1

Objectives

1. Discuss pharmacologic and nonpharmacologic management of pain, dyspnea, nausea, anxiety/agitation, bowel function, and sadness
2. Describe ways to assess symptom severity and set a timeline for monitoring based on pharmacokinetic properties of medications
3. Identify strategies for clear, straightforward communication with patients and caregivers regarding symptoms and their management
4. Understand the implications for the HOPE tool and the CAHPS survey

Home Care & Hospice

2

How Does CAHPS Relate to Symptoms

Getting timely help	Communication	Did the patient receive **pain** meds?	Did you get training about side effects of pain medication?
Did you get training about if and when to give more pain meds?	Did you get training about difficulty **breathing?**	Did the patient become **restless or agitated?**	Did you get training about what to do if the patient gets restless/agitated?
	Did the patient show any feelings of sadness?	Did the patient have trouble with **constipation**?	

Home Care & Hospice

3

How Does HOPE Relate to Symptoms?

Admission assessment to be completed within the first 5 days after a patient is admitted to hospice care

J2051. Symptom Impact

Over the past 2 days, how has the patient been affected by each of the following symptoms? Base this on your clinical assessment (including input from patient and/or caregiver). Symptoms may impact multiple patient activities including, but not limited to, sleep, concentration, day to day activities, or ability to interact with others.

Coding:
0. Not at all – symptom does not affect the patient, including symptoms well-controlled with current treatment
1. Slight
2. Moderate
3. Severe
9. Not applicable (the patient is not experiencing the symptom)

	Enter Code
A. Pain	☐
B. Shortness of breath	☐
C. Anxiety	☐
D. Nausea	☐
E. Vomiting	☐
F. Diarrhea	☐
G. Constipation	☐
H. Agitation	☐

Note the wording: ***How has the patient been affected?***

4

Determine HOPE Code

Clinicians evaluate "impact" by looking at how symptoms interfere with

- **Sleep** and rest quality
- **Concentration** and cognitive focus
- **Day-to-day activities** (e.g., eating, moving)
- **Social interaction** with others

5

HOPE Symptom Follow-up Visit

- Symptom Follow-Up Visit **within two calendar days** to f/u any pain or non-pain symptom impact rated as moderate or severe
- Separate visit from the admission or HUV visits
- Can also occur later the same day
- Based on SYMPTOM IMPACT (sleep, day to day activities) not on symptom severity rating

6

Meet Mr. J

Mr. J is a 72-year-old male with metastatic non–small cell lung cancer admitted to hospice after disease-directed treatment was discontinued. His stated goals of care are comfort-focused, with a strong preference to remain at home with family.

At admission, the hospice nurse completes the **HOPE assessment** to establish baseline symptom burden, functional status, and care needs.

HOPE Admission Highlights:
Pain: Mild, intermittent (2/10)
Dyspnea: Present with exertion
Nausea/Vomiting: None
Bowel Function: Regular
Anxiety: Mild, situational
Cognition: Alert and oriented
Functional Status: Reduced endurance

Based on HOPE findings, Mr. J is scheduled for **routine skilled nursing visits twice weekly**, with PRN visits as needed.

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Knowledge Check

- **Which HOPE findings most directly influence initial visit frequency?**
  A. Diagnosis alone
  B. Symptom burden and functional status
  C. Caregiver availability
  D. Patient age

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Mr. J: Dyspnea

One week later, during a routine HOPE reassessment, Mr. J reports worsening shortness of breath, now occurring at rest. He appears anxious and states, "I feel like I can't catch my breath."

HOPE Assessment:	Dyspnea severity increased
	Speech affected
	Anxiety present
Clinical Interventions:	Oxygen initiated for comfort
	Low-dose morphine started
	Education on opioid use for dyspnea
	Environmental calming

How would you code this HOPE assessment?

9

Symptom Impact

J2051. Symptom Impact

Over the past 2 days, how has the patient been affected by each of the following symptoms? Base this on your clinical assessment (including input from patient and/or caregiver). Symptoms may impact multiple patient activities including, but not limited to, sleep, concentration, day to day activities, or ability to interact with others.

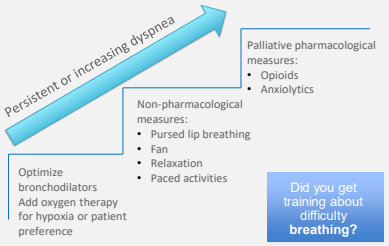
Coding:

0. Not at all – symptom does not affect the patient, including symptoms well-controlled with current treatment
1. Slight
2. Moderate
3. Severe
9. Not applicable (the patient is not experiencing the symptom)

	Enter Code ↓
A. Pain	
B. Shortness of breath	2
C. Anxiety	
D. Nausea	
E. Vomiting	
F. Diarrhea	
G. Constipation	
H. Agitation	

10

Dyspnea Treatment Ladder



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Opioids for Dyspnea

- Opioids - drug of first choice in the palliation of dyspnea in advanced disease
- Start with low doses for intermittent dyspnea in opioid naïve patients; for example:
  - Morphine IR 2.5 to 5 mg PO every 3-4 hours as needed
  - Oxycodone 5 mg PO; titrate every 4 hours as needed
  - Hydromorphone 0.5 to 1 mg PO q 4 hours as needed
  - Morphine LA 15 mg PO every 12 hours
- Can then switch to a slower-release form of opioid for persistent dyspnea
- For patients currently taking opioids, increase current opioid dose by 25-50%
- Nebulized opioids are not generally recommended; controlled trials do not support their use over oral opioids.

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Anxiolytics for Dyspnea

- Benzodiazepines fail to show a significant effect for the relief of dyspnea, but may help when an anxiety component exists
  - Use 2nd line or in combination with opioids
- Start at a low dose and titrate
  - Ex. Lorazepam 0.5 to 1 mg PO every 2-4 hours PRN
- Scheduled or PRN

Simon ST, Higginson IJ, Booth S, Harding R, Weingärtner V, Bausewein C. Benzodiazepines for the relief of breathlessness in advanced malignant and non-malignant diseases in adults. Cochrane Database Syst Rev. 2016 Oct 20;10(10):CD007354.

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Opioids for Dyspnea Crisis

- Every 10 minute IV or SC with escalating doses
  - Example: Morphine IV push:
    - 5-10 mg

If opioid tolerant, start with 25% of total daily dose

If no better in 10 minutes

10-15 mg

If no better in 10 minutes

15-20 mg

Hui D, Bruera E. Use of short-acting opioids in the management of breathlessness: an evidence-based review. Curr Opin Support Palliat Care. 2020 Sep;14(3):167-176.

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Hope SFV Discussion

What's a reasonable time-frame to reassess dyspnea?

SubQ: 15-20 minutes
Oral: 30-45 min with peak in about 60 minutes
Duration about 4 hours

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Knowledge Check

- **Why is morphine effective for dyspnea in hospice patients?**
  A. It improves oxygen saturation
  B. It treats lung cancer progression
  C. It reduces the perception of air hunger
  D. It sedates the patient completely

- Reduces air hunger
- Decreased respiratory drive
- Decrease anxiety
- Modulate receptors in airways
- Peripheral vasodilation in patients with pulmonary edema

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Mr. J: Pain

During a routine HOPE reassessment, Mr. J reports increasing chest and rib discomfort, rating pain at 6/10. He states, "the medication helps, but the pain comes back before the next dose."

HOPE Assessment:	Severity increased from mild to moderate
	Pain recurring before next scheduled dose
	Functional impact: decreased mobility and rest
Clinical Interventions:	PRN opioid use reviewed
	Scheduled opioid dose adjusted
	Dosing frequency increased based on breakthrough pattern
	Education provided on reporting breakthrough pain
	Bowel regimen reinforced

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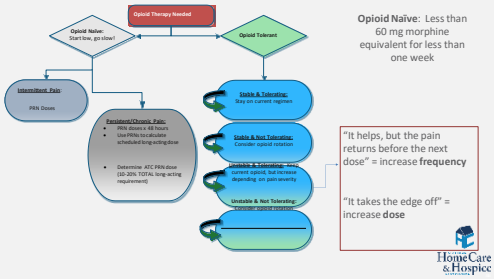
Approach to Opioid Dosing



Opioid Naïve: Less than 60 mg morphine equivalent for less than one week

"It helps, but the pain returns before the next dose" = increase **frequency**

"It takes the edge off" = increase **dose**

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How QUICKLY Will This Opioid Begin Working and How LONG Will It Last

Medication	Onset of Action	Duration of Effect (hours)
Morphine IR	30 min-1 h	3-7
Morphine ER	2-4 h	8-12
Morphine Sol	30 min – 1 h	3-7
Fentanyl	12-24 h	72
Oxycodone	30 min-1 h	3-4
Hydromorphone	30 min – 1 h	3-4

Medication	Onset of Action	Duration of Effect (hours)
Tramadol	30 min -1 h	6
Hydrocodone-APAP	30 min – 1 h	3-4
Oxycodone-APAP	30 min – 1 h	3-4
Tylenol-Codeine #3	30 min – 1 h	4-6
Methadone	30 min – 1 h	4-6 initially, then longer

Did you get training about if and when to give **more pain meds**?

- Most oral dosage forms have an onset of 30-60 minutes
- Peak effects usually around 1-2 hours
- Some patients will have a duration of action of only 3-4 hours for immediate release forms
- Long acting forms have longer onset of action; be sure PRN opioid is available

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Opioid Adverse Effects

Did you get training about if and when to give more pain meds?

Portenoy RK, et al. UpToDate. Feb 26, 2019.
Bruera E, ed, et al. Textbook of Palliative Medicine and Supportive Care, 2nd ed. Boca Raton, FL: Taylor & Francis Group, LLC; 2015.

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Opioid Adverse Effects: Gastrointestinal

- Early satiety
- Abdominal bloating and cramping
- Constipation
- Nausea and vomiting

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Opioid-Induced Cognitive Changes

Sedation		
Transient	⟶	Persistent
Cognitive Impairment		
Slight inattention or fatigue	⟶	Disorientation, severe memory impairment, confusion, delirium
Perceptual Disorders		
Dreaming, illusions	⟶	Hallucinations
Mood Disturbances		
Negative: Irritability, depressed mood, dysphoria	>	Positive: Contentment, euphoria

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Opioid-Induced Respiratory Depression

- Slow, shallow breathing rate of less than 12 breaths per minute
- Rarely an issue with proper opioid titration
- Tolerance develops within days after opioid initiation
- **Risk factors**
  - Opioid-naïve patients administered high opioid doses
  - Morbid obesity
  - Sleep apnea
  - Advanced age
  - Renal failure

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Opioid-Induced Pruritus

- Mild or transient episodes in up to 10% of patients on chronic systemic opioids; higher with intravenous vs. oral opioids
- Persistent or troublesome pruritus occurs only in approximately 1% of patients
- Generalized and not associated with a rash (although hives can occur)
- Pruritus may be more common with naturally occurring opioids, such as codeine and morphine, although data is conflicting
- Mechanism is uncertain
  - Histamine plays a role for morphine; less so for other opioids
- Distinguish between adverse effect and true allergic reaction
  - True allergic reaction = rash, angioedema, bronchospasm
  - If true allergy, consider an opioid from another structural class

Cherny, Nathan, et al. "Strategies to manage the adverse effects of oral morphine: an evidence-based report." *Journal of Clinical Oncology* 19.9 (2001): 2542-2554.

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Knowledge Check

- Which clinical interpretation best guides opioid adjustment when a patient says, "The pain returns before the next dose"?
- A. Reduce the dose
  B. Increase dosing frequency
  C. Discontinue opioid therapy
  D. Add only non-pharmacologic treatments

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Mr. J: Nausea

At the next routine visit, HOPE reassessment identifies new-onset nausea affecting Mr. J's appetite. He reports, "I feel queasy all day and don't want to eat."

HOPE Assessment:	New moderate nausea
	Decreased oral intake
Clinical Interventions:	Metoclopramide added after assessment suggests delayed gastric emptying
	Medication review performed
	Caregiver educated on monitoring effectiveness

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Medications That Can Cause Nausea

- All meds?
- Antibiotics
- Antidepressants
- NSAIDs
- Opioids
- Dementia meds
- Anticonvulsants
- Vitamins/ supplements
- Medications for Parkinson's disease
- Digoxin and amiodarone
- Antiretrovirals

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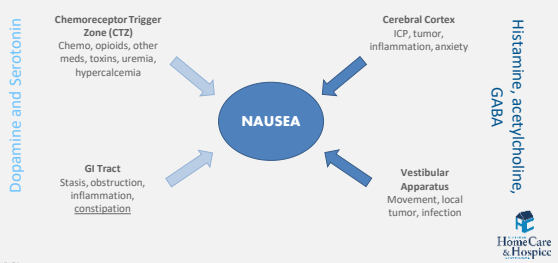
Management of Nausea



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Treatments Based on Nausea Description

Complaint	Potential Cause	Treatment
Intermittent, early satiety, postprandial fullness/bloating; relieved by vomiting that is usually small volume, may contain food	Impaired gastric emptying (35-45% of cases)	Metoclopramide before meals and at bedtime; can cause drowsiness
Persistent, aggravated by sight/smell of food, unrelieved by vomiting	Chemical causes (chemoreceptor trigger zone) 30-40% of cases	Dopamine/serotonin agents: haloperidol, ondansetron, olanzapine
Intermittent, also abdominal cramps, altered bowel habits; relieved by vomiting which may be large volume	Bowel obstruction (10-30% of cases)	Treatment of bowel obstruction
Early morning, associated with headache	Raised intracranial pressure (less than 15% of cases)	Corticosteroids
Aggravated by movement	Vestibular (less than 15% of cases)	Promethazine
Associated with anxiety	Cortical (less than 15% of cases)	Benzodiazepines (lorazepam)

Glare P, et al. Treating nausea and vomiting in palliative care: a review. Clin Interv Aging . 2011;6:243-59.

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Differences Between Antiemetics

	Dopamine	Serotonin	Acetylcholine	Histamine
Haloperidol (Haldol®)	++++	--	--	+
prochlorperazine (Compazine®)	++	--	--	+
Chlorpromazine (Thorazine®)	++++	+	++	++++
Diphenhydramine (Benadryl®)	+	--	++	++++
promethazine (Phenergan®)	++	--	++	++++
scopolamine	+	--	++++	+
Metoclopramide (Reglan®)	+++	++	--	+
Ondansetron	---	++++	--	--
olanzapine (Zyprexa®)	++++	++++	++	++

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Olanzapine for Nausea

- Systematic review: each of the 13 articles concluded that olanzapine is effective for the treatment of nausea and vomiting in patients with palliative disease
- Can be administered as a single daily dose (start with 2.5 or 5 mg) or every 12 h
- Available in dispersible tablet form
- Can cause drowsiness; administer in evening
- Can increase dose in increments of 2.5mg up to max dose of 10mg per day

Soulemont, G, et al. The use of olanzapine as an antiemetic in palliative medicine: a systematic review of the literature. *BMC Palliat Care* **19**, 55 (2020).

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Empiric vs. Etiology-Related Nausea Treatment in Cancer

- The value of empiric vs. etiology-based antiemetic therapy was addressed in a systematic review of 93 studies of treatment of nausea and vomiting in advanced cancer unrelated to chemotherapy or radiation therapy
- The authors concluded that there was no evidence that antiemetic choice based on the presumed etiology of the nausea and vomiting was any better than a single empirically chosen antiemetic
- Antiemetic choices based on etiology of nausea do not improve nausea any better than the empiric use of **haloperidol**
- Topical haloperidol and topical diphenhydramine, lorazepam, and metoclopramide are ineffective antiemetics and should not be used to treat nausea in advanced cancer

Davis MP, Hallerberg G; Palliative Medicine Study Group of the Multinational Association of Supportive Care in Cancer. A systematic review of the treatment of nausea and/or vomiting in cancer unrelated to chemotherapy or radiation. *J Pain Symptom Manage*. 2010;39(4):756-767.

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Opioid-Induced Nausea/Vomiting

- Incidence: 40% nausea and 15–25% vomiting
- Treatment includes:
  - Opioid switch/rotation
  - Antiemetics (ondansetron, haloperidol)
  - Change route of administration (?)
- Tolerance usually develops in 3-7 days, allowing for deprescribing of antiemetic
- Don't forget that ondansetron can worsen opioid-induced constipation
- 2023 study used a nomogram approach to predict opioid-induced nausea and vomiting. They found history of motion sickness, mean sleep duration < 5 h at night, non-first-time use of opioids, and drug dose adjustment increased the risk

Mallick-Searle T, Fillman M. The pathophysiology, incidence, impact, and treatment of opioid-induced nausea and vomiting. J Am Assoc Nurse Pract 2017;29:704–710
Kong, Lingping, Wang, Jing. Nomogram for predicting opioid-induced nausea and vomiting for cancer pain patients. Supportive Care in Cancer. Nov 2023; 31:663

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Hope SFV Discussion

- What's reasonable timing for f/u after a new medication is started for nausea?

- Most oral antiemetics start working within 30 to 60 minutes, with peak effects often occurring around 1–2 hours.
- Scopolamine patch can take several hours to begin working
- Don't forget metoclopramide needs to be 30 minutes before meals and at bedtime

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Mr. J: Anxiety

During a routine visit following worsening dyspnea episodes, Mr. J appears restless and reports "I feel nervous all the time now… like something bad is going to happen." Family notes increased worry, poor sleep, and frequent requests for reassurance.

HOPE Assessment	Anxiety: New onset, persistent throughout day
	Associated with breathlessness episodes
	Affect: visibly tense, difficulty relaxing
	Cognition: intact
	Functional impact: reduced rest, increased distress

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Anxiety: Assessment

Ask Patient About	Assess
• Anxiousness • Fear • Nervousness • Tension • Apprehension • Presence of other anxiety-related symptoms	• Sleep deprivation • Respiratory distress • Causative medications • Substance withdrawal • Fecal impaction • Urinary retention • Current pain level

Screening tools:

- Brief Patient Health Questionnaire for Depression and Anxiety (PHQ-4)
- Positive PHQ-4 should be followed by the Generalized Anxiety Disorder Scale (GAD-7)
- Both screening tools can be used to monitor symptoms over time

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Anxiety: Symptoms & Diagnosis

Anxiety and worry are associated with the following symptoms:

Emotional Symptoms	Cognitive Symptoms	Physical Symptoms
Depression Decreased capacity to cope Dizziness Dread Frequent mood variation Irritability Restlessness Rumination Tension Withdrawal from social supports	Apprehension Indecisiveness Intrusive thoughts Poor concentration Poor problem-solving skills Poor recall ability	Appetite changes Diarrhea Dry mouth Dysphagia Fatigue Gastrointestinal upset Hyperventilation Insomnia Lightheadedness Muscle tension Nausea Palpitations Self-medication Shortness of breath Substance use Sweating Urinary frequency

Did the patient become restless or agitated?

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Causes of Anxiety

Comorbidities	Medications
• Uncontrolled pain • Pre-existing depression, anxiety or panic disorder • Pre-existing phobia or obsessive-compulsive disorder • Post Traumatic Stress Disorder • Dyspnea, hypoxia • Sepsis • Thyroid abnormalities • Heart failure	• Theophylline • Caffeine • Decongestants • Thyroid hormones • Digoxin • Bronchodilators • Corticosteroids • Antidepressants • Antipsychotics • Withdrawal from opioids, benzodiazepines, barbiturates, alcohol and other substances

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Managing Anxiety

Did you get training about what to do if the patient gets restless/agitated?

Clinical Interventions	Non-Pharmacologic Interventions	Pharmacologic Considerations

• Evaluate for reversible causes:
  • Dyspnea-related panic
  • Pain escalation
  • Medication effects
  • Hypoxia
• Screen for delirium or cognitive decline
• Assess emotional and existential concerns
	• Therapeutic presence and reassurance
	• Breathing coaching
	• Education linking anxiety and dyspnea
	• Environmental calming strategies
		• Low-dose lorazepam PRN initiated for acute anxiety episodes
		• Education provided to caregiver regarding appropriate use

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Managing Anxiety

Benzodiazepines

Medication	Initial Dosing	Duration
Lorazepam (Ativan®)	0.5mg PO/SL/IM/IV Q4-6H PRN	10-20 hours
Alprazolam (Xanax®)	0.25mg PO/SL TID	12-15 hours
Oxazepam (Serax®)	10mg PO TID	5-20 hours
Chlordiazepoxide (Librium®)	5mg PO TID	24-48 hours
Clonazepam (Klonopin®)	0.25mg PO Q12H	30-40 hours
Clorazepate (Tranxene®)	15mg PO daily	40-50 hours
Diazepam (Valium®)	2mg PO BID-QID	44-48 hours

Clinical Considerations

- Rapid (30-60 min for oral) relief of symptoms
- Should be used for short courses and at low doses
  - Short-acting benzodiazepines with a rapid onset are appropriate for acute breakthrough symptoms
  - Long-acting benzodiazepines should be reserved for scheduled use
- Patients may exhibit paradoxical reactions that present with hyperactivity
- When discontinuing therapy, taper doses down slowly

https://clinicalkey.com/pharmacology/

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Managing Anxiety

Anxiolytics, non-BZDs

Medication	Initial Dosing
Buspirone (Buspar®)	7.5mg PO BID

- **Clinical Considerations**
- Prognosis ~ (at least) a few months
- Goal: Maintenance of symptoms
- Onset of effect is delayed by 2 weeks or more
- Can be used for short-term relief of anxiety symptoms but cannot be dosed as needed

https://clinicalkey.com/pharmacology/

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Hope SFV Discussion

- What is a reasonable time frame to reassess anxiety?

- PRN benzodiazepines (lorazepam, alprazolam) act in 30-60 minutes for short-term relief
- Scheduled buspirone 2 weeks or more
- SSRIs can take 3-6 weeks

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Mr. J: Constipation

One week later, HOPE bowel assessment reveals Mr. J has not had a bowel movement in five days. He reports abdominal discomfort and bloating.

HOPE Findings:	Constipation likely related to opioid use
	Moderate discomfort
Clinical Interventions:	Scheduled senna initiated
	Polyethylene glycol added
	Education provided on opioid-induced constipation
	Fluids encouraged as tolerated

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Constipation Assessment Scale

Directions: Circle the appropriate number to indicate whether, during the past three days, you have had No problem, Some problem or a Severe problem with each of the items listed below.

Item	No Problem	Some Problem	Severe Problem
1. Abdominal distension or bloating	0	1	2
2.Change in amount of gas passed rectally	0	1	2
3. Less frequent bowel movements	0	1	2
4. Oozing Liquid stool	0	1	2
5. Rectal fullness or pressure	0	1	2
6. Rectal pain with bowel movement	0	1	2
7. Smaller stool size	0	1	2
8. Urge but inability to pass stool	0	1	2
Patient's Name:		Date:	

CAS. (From McMillan SC, Williams FA. Validity and reliability of the constipation assessment scale. Cancer Nurs 1989;12:183-8.)

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Medications Associated with Constipation

- 5HT3 Receptor Antagonist
- Anticonvulsant
- Antidepressants
- Antihistamine
- Antihypertensives
- Anti-Parkinson's
- Antipsychotic
- Antispasmodic
- Bile Acid Sequestrants
- Cation-Containing Agent (aluminum, calcium, iron)
- Chemotherapy Agents
- Endocrine Medications
- NSAIDs
- **Opiates**

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Opioid-Induced Constipation

- Constipation is a side effect of opioids and patients do not develop tolerance to this side effect
- Occurs in 40-80% of patients using opioids
- Prevention is the key: consider prophylactic bowel regimen at opioid initiation
- Management approach
  - Traditional laxatives as first line agents – stimulant or osmotic laxative
  - Escalate to prescription medications (secretagogues, PAMORAs)

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Medication Management of Constipation

Medication Class	Medication	Onset	Clinical Considerations
★ Osmotic Laxatives	Polyethylene glycol 3350 powder (MiraLax®)	24-72h	• Fluid volume may be a concern in hospice patients • Efficacy: PEG > Lactulose = Sorbitol • PEG: bottle is less expensive than packets • Saline laxatives (magnesium based): contraindicated in renal failure due to risk of hypermagnesemia • ADEs: abdominal cramps, bloating, flatulence, diarrhea, nausea
	Lactulose (Enulose®)	24-48h	
	Sorbitol 70% solution	24-48h	
	Magnesium hydroxide (Phillips® Milk of Magnesia)	0.5-6h	
	Magnesium citrate (Citroma®)	0.5-6h	
★ Stimulant Laxatives	Bisacodyl (Dulcolax®) Senna (Senokot®)	6-12h	• Recommended for opioid-induced constipation • Despite widespread concern, little evidence that routine use of stimulant laxatives is harmful to the colon • ADEs: abdominal cramping/pain, diarrhea, electrolyte imbalance
Stimulant + Stool Softener	Senna-Docusate sodium (Senokot-S®)	6-12h	

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Other Laxatives

Medication Class	Medication	Onset	Clinical Considerations
Stool Softeners	Docusate (Colace®)	12-72h	• Limited evidence for prevention or treatment of constipation in hospice patients • ADEs: mild GI cramp
Bulk-Forming Agents	Psyllium (Metamucil®)	12-72h	• Psyllium has the strongest supporting data • **Give with 8oz fluid** • ADEs: flatulence, bloating, abdominal discomfort, impaction • Considerations in hospice patients • Ineffective for managing OIC • Caution in dysphagia, dehydration, obstructive symptoms, slow transit constipation, altered cognition
	Methylcellulose (Citrucel®)	12-72h	
	Calcium Polycarbophil (FiberCon®)	12-72h	
	Wheat Dextrin (Benefiber®)	12-72h	

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Suppositories and Enemas

- **Dosage form**: suppositories – solid, enemas – liquid
- **MOA:** induce evacuation by rectal stimulation or distention
- **Site of action:** rectum
- Enemas are reserved for:
  - Immediate relief is needed
  - Constipation that failed traditional laxatives
  - Oral medication is not an option
  - Fecal impaction
- ADEs: rectal irritation
  - Fleet enema – hypotension and volume depletion, hyperphosphatemia, hypo- or hyperkalemia, metabolic acidosis, severe hypocalcemia, renal failure, and QT prolongation
- CI: rectal bleeding, recent surgeries, severe abdominal pain

Medication	Dose Range	Onset
Bisacodyl suppository (Dulcolax®)	1 supp PR up to 3x/wk prn	**15-60 mins**
Glycerin suppository	1 supp PR daily prn	**15-60mins**
Tap water enema	1 enema PR daily prn	**2-15 mins**
Sodium phosphate enema (Fleet Enema®)	1 enema PR prn	**5-10 mins**
Sorbitol 30% solution enema	120ml PR prn	**15-60 mins**
Mineral oil enema	1 enema PR prn	**2-15 mins**

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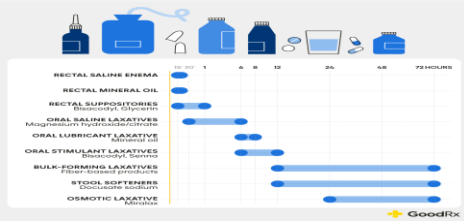
Timing is Everything



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Managing Refractory Opioid-Induced Constipation

- **MOA:** antagonize peripheral μ-opioid receptors, preventing opioids from binding, alleviating constipation
  - Limited ability to cross the blood-brain barrier → do not compromise central analgesia
- **Site of action:** mu-opioid receptors in the GI tract
- Less beneficial if taking opioid for <4 weeks
- Discontinue all laxatives prior to initiating a PAMORA
- ADEs: abdominal pain, diarrhea, nausea and vomiting
  - Serious ADEs: stomach/intestinal wall perforation, opioid withdrawal
- CI: intestinal obstruction or history of intestinal obstruction

Medication	Onset of Action	Clinical consideration
Methylnaltrexone (Relistor®)	Within 4h	• FDA approved for patients in palliative care with advanced illness or pain caused by active cancer, patients with chronic non-cancer pain • Efficacy: SQ > PO • Take on empty stomach • Dose reduction in elderly patients, hepatic and renal impairment • No CYP450 DDI
Naloxegol (Movantik®)	Within 3h	• FDA approved for patients taking opioids for chronic non-cancer pain • Off label for active cancer pain • Take on empty stomach • Reduce to 12.5mg if diarrhea, abdominal pain, or mild/mod renal impairment • Avoid if severe hepatic impairment • Metabolized by the CYP3A4
Naldemedine (Symproic®)	Within 24h	• FDA approved for patients taking opioids for chronic non-cancer pain • Off label for active cancer pain • Avoid in severe hepatic impairment • Metabolized by the CYP3A4

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Knowledge Check

- Which intervention best reflects proactive hospice management of opioid-induced constipation?
- A. PRN laxatives only
- B. Scheduled bowel regimen with education
- C. Discontinuing opioids
- D. Reassurance without intervention

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HOPE SFV Discussion

- How will you determine appropriate f/u timing for Mr. J's constipation?

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Mr. J: Diarrhea

Several weeks later, Mr. J develops loose stools occurring 4-5 times daily. Caregiver reports urgency and fatigue.

HOPE Assessment:	New moderate diarrhea Possible medication-related etiology Increased risk of dehydration and caregiver burden
Clinical Interventions:	Medication review completed; laxatives adjusted Hydration encouraged as tolerated; education provided

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Causes of Diarrhea

Medications	Psychological factors	Cancer	Short Bowel Syndrome
IBD	Viral infections	Food intolerance	Osmotic
Laxative Overuse	C Diff	Chemo	Severe constipation/fecal impaction (overflow diarrhea)

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Medication Causes of Diarrhea

- Antibiotics
- Antihypertensives
- Antivirals (protease inhibitors)
- Chemotherapeutic agents
- Cholinesterase inhibitors
- HMG-CoA reductase inhibitors ("statins")
- Laxatives
- Magnesium-containing antacids
- Metoclopramide
- Misoprostol
- Proton pump inhibitors
- Theophylline

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Medication Management of Diarrhea

Medication	Considerations
Antibiotics	Used for infectious diarrhea, such as C. difficile enteritis (metronidazole, vancomycin)
Bismuth (Kaopectate®, PeptoBismol®)	30mL (262mg/15mL) or 2 tablets PO every 60 minutes; PRN; Max dose: 240mL or 4.2gm/day Provides modest relief; may take up to 48 hours to be effective; Can interfere with absorption of certain medications; separate doses
Diphenoxylate-atropine (Lomotil®)	5mL or 1 tablet (2.5-0.025mg) PO between meals and HS, up to 8 tabs or 40mL/day
Loperamide (Imodium®)	Reduces gut peristalsis and increases water reabsorption; initial dose of 4 mg, titrate to 2 mg after each loose stool; max 16 mg/day (up to 54 mg/day in palliative care); use with caution in suspected infectious diarrhea.
Cholestyramine	Mix 2gm in 60mL to 180mL of fluid and drink PO BID, up to 32gm/day May interfere with absorption of other medications; separate doses to minimize interaction; consider fluid requirement of 60-120 mL with administration; palatability can be improved by premixing the dose and refrigerating
Levsin (Hyoscyamine)	Used for cramping symptoms related to diarrhea.

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Diarrhea Treatment

- Diarrhea usually improves **within 48 hours of initiating treatment**
- After clinical improvement is observed, the dose should be reduced or the medication should be discontinued
- If clinical improvement is not observed within a few days of treatment with the maximum daily dose, symptoms are unlikely to be controlled by further administration of this medication
- Do not use agents that reduce motility (codeine, diphenoxylate, loperamide, opium tincture) in patients presenting with C. difficile or invasive bacterial infectious diarrhea. They may increase the severity of the infection and/or lead to pseudomembranous colitis

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Treating Refractory Diarrhea

- Several case reports and small trials showing benefit of clonidine for treatment-refractory diarrhea
- Dose range was 0.1 – 1.2 mg per day; route of administration was oral or transdermal.

Fraglos KC, et al. What about clonidine for diarrhoea? A systematic review and meta-analysis of its effect in humans. Therap Adv Gastroenterol. 2016 May;9(3):282-301.

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Knowledge Check

- What is the most appropriate first step when diarrhea develops in hospice patients?
- A. Immediately start multiple antidiarrheal medications
  B. Discontinue all medications
  C. Review medications and assess underlying cause
  D. Wait several days before intervening

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Mr. J: Sadness/Depression

Assessment	Mild to moderate sadness Preserved cognition Emotional impact affecting engagement)
Clinical Interventions	Supportive therapeutic communication Validation of emotional experience Social worker referral Education provided to family on normal emotional responses Pharmacologic therapy considered based on prognosis

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Sadness/Depression Symptoms

Common Symptoms	Other Symptoms
•Feelings of sadness/unhappiness •Irritability •Loss of interest/pleasure in normal activities •Insomnia or hypersomnia •Changes in weight or appetite •Psychomotor agitation or retardation	•Poor concentration or indecisiveness •Fatigue or diminished energy •Feeling of worthlessness or excessive guilt •Recurrent thoughts of death, suicidal ideation, or suicidal behavior •Crying spells and unexplained physical problems

Did the patient show any feelings of sadness?

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Medication Causes of Sadness/Depression

- Baclofen
- Barbiturates
- Benzodiazepines
- Beta-blockers
- Clonidine
- Corticosteroids
- Diuretics
- Opioids

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Medication Management of Sadness/Depression: Longer Prognosis

Pharmacotherapy

Selective Serotonin Reuptake Inhibitors (SSRIs)

Medication	Initial Dosing
Sertraline (Zoloft®)	25mg PO daily
Citalopram (Celexa®)	10mg PO daily
Escitalopram (Lexapro®)	10mg PO daily
Fluoxetine (Prozac®)	10mg PO daily
Fluvoxamine (Luvox®)	50mg PO daily
Paroxetine (Paxil®)	20mg PO daily

Clinical Considerations

- **Prognosis ~ (at least) a few months (onset is 4-6 weeks)**
- Most effective drug class for patients with concomitant anxiety
- All can lower seizure threshold
- Sertraline has the most favorable balance between effectiveness, tolerability, drug interactions, and cost
- Dose-dependent QTc prolongation (citalopram, escitalopram)
- Black box warning for suicidal ideation
- Sertraline may be increased by 25-50mg every week
- Citalopram may be increased by 20mg after one week of therapy
- Escitalopram & paroxetine may be increased by 5mg every 1-2 weeks
- Fluoxetine possesses a longer half-life and interacts with other medications. Fluoxetine may be increased by 10-20mg every month.

https://clinicalkey.com/pharmacology

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Medication Management of Depression: Shorter Prognosis

- Methylphenidate (Ritalin®)
  - Short-term treatment
  - Onset within a few days; limited to several weeks' effectiveness
  - Can improve symptoms such as fatigue, apathy, inability to concentrate
  - May increase anxiety/agitation and decrease appetite
- Dexamethasone (Decadron®)
  - Evidence for benefit in improving fatigue, anorexia

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Knowledge Check

- Which intervention most strongly supports CAHPS outcomes when addressing sadness in hospice?
- A. Avoid emotional discussions
  B. Immediate antidepressant initiation without assessment
  C. Therapeutic listening and validation with interdisciplinary support
  D. Focus only on physical symptoms

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Mr. J: Agitation/Delirium

In the final weeks of life, HOPE reassessment identifies increasing agitation and confusion, particularly in the evenings. Family reports restlessness and poor sleep.

Assessment	Increased agitation Declining cognition Possible terminal delirium
Clinical Interventions	Assessment for reversible causes (pain, constipation, hypoxia) Haloperidol added for terminal agitation Environmental calming strategies implemented Due to high symptom burden, daily nursing visits begin.

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Knowledge Check

- **Which nursing action most supports positive CAHPS scores during terminal agitation?**
  - A. Avoiding discussions about dying
  - B. Providing reassurance and explaining what agitation means
  - C. Reducing visit frequency
  - D. Focusing only on medications

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Agitation and Restlessness

- Agitation is an emotional state of excitement.
- Restlessness is a state in which one is not able to rest, relax, or be still.

Agitation or restlessness should be presumed to be a manifestation of delirium in the hospice patient until proven otherwise.

- Physical aggression
- Verbal aggression
- Kicking
- Scratching others
- Self injury
- Throwing objects
- Irritability
- Pacing/wandering
- Screaming
- Crying
- Suspiciousness
- Extreme arousal

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Causes of Agitation/Delirium

Co-Morbidities
Infections
Insomnia
Malnutrition
Metabolic abnormalities
Organ failure
Tumor burden

Medications (40% of cases)
Anticholinergics
Benzodiazepines
Steroids
Opioids

Other Factors
Age
Alcohol/drug withdrawal
Dehydration
Fecal impaction
Urinary retention
Constipation
Sleep deprivation
Uncontrolled pain

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Medications Associated with Delirium

Drug Class	Specific Drug Types	Examples
Anticholinergics	H_1 receptor blockers Anti-Parkinson Phenothiazine	diphenhydramine, meclizine, hydroxyzine benztropine promethazine
Antidepressants	Tricyclics SSRIs	amitriptyline, nortriptyline fluoxetine, paroxetine
Sedative	Benzodiazepines	alprazolam, diazepam, temazepam
Opioid	Opioids	codeine, morphine, hydromorphone, fentanyl, tramadol
Antihypertensive/antiarrhythmic	Beta blockers ACE inhibitors Calcium channel blockers Other	metoprolol, propranolol lisinopril, captopril amlodipine, nifedipine digoxin
Antibiotics	Quinolones Macrolides	levofloxacin, ciprofloxacin azithromycin, clarithromycin
Anticonvulsants	Barbiturates	phenobarbital
Steroids	Corticosteroids	dexamethasone, prednisone, prednisolone, methylprednisolone

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Thank You!

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