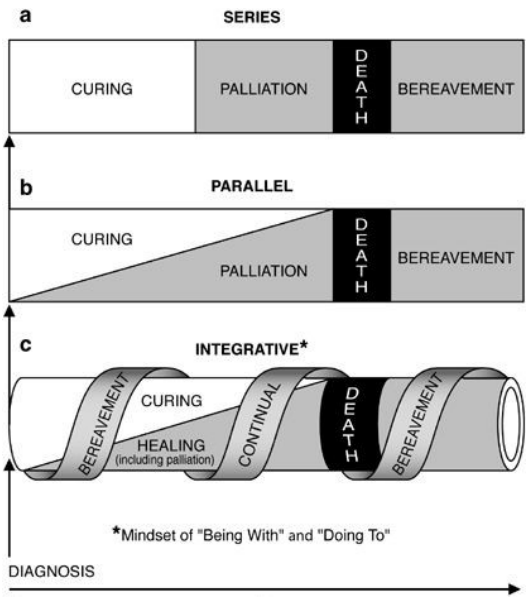
Palliative Care…

… is a person- & family-centered approach to care, providing people living with serious illness relief from the symptoms and stress of an illness.

Through early integration into the care plan for the seriously ill, palliative care improves quality of life for the patient and the family.



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Appropriate at any stage	in a serious illness; beneficial when provided along with treatments of curative or life-prolonging intent.
Provided over time	to patients based on their needs and not their prognosis .
Offered in all care settings	e.g., physician practices, health systems, cancer centers, dialysis units, home health agencies, hospices, and long-term care providers
Focused on what is most important	to the patient, family, and caregiver(s), assessing their goals and preferences & determining how best to achieve them .
Interdisciplinary	attending to the holistic care needs of the patient and their identified family and caregivers

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So…. Not hospice?

Hospice (*n.*)

Program of care under Medicare, Medicaid , commercial insurance, into which patients may opt to enroll when goals are to enhance QOL

Eligibility

- adult patients must have a defined, time-limited prognosis (certified by two physicians as six months or less if the disease follows its usual course) and desire care focused on comfort, foregoing insurance coverage for further terminal disease-directed curative treatment efforts.
- The Patient Protection and Affordable Care Act of 2010 contained provisions allowing pediatric patients to receive disease-modifying treatment while also receiving hospice services (“concurrent care”)

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Hospice includes…

- **Interdisciplinary team** for expert medical care, emotional, and spiritual support, focusing on improving patient and family quality of life
- **Medications** required for QOL
- **DME** required for QOL

NOT…

- The place (home, nursing homes, residential facilities, skilled nursing)
- The food
- The 24/7 caregivers

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Palliative Medicine	Hospice
BOTH Maximize QOL – Clarify Goals – ACP – Tx Symptoms	
Any point in illness, Dx→Death	Last 6 Months
Concurrent disease-directed and LST	Forego LST, avoid hospital*

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"We're the extra layer of support…"

… for those with serious illness, and their loved ones

1. **Symptom Management** – Body, Mind & Spirit
2. **Communication** about what's most important (is everyone on the same page about the big picture?)
3. **Coordination** of care efforts, thinking about **next steps**

"Helping you live as well as you can, as long as you can"

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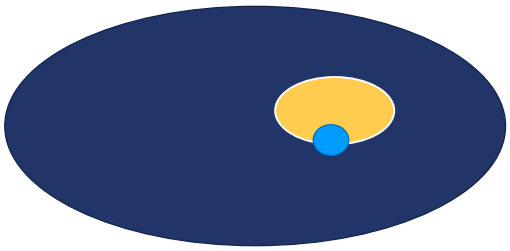
Why is the setting important?



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#2:

Strategies for pain control depend on goals, which depend on a shared understanding of prognosis.

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Goals evolve when patients hear, understand, and make sense of serious news. . . and start to fit this news into their life context. **Everyone in medicine has a role in this process.**

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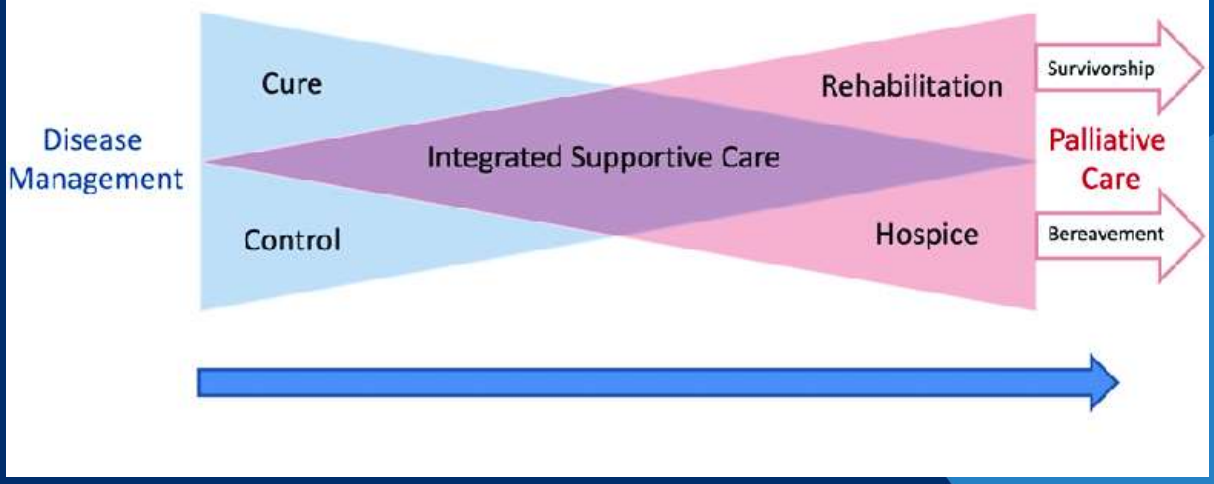

Paul, Braedon & Golin, Andrew. (2019). Practicing Proactive Medicine: Making Primary Prevention Our Primary Goal. 11. 41-42.

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#3:

Pain assessment is more than a number.

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The average cancer patient has 8-12 symptoms.

- Discordant assessments of severity
  - clinician – patient – family
  - In a study of 103 cancer patients, a comparison of Visual Analogue Scale (VAS) pain ratings by health professionals with those of patients showed lower ratings of severe pain by health care professionals more than 70 percent of the time (Grossman et al, JPSM, 1991)
  - Family members tend to overrate symptoms (Silveira et al Chronic Ill 2010)
- Under reported / elicited symptoms
  - Of patients referred to a palliative medicine program: **10 symptoms present for every 1 symptom volunteered**
- Patient factors complicate management options

Hui D, Bruera E. JPSM, March 2017.; Homsi et al, Support Care Cancer 2006

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General Principles: Pain Assessment

1. Assess mental status and stamina. Triage questions.
2. Allow patient to triage and set agenda
   - "What bothers you the most?"
   - "If there is one thing we can work on…"
3. Due to multiple symptoms, consider use of a systematic assessment

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ESAS

10 items, unidimensional

Date:_____ Time: _____

Please circle the number that best describes your average symptom over the past 24 hours:

No Pain	0 1 2 3 4 5 6 7 8 9 10	Worst Pain
No Fatigue	0 1 2 3 4 5 6 7 8 9 10	Worst Fatigue
No Nausea	0 1 2 3 4 5 6 7 8 9 10	Worst Nausea
No Depressed	0 1 2 3 4 5 6 7 8 9 10	Worst Depression
Not Anxiety	0 1 2 3 4 5 6 7 8 9 10	Worst Anxiety
No Drowsiness	0 1 2 3 4 5 6 7 8 9 10	Worst Drowsiness
No Shortness of Breath	0 1 2 3 4 5 6 7 8 9 10	Worst Shortness of Breath
Best Appetite	0 1 2 3 4 5 6 7 8 9 10	Worst Possible
Best Feeling or Well Being	0 1 2 3 4 5 6 7 8 9 10	Worst Feeling of Well Being
Best Sleep	0 1 2 3 4 5 6 7 8 9 10	Worst Sleep

Completed by: ☐ Patient ☐ Family

Assessed by (Signature/Credentials/ID#/ Date/ Time)_____

Print / Stamp Name: _____

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Table 3

Strengths and Limitations of the ESAS

Strengths	Limitations
• Pragmatic patient-centered symptom assessment tool that is easy to administer, interpret, and report • The assessment of 10 symptoms at the same time allows for symptom clusters to be identified • Can be completed rapidly (<1 minute) • Currently used by many clinical and research groups worldwide, allowing for benchmarking • Face validity • Psychometrically validated by multiple groups • Available into >20 languages • The responsiveness and minimal clinically important differences have been identified • Available in many different languages • Free of charge	• Unidimensional scales that assess only symptom intensity • Different versions of ESAS are currently used with different time anchors and number of items, making it sometimes difficult to compare or combine results • Few validation studies in noncancer populations • Some items (e.g., well-being) are not well defined

ESAS = Edmonton Symptom Assessment System.

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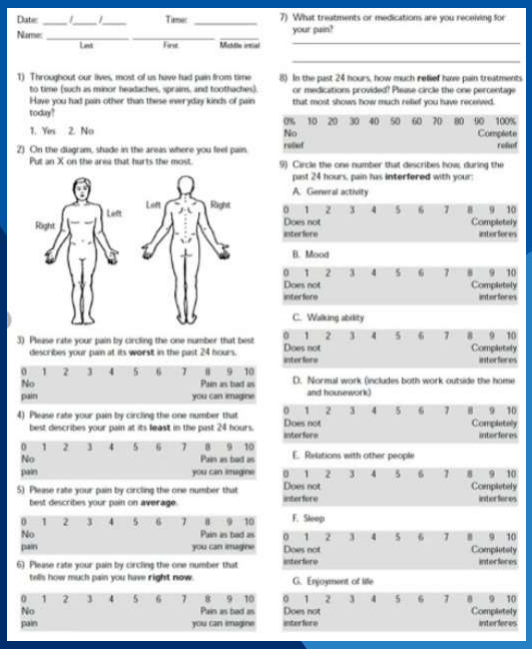
Brief Pain Inventory

Pain only
Worst, Least, Average, Now
Treatments and % relief
Captures functional impact



Date: ____/____/____ Time: _____

Name: _____ _____ _____
Last First Middle initial

1) Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?
1. Yes 2. No

2) On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.

Right Left Left Right

3) Please rate your pain by circling the one number that best describes your pain at its **worst** in the past 24 hours.
0 1 2 3 4 5 6 7 8 9 10
No pain — Pain as bad as you can imagine

4) Please rate your pain by circling the one number that best describes your pain at its **least** in the past 24 hours.
0 1 2 3 4 5 6 7 8 9 10
No pain — Pain as bad as you can imagine

5) Please rate your pain by circling the one number that best describes your pain on **average**.
0 1 2 3 4 5 6 7 8 9 10
No pain — Pain as bad as you can imagine

6) Please rate your pain by circling the one number that tells how much pain you have **right now**.
0 1 2 3 4 5 6 7 8 9 10
No pain — Pain as bad as you can imagine

7) What treatments or medications are you receiving for your pain?

8) In the past 24 hours, how much **relief** have pain treatments or medications provided? Please circle the one percentage that most shows how much relief you have received.
0% 10 20 30 40 50 60 70 80 90 100%
No relief — Complete relief

9) Circle the one number that describes how, during the past 24 hours, pain has **interfered** with your:

A. General activity
0 1 2 3 4 5 6 7 8 9 10
Does not interfere — Completely interferes

B. Mood
0 1 2 3 4 5 6 7 8 9 10
Does not interfere — Completely interferes

C. Walking ability
0 1 2 3 4 5 6 7 8 9 10
Does not interfere — Completely interferes

D. Normal work (includes both work outside the home and housework)
0 1 2 3 4 5 6 7 8 9 10
Does not interfere — Completely interferes

E. Relations with other people
0 1 2 3 4 5 6 7 8 9 10
Does not interfere — Completely interferes

F. Sleep
0 1 2 3 4 5 6 7 8 9 10
Does not interfere — Completely interferes

G. Enjoyment of life
0 1 2 3 4 5 6 7 8 9 10
Does not interfere — Completely interferes

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PainAD

Observational Scale

Breathing, independent of vocalization	Normal	Occasional labored breathing. Short period of hyperventilation.	Noisy labored breathing. Long period of hyperventilation. Cheyne-stokes respirations.
Negative vocalization	None	Occasional moan or groan. Low level speech with a negative or disapproving quality.	Repeated troubled calling out. Loud moaning or groaning. Crying.
Facial expression	Smiling, or inexpressive	Sad. Frightened. Frown.	Facial grimacing.
Body language	Relaxed	Tense. Distressed pacing. Fidgeting.	Rigid. Fists clenched, Knees pulled up. Pulling or pushing away. Striking out.
Consolability	No need to console	Distracted or reassured by voice or touch.	Unable to console, distract, or reassure.
			TOTAL:

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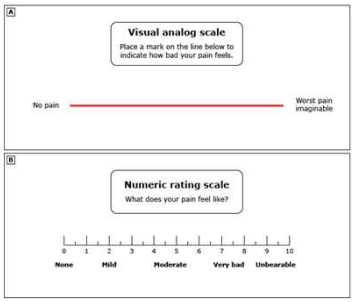
Severity Metrics

- Numerical 11 point scale
  - Develop a shared understanding of what a 0, 10 , goal score and current score **mean**
- Visual Analog Scale
- Likert
  - (bothered not at all, a little bit, somewhat, quite a bit, very much)
  - Faces scale
- Global vs recent / last 24 hours
- **Symptom change**



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Pain assessment

- **Meaning** (Impact on function, daily life, existence)
- Onset
- Palliating / Provoking (Past and Present)
- Quality
- Related factors, Region, Radiation
- Severity
- Temporality
- **Functional goal for successful management**

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"Of the symptoms that have been bothering you, which symptom bothers you the most?"

This will identify a primary symptom in one-third of patients who would otherwise be missed (Hoekstra et al, Patient Educ Couns 2007)

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"How do the symptoms affect you? How much do they interfere with your life? (eg, sleep? daily activities? your sense of wellbeing?)"

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“What does this pain mean for you?”

“What ideas do you have about the meaning of these symptoms?”

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“How are these symptoms affecting your family and friends?”

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“Do they make you worry about your health/illness? What are your concerns?”

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“What would successful pain management look like?”

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#4:

All pain is real.
Not all pain responds to opioids.
Use the tool that fits the suffering.

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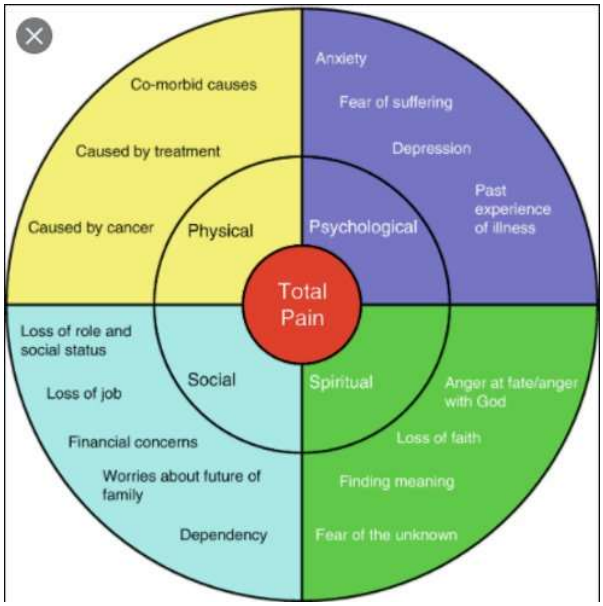
Total Pain

"The suffering of our body affects our mind."

"Suffering in our mind also affects our body."



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Palliative Specialists: an Interdisciplinary Team

Physician/APP	RN	SW	Chaplain
• Illness trajectory • Prognosis • Medical treatments	• Patient advocate • Direct Pt Care • Educator • Patient's need (re)assessments • Coordination	• Family dynamics • Support coping mechanisms • SDH • Facilitate access to resources • Mediate conflict	• Continuity with faith community • Strengths, Struggles, Hope, Fear, Meaning, Purpose • Life completion tasks

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Approach to Pain Management

- Goal Setting
- Adjuvants
- Procedural Interventions
- Nonpharmacologic techniques
- PDMP Query and risk stratification for opioid misuse
- If indicated, use of opioids

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Side effects of opioids

- Respiratory Depression
- **Constipation**
- Nausea
- Myoclonus
- Delirium
- Urinary Retention

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Approach to opioids for acute pain crisis.

- Calculate total daily dose (TDD) of opioids in oral morphine equivalents (OME or MME).
- 1. Provide short acting opioid bolus 10% TDD.
- 2. Repeat after 15 minutes if needed.
- 3. Increase dose by 25%-50% if needed.
- Repeat until goal-concordant analgesia is obtained. Calculate hourly dose required.

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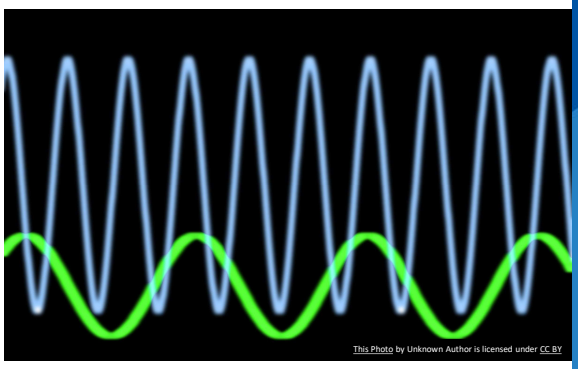
- In normal hepatic and renal function, most oral short acting agents only last 3-4 hours.
- IV, 1-2 hours
- Amplitude of effect depends on dose. IV is not necessarily stronger!



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#5:

Use the equianalgesic table to convert between opioids of equivalent doses and to trend opioid use over time.

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The Equianalgesic Table

	Oral	IV, SQ
Morphine, Hydrocodone	30 mg	10 mg
Oxycodone	20 mg	-
Hydromorphone	7.5 mg	1.5 mg
Fentanyl	-	100 mcg

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Converting to Oral Morphine Equivalents

- Oxycodone 10 mg x 4

$$40\ mg\ oxy\left(\frac{30\ mg\ MME}{20mg\ oxy}\right) = 60\ mg\ MME$$

- Hydromorphone IV 0.2 mg x

$$1.0\ mg\ IV\ HM\left(\frac{30\ mg\ MME}{1.5\ mg\ IV\ HM}\right) = 20\ mg\ MME$$

- Morphine 2 mg IV x 1

$$2\ mg\ IV\ M\left(\frac{30\ mg\ MME}{10mg\ IV\ M}\right) = 6\ mg\ MME$$

Hydromorphone	7.5 mg	1.5 mg
Fentanyl	-	100 mcg

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Case:

- 62y M colon cancer met to bone and liver
- MSCR 60 mg BID, MSIR 15 mg q2h PRN (4 dose / day)
- Pain 6/10 (baseline 3)
- partial bowel obstruction, nausea / vomiting

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1. Calculate the total daily dose (TDD)

- MSCR 60 mg BID
- MSIR 15 mg q2h PRN (4 dose / day)
- 60 + 60 + 4(15)

$$120mg\ MSCR + 60mg\ MSIR = 180mg\ OME$$

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2. Convert to chosen opioid

- IV morphine
- If rotating to a different opioid, reduce for cross tolerance 25-50%

$$180mg\ OME\ \left(\frac{10mg\ IV\ morphine}{30\ mg\ OME}\right) = 60\ mg\ IV\ morphine\ per\ day$$

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3. Set long acting or scheduled dose

$$60mg\ IV\ morphine * \frac{2}{3} = 40mg\ IV\ morphine\ per\ day\ by\ infusion$$

40mg / 24 hours = 1.7mg morphine IV her hour

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4. Set as needed dose and frequency

- Dose: 10% of TDD
- Frequency:
  - initially every 1-2 hours PO or every 30-60 min if IV

$$180\ mg\ OME = 60mg\ IV\ morphine$$

$$60\ mg\ IV\ morphine * 10\% = 6mg\ morphine\ IV\ q1h\ PRN$$

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Initial Orders:

- Morphine infusion: 1.5mg / hr, with plan to reassess in 3 hours and increase to 2 mg / hr if needed at that time.
- Morphine 6 mg IV hourly as needed for pain

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Review of approach to opioids, acute pain

1. Calculate the Total Daily Dose (TDD) in OME.
2. Convert to chosen opioid using the table.
    1. Reduce by 25-50% for cross tolerance
3. Determine the scheduled dose: 2/3 TDD
    1. Increase by 25-50% every 5 half lives if chronic component
4. Determine the PRN dose: 10% TDD at frequency required to “catch up”.

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The case continues…

- Over the first 24 hours he uses 3 doses of IV morphine and is increased to 2 mg / hr infusion.
- Day 2: one PRN dose, resolving bowel obstruction, 4/10
- Day 3: one PRN dose, mild AKI, 3/10

- You decide to rotate opioids

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5. Convert TDD to chosen opioid

- Day 2: 48mg IV morphine from infusion
  + 6 mg IV morphine from PRN
  = 54 mg IV morphine per day = 162 mg OME
- Day 3: same use; 162 mg OME
- Due to AKI, you decide to rotate to oxycodone.*

$$162mg\ OME\ \left(\frac{20mg\ oxy}{30mg\ OME}\right) = 108mg\ oxy\ per\ day$$

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6. Reduce for cross tolerance

$$108\ mg\ oxy * 0.7 = 76\ mg\ oxy$$

- Oxycodone ER: 2/3 of TDD = 50 mg oxy per day
- **Oxycodone ER 20 mg BID**

- Oxycodone IR : 10% TDD per dose = **7.5 mg q3h PRN**
- **Total: 20 + 20 + 8(7.5) = 100mg oxy available per day.**

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- 64 year old man with met. prostate cancer, pain 8/10
- Oxycodone-APAP 5/325mg every 4 hours, 6 doses/day

What is our goal for pain relief?

$$30mg\ oxy\left(\frac{30\ mg\ OME}{20mg\ oxy}\right) = 45mg\ OME$$

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	Oral	IV, SQ
Morphine, Hydrocodone	30 mg	10 mg
Oxycodone	20 mg	-
Hydromorphone	7.5 mg	1.5 mg
Fentanyl	-	100 mcg

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3. Determine the scheduled dose: 2/3 TDD
4. Determine the PRN dose: 10% TDD per dose

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	Oral	IV, SQ
Morphine, Hydrocodone	30 mg	10 mg
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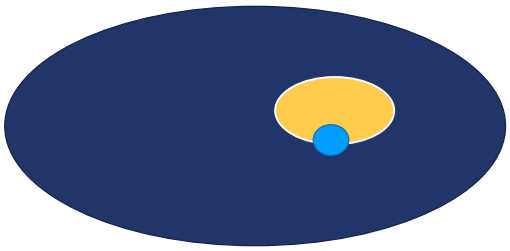

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#2:

Strategies for pain control depend on goals, which depend on a shared understanding of prognosis.

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#3:

Pain assessment is more than a number. (Find a functional goal set point!)

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Questions

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