HOSPICE

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EDUCATIONAL RESOURCES

NON-PAIN SYMPTOM MANAGEMENT

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April 6, 2021

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OBJECTIVES

- Identify commonly reported non-pain symptoms experienced by palliative care patients
- Review non-pharmacologic and pharmacologic interventions for commonly experienced non-pain symptoms
- Discuss formulary medication selection

SYMPTOMS IN ADVANCED ILLNESS

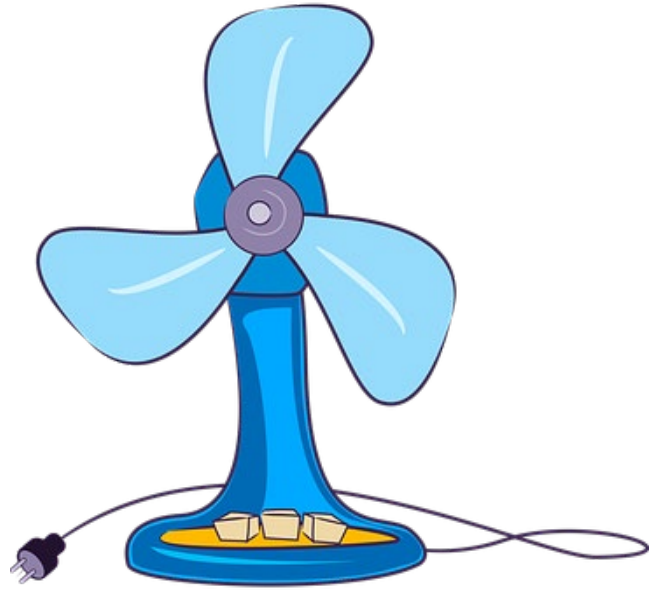
- Fatigue
- Pain
- Gastrointestinal Symptoms
- Xerostomia
- Cachexia-Anorexia
- Insomnia
- Depression
- Dyspnea

DYSPNEA

- Breathing discomfort
  - Subjective
  - Sensations experienced or described may vary
- Symptoms: chest tightness, breathlessness, wheezing
- Underlying causes: tumor, COPD, CHF, pneumonia, fluid accumulation, anemia, aspiration, electrolyte imbalance, fatigue, anxiety
- Not always reflective of respiratory rate or oxygen saturation

DYSPNEA

- Non-pharmacologic Interventions
  - Calm patient
  - Semi-reclined or seated position
  - Modification of activity level
  - Cool compress to the cheek
  - Pursed-lip technique
  - Ensure air supply: open window, fan, oxygen



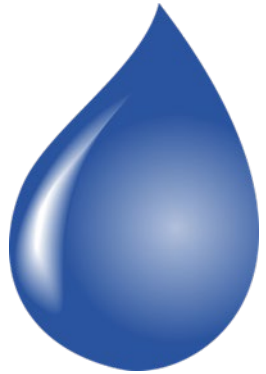
J Palliat Medicine 2011;14(10):1167-1172.

DYSPNEA

- Opioids
  - Systemic: Morphine is most widely studied
  - Nebulized: Mixed data
- Benzodiazepines
  - Patient specific recommendation
  - Use caution when co-prescribing
- Others
  - Bronchodilators
  - Glucocorticoids
    - Underlying causes: COPD, SVC, tumor related upper airway obstruction
  - Diuretics
    - Loop diuretics for patients with congestive heart failure

SECRETIONS

- Turbulence as air moves over pooled secretions
  - produces noisy ventilation
- Education
- Non-Pharmacologic Interventions
  - Change position
  - Re-evaluate IV hydration

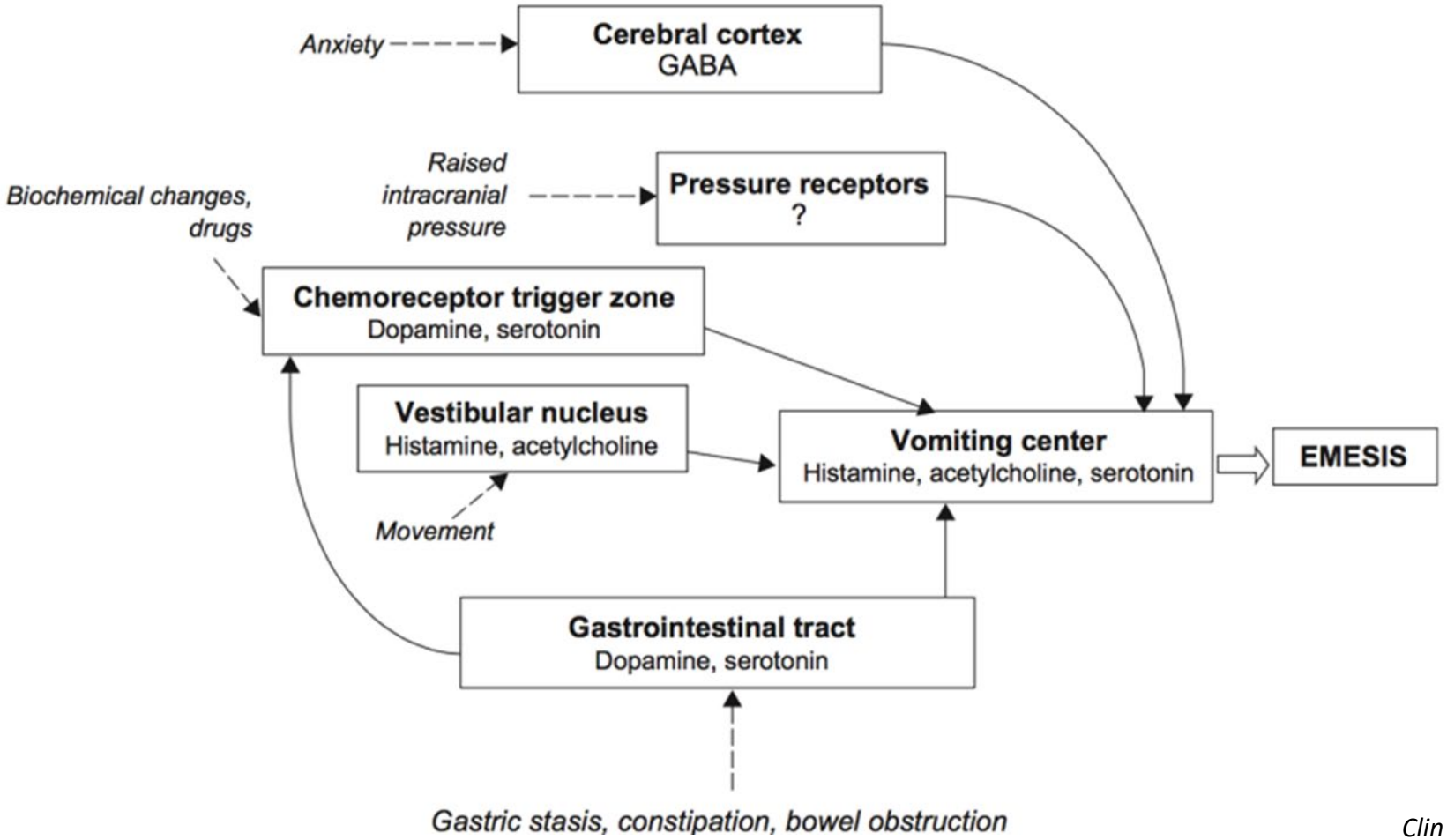


J Palliat Medicine 2013; 16(10): 1255-1259.

SECRETIONS

- Anticholinergics:
  - Atropine (Isopto Atropine®)
    - 1% Ophthalmic Solution sublingually at 1-2 drops hourly until controlled and then Q4-6H PRN.
  - Hyoscyamine (Levsin®)
    - 0.125-0.25mg SL Q6-8H PRN
  - Scopolamine (Transderm-Scop®)
    - 1.5mg transdermal patch placed behind the ear Q72H
  - Glycopyrrolate (Robinul®)
    - 1-2mg PO Q8H PRN

NAUSEA AND VOMITING



Clin Interv Aging. 2011;6:243-59

NAUSEA AND VOMITING

First, think drugs!

- Examples: Chemotherapy, opioids

Avoid triggers

- Examples: Strong smells, spicy foods

Small, frequent meals

- Examples: Bland foods, avoid greasy meals

Clear liquids, small sips

NAUSEA AND VOMITING

Medication	Dopamine Antagonist	Histamine Antagonist	Anti-Cholinergic	Serotonin Antagonist
Haloperidol	X***			
Prochlorperazine	X**	X*		
Promethazine	X*	X***	X**	
Metoclopramide	X**			X**
Ondansetron				X***
Chlorpromazine	X**	X**	X*	

* Low affinity to receptor, **Moderate affinity, ***High affinity

NAUSEA AND VOMITING

- Empiric therapy = Block dopamine
  - Metoclopramide 10mg PO q6h (may be dosed QID around meals/bedtime)
    - GI motility and dopamine antagonist
    - Available formulations: PO, IM, IV
  - Haloperidol 0.5mg PO q4-6h prn
    - Renal or hepatic impairment may require a dose reduction
    - Available formulations: PO, Subcutaneous, IV
  - Prochlorperazine 5-10mg PO q6-8h prn
    - Also blocks histamine receptor
    - Available formulations: PO, PR, IM, IV
- Alternatives: Promethazine, lorazepam, dexamethasone, ondansetron, chlorpromazine, octreotide

AGITATION

- Potential Causes
  - Physical discomfort
  - Environment
  - Urinary tract infection
  - Organ failure
  - Substance withdrawal
  - Psychosocial distress
  - Drugs:
    - Corticosteroids, anticholinergics, opioids, benzodiazepines, dopamine

J Palliat Med. 2013; 16(4):426-432.

AGITATION

- Non-pharmacologic Interventions
  - Reorient patient
    - Place
    - Date- calendar
    - Time- clock
  - Stable environment
    - Keep familiar objects in view
    - Calm, quiet
  - Caregiver continuity
  - Sleep hygiene
  - Eyeglasses and hearing aids
  - Rule out reversible causes
    - Monitor: bowel and bladder function

AGITATION

- Antipsychotics

Haloperidol	• 0.5mg PO Q4H PRN • Formulations: PO, Subcutaneous, IV
Risperidone	• EPS at higher doses; mirrors first-generation drugs • Formulations: PO (tablets, solution), ODT, long-acting IM injection
Quetiapine	• Formulations: PO tablets (IR and XR)
Olanzapine	• Formulations: PO tablets, ODT, IM injection (immediate and long-acting pamoate)
Ziprasidone	• Formulations: PO capsules, IM injection (immediate-release)

ANXIETY

- Potential Causes
  - Medication withdrawal
    - Benzodiazepines
    - Sedatives
    - Alcohol
  - Illness exacerbation
  - Social changes
  - Uncontrolled symptoms
  - Lack of knowledge or understanding
  - Drugs: CNS stimulants, antipsychotics, beta-agonists, corticosteroids, nasal decongestants, thyroid replacements

ANXIETY

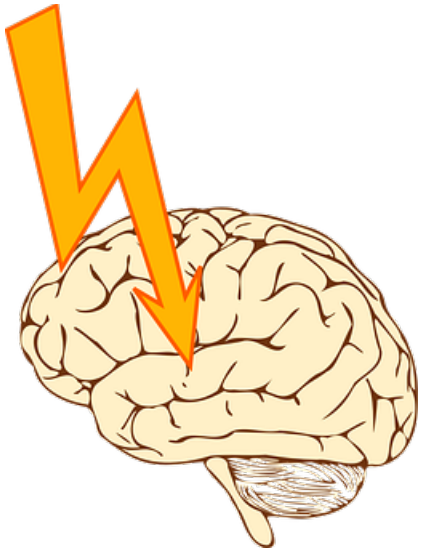
- Non-pharmacologic Interventions
  - Regularly screen and assess
  - Support and reassurance
  - Use your interdisciplinary team!
    - Social workers, spiritual counsel, psychology
  - Cognitive Behavioral Therapy (CBT)
    - Relaxation, distraction, guided imagery
  - Treat the underlying cause

ANXIETY

- Benzodiazepines
  - Lorazepam 0.5mg PO Q4H PRN
- Selective Serotonin Reuptake Inhibitors (SSRIs)
  - Citalopram 20mg PO daily
  - Sertraline 25-50mg PO daily
- Selective Norepinephrine Reuptake Inhibitors (SNRIs)
  - Duloxetine 30mg PO daily
- Antipsychotics or Anticonvulsants
  - Conventional or Atypical antipsychotics
    - Examples: Haloperidol or Quetiapine
  - Anticonvulsants
    - Example: Pregabalin

SEIZURES

- Screen for potential causes
  - Cancer with brain metastases, stroke, metabolic causes
  - Medications
    - Tricyclic antidepressants, bupropion, meperidine, tramadol
- Continue prophylactic medications for as long as possible
- If the potential for seizure is suspected, consider emergency seizure kit
  - Benzodiazepine in a non-oral formulation



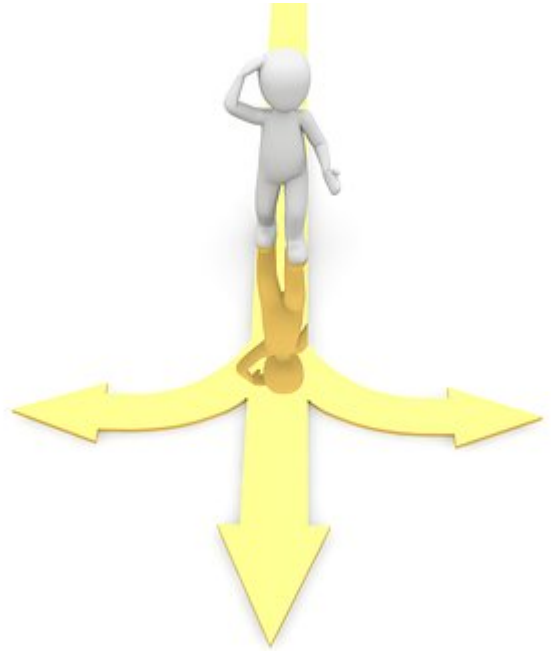
SEIZURES

- Benzodiazepines are the drugs of choice (active seizure)
- First line therapies (rapid onset):
  - Lorazepam
    - 2mg PO/SL/IM/IV/PR Q15 Minutes PRN
  - Diazepam (Valium®)
    - 10mg PO/SL/IM/IV/PR Q15 Minutes PRN
      - Max dose = 40mg
  - Diazepam (Diastat®) Rectal Gel
    - 0.2mg/kg PR, round down to reduce ataxia and sedation
    - Second dose may be given 4-12 hours after initial dose
    - Should not be used more than once every 5 days

J Pain Symptom Manage. 2008 Jul;36(1):97-105.

PALLIATIVE SEDATION

- The use of sedative medications to relieve severe refractory symptoms at end of life
- Provides relief of intolerable suffering for terminally ill patients
- Refractory pain, dyspnea, agitated delirium and convulsions
  - Refractory = not adequately controlled by regimens that do not severely compromise consciousness



PALLIATIVE SEDATION

Medication	Starting Dose*	Tips
Benzodiazepines		
Lorazepam	0.5mg PO Q4H PRN	Refrigerate solution
Midazolam	0.5mg/hour infusion	
Antipsychotics		
Haloperidol	0.5mg PO Q4H PRN	Delirious patients
Chlorpromazine	25mg PO Q4-12H PRN	
Barbiturates		
Phenobarbital	60mg PR Q4H PRN	Long half-life
Pentobarbital	1mg/kg/hour infusion	Short-supply; costly!
Opioids are NOT for palliative sedation!		

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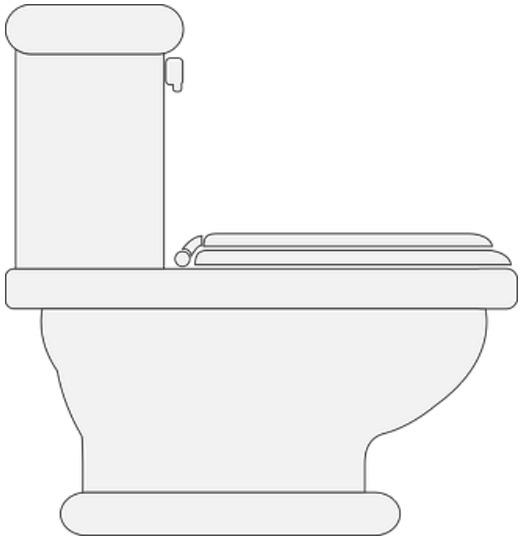
ADDITIONAL SYMPTOMS

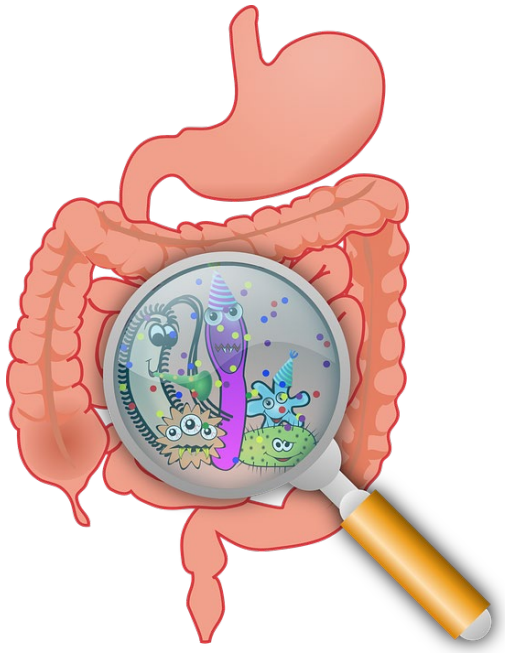
CONSTIPATION

- Non-pharmacologic Interventions
- Formulary medications:
  - Bulk-forming laxatives
  - Enemas
  - Osmotic laxatives
  - Stimulant laxatives
  - Stool softeners
- Alternative medications:
  - Opioid Antagonists
  - Others (Linaclotide, Lubiprostone)



DIARRHEA

- Non-pharmacologic Interventions
  - BRAT diet, rehydration, dietary modifications
- Formulary medications:
  - Anti-motility agents
  - Anti-secretory/Absorbent agents
  - Bulk-forming agents
- Alternative medications
  - Antibiotics- *C. difficile*
  - Octreotide
  - Pancrelipase



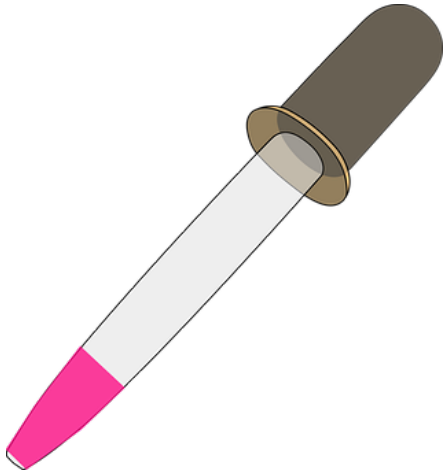
COUGH

- Non-pharmacologic interventions
  - Humidity, warm fluids, lozenges
- Treat underlying cause first
  - Example: intranasal glucocorticoids for post-nasal drip
- Formulary Medications
  - Opioids
    - Example: Morphine 5mg PO Q4H PRN
  - Centrally-acting non-opioid antitussives
    - Example: Dextromethorphan 10mg PO Q4-6H PRN
  - Non-opioid antitussives
    - Example: Benzonatate 100mg PO TID PRN

Oxford Textbook of Palliative Medicine. 5th Ed. Oxford: Oxford University Press; 2015

DYSPHAGIA

- Non-pharmacologic Interventions
- Oral route always preferred if patient can swallow
- Crush immediate-release medications for cost-savings
- Oral solutions or concentrates
  - Concentrated solutions may be administered SL or buccally
  - Volumes ⩽ 1ml can be passively swallowed
- Rectal administration
  - Tablets
  - Suppositories



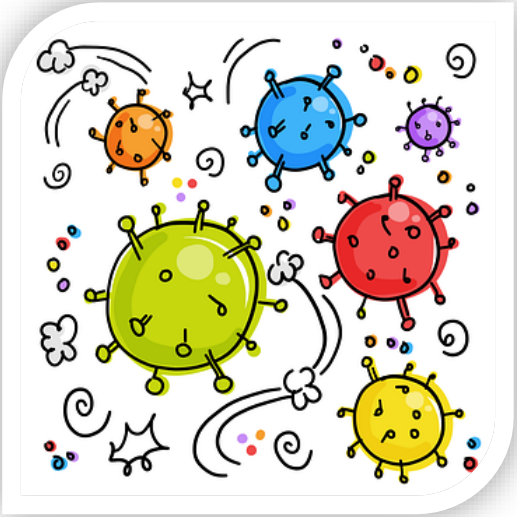
Oxford Textbook of Palliative Nursing. 5th Ed. Oxford: Oxford University Press; 2015

HICCUPS

- Non-pharmacologic Interventions
  - Breath holding, paper bags, ice application, inducing sneeze/cough
- Formulary Medications
  - Drugs that cause a reduction in gastric distention
    - Simethicone
    - Metoclopramide 10mg PO Q6H
  - Muscle relaxants
    - Baclofen 5mg PO Q6H
  - Dopamine antagonists
    - Haloperidol 2mg PO Q4H

INFECTIONS

- Not uncommon in end-of-life care
- Treating with antimicrobials at end-of-life is controversial
- Symptomatic improvement unlikely for all infections, especially when prognosis is weeks to short months
  - Treating urinary tract infections may provide symptomatic relief
  - Treating respiratory infections is less likely to provide symptomatic relief
- Weigh risks of adverse effects vs. benefit
- Consider treating symptoms of infection
  - Example: opioids for dyspnea



Fast Facts and Concepts #351

INSOMNIA

- Nonpharmacological Interventions
  - Good sleep hygiene!
- Medication selection is based on clinical symptoms, goals of care, and prognosis
  - Benzodiazepines
  - Zolpidem
  - Antidepressants
  - Melatonin

J Clin Sleep Med. 2017;13(2):307-349

PRURITUS

- Non-pharmacologic interventions
  - Treat dry skin, avoid chemicals, cool compress, cool environment, oatmeal bath
- Frequently used medications
  - Camphor and menthol
  - Topical steroids
    - Example: Hydrocortisone 1% cream applied topically BID PRN
  - Antifungals
    - Example: Clotrimazole 1% cream applied topically BID PRN
  - Antihistamines
    - Example: Diphenhydramine 25mg PO Q6H PRN
  - Other
    - Cholestyramine (liver induced) or Gabapentin (kidney induced)

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QUESTIONS?

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