

I can't breathe!	That stinks!	Ouch!	You make me sick!	Leave me alone!

Symptom Management Quiz Show

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I can't breathe!	That stinks!	Ouch!	You make me sick!	Leave me alone!
<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>
<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>
<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>

Question

True or False: The goal of treating dyspnea in patient's receiving hospice care is to lower the respiratory rate.

I can't breathe! 10

Answer

False. Dyspnea is subjective experience and may not correlate with respiratory rate or pulse oximetry.

- Manage dyspnea based only on patient-directed care need
- Medicating to lower the RR increases risk of overuse of opioids and respiratory depression
- Dyspnea is usually experienced in conjunction with other symptoms (anxiety, depression, panic, pain, spiritual distress)

I can't breathe! 10

Question

This class of medications is most studied and most used to manage dyspnea in hospice care.

I can't breathe! 20

Answer

What are opioids?

- primarily morphine, hydromorphone, oxycodone
- sublingual, oral, parenteral administration
- opioids decrease response to hypoxia and hypercapnia, decrease perception of respiratory distress, some vasodilation in lungs

I can't breathe! 20

Question

This simple, non-pharmacological intervention is safe and inexpensive and effective for dyspnea.

I can't breathe!

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Answer

What is a hand-held fan?

- studied in patients with advanced disease, dyspnea, and no oxygen therapy
- sensation of movement of air on face
- attach ribbons to a larger room or window fan

I can't breathe!

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Question

This new inhaler combines 3 different medications into a single device and is dosed only 1 inhalation/day!

I can't breathe!

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Answer

What is Trelegy® Ellipta (fluticasone-umeclidinium-vilanterol)?

Approved September 2017

Fixed dose dry powder inhaler (DPI) for COPD

- Corticosteroid (fluticasone)
- Long acting anticholinergic (umeclidinium)
- Long acting beta agonist (vilanterol)

Note: there are about 30 different inhalers now!

I can't breathe!

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Question

Zelda is a 73 year old with end stage COPD. Her PMH includes diabetes, dementia, and osteoarthritis. Name 3 assessment points that will help you determine her ability to use her inhalers effectively.

I can't breathe!

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Answer

What are functional status, cognitive status, dexterity?

- PPS > 40% - ability to sit upright and complete the steps needed for inhaler use
- Coordination of device activation and breath inhalation
- Ability to understand and successfully use multiple devices (MDI vs DPI, number of doses per day)
- Change to nebulized medications?

I can't breathe!

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Question

This is the classic hospice choice for preventing and treating constipation.

That stinks!

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Answer

What is senna + docusate (Senna-S®)?

- Senna: stimulant laxative
 - Direct action on intestinal mucosa; limited systemic absorption
- Docusate: stool softener/surfactant
 - Avoid use if patient can't swallow whole capsules
- Titrate up to 4 tabs BID

That stinks!

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Question

This injectable medication is FDA-approved for opioid-induced constipation (OIC)

That stinks!

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Answer

What is methylnaltrexone (Relistor®)?

- Peripherally-acting mu-opioid receptor antagonist (PAMORA)
- Molecular structure restricts ability to pass into the CNS; does not affect opioid analgesia
- Consider for refractory OIC after optimizing standard laxatives
- Avoid in known or suspected GI obstruction; risk of GI perforation
- Now available in oral tablets!
- SQ: \$130/dose PO: \$65/dose

That stinks!

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Question

This anti-diarrheal medication will soon be repackaged to prevent diversion and misuse.

That stinks!

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Answer

What is loperamide (Imodium AD)?

- Cases of *Torsades* and sudden cardiac death have been reported with higher than recommended doses (200mg vs 2mg dose)
- Called "poor man's methadone" by abusers to help alleviate withdrawal symptoms
- New packaging will contain at most 8 tabs (2mg each)
- May move BTC like pseudoephedrine products

That stinks!

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Question

Four classes of medications usually required to control symptoms of a malignant bowel obstruction at end of life.

That stinks!

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Answer

What are opioid, anti-cholinergic, anti-emetic, corticosteroid?

- opioid – pain control
- anticholinergic – reduce secretions and GI cramping
- anti-emetic – control nausea
- corticosteroid – reduce inflammation, +/- nausea, pain
- +/- octreotide (Sandostatin®) if symptoms not controlled with above

That stinks!

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Question

Besides the opioid, what medications is Mrs. Smith taking that might be contributing to her constipation?

Mrs. Smith's Medication List

- Morphine (MS Contin®) 15mg Q12H
- Morphine (Roxanol®) 5mg Q4H PRN pain, dyspnea
- Lorazepam (Ativan®) 0.5mg Q6H PRN anxiety, dyspnea
- Oxybutynin (Ditropan® XL) 10mg QHS
- Furosemide (Lasix®) 40mg QAM
- Calcium carbonate 500mg QDay
- Iron sulfate 325mg QDay
- Verapamil (Calan® SR) 180mg QDay
- Amitriptyline (Elavil®) 25mg QHS
- Acetaminophen (Tylenol®) 500mg Q6H PRN headache, mild pain

That stinks!

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Answer

Mrs. Smith's Medication List

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- ✓ Amitriptyline (Elavil®) 25mg QHS
- Acetaminophen (Tylenol®) 500mg Q6H PRN headache, mild pain

That stinks!

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Question

List at least 3 classes of medications, besides opioids that are used to manage pain.

Ouch!

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Answer

Class	Examples
Antidepressants (neuropathic pain)	venlafaxine, duloxetine, milnacipran, nortriptyline, desipramine
Antiepileptics (neuropathic pain)	gabapentin, pregabalin
NSAIDs (inflammatory pain)	ibuprofen, naproxen, meloxicam, diclofenac
Corticosteroids (inflammatory pain)	dexamethasone, prednisone
Topical anesthetics (superficial pain, wounds)	lidocaine
Anticholinergics (cramping, colicky pain)	dicyclomine, hyoscyamine
Muscle relaxants (muscle cramps, spasms)	baclofen, cyclobenzaprine, tizanidine

Ouch!

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Question

This opioid tablet may be crushed or given as a liquid and still maintain its long-acting properties.

Ouch!

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Answer

What is methadone?

- Onset of analgesia: 0.5-1 hour
- Duration of analgesia: 4-24 hours (longer with repeated dosing)
- Half-life: 35 hours (range 9-87)

Ouch!

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Question

Besides opioid receptor activity, tramadol (Ultram®) also inhibits these 2 neurotransmitters increasing the risk of some adverse events and drug interactions and providing some neuropathic pain benefit.

Ouch!

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Answer

What are serotonin and norepinephrine?

- May provide additional benefit for neuropathic pain similar mechanism as duloxetine (Cymbalta®) or venlafaxine (Effexor®)
- Require ceiling dose of 300-400mg/day
- Caution in liver and renal impairment
- Risk of serotonergic excess leading to serotonin syndrome
- Risk of seizures especially if history of seizures, other drugs lowering seizure threshold, head trauma, CNS malignancy, stroke

Ouch!

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Question

List at least 3 factors influencing absorption of transdermal fentanyl.

Ouch!

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Answer

Absorption of transdermal fentanyl (Duragesic®) may be altered by

- Adherence of the patch to the skin
- Diaphoresis
- Fever or application of heat
- Poor skin perfusion
- Impaired skin permeability
- Lack of subcutaneous fatty tissue

Ouch!

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Question

Mrs. Ow is an 85 yo female with end stage dementia (FAST 7b) with dyspnea, signs of anxiety (tearfulness, calling out, rocking back and forth in Broda chair), and insomnia. She fights with caregivers during most personal care and refuses showers. How might you assess her for pain and how would you treat her pain?

Ouch!

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Answer

Uncontrolled pain may be a contributing factor to all of the symptoms the patient expresses.

- PAIN-AD (Pain Assessment in Advanced Dementia) scale
- Consider trial of non-opioid for generalized somatic pain (acetaminophen) unless other painful condition warrants low dose opioid
- In general, avoid scheduled NSAIDs in elderly
- Don't forget to add the Senna S if an opioid is initiated.

Ouch!

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Question

This medication is commonly used off-label for patients with nausea & vomiting.

You make me sick!

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Answer

What is haloperidol (Haldol®)?

- Dopamine antagonist
- Acts in chemoreceptor trigger zone in CNS
- Lower doses for antiemetic than antipsychotic use
- Versatile routes of administration (PO, SL, PR, SC, IV, IM)
- Butyrophenone structure – useful in phenothiazine allergies (promethazine & prochlorperazine)

You make me sick!

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Question

This prokinetic will stimulate gastric emptying and is FDA-approved for diabetic gastroparesis.

You make me sick!

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Answer

What is metoclopramide (Reglan®)?

- Blocks dopamine and serotonin in CNS, enhances response to acetylcholine in the upper GI tract
- Empty stomach 30 minutes prior to meals
- Higher risk of EPS in elderly and at higher doses (>40mg/day)
- Reduce dose in renal disease (CrCL < 40mL/min)
- Recommend AIMS assessment for patients on chronic therapy
- Avoid use in patients with Parkinson's disease

You make me sick!

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Question

This commonly used anti-emetic is considered a psychotropic-antipsychotic under the new LTC Mega Rule (Reform of Requirements for Long Term Care).

You make me sick!

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Answer

What is prochlorperazine (Compazine®)?

- Originally developed as an antipsychotic
- As an anti-psychotic, is now limited to 14 day PRN use in LTC facilities and the order may not be extended.
- The prescriber must directly evaluate the resident, document assessment and need, and initiate a new order

You make me sick!

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Question

Two FDA-approved medications are synthetic derivatives of this alternative medicine used for chemotherapy induced nausea & vomiting (CINV).

You make me sick!

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Answer

What *Cannabis spp* aka “medical marijuana”?

- CS/MM not recommended by NCCN
- No comparison studies between CS/MM and other anti-emetics
- CS/MM: understudied, limited efficacy & safety information
- Endocannabinoid system includes CB1 receptors throughout the CNS and PNS (enteric)
 - Dronabinol (Marinol®) activity on CB1 and CB2 receptors (\$12/dose)
 - Nabilone (Cesamet®) activity at CB1 receptors (\$47/dose)
 - Both approved for refractory N/V associated with chemotherapy **when conventional anti-emetics have failed**

You make me sick!

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Question

Mrs. Pal is an 85 year old patient with ES heart failure; meds are digoxin, carvedilol, aspirin, furosemide, KCl, simvastatin, morphine, haloperidol, famotidine, lorazepam – complains of nausea and loss of appetite. What should we do?

You make me sick!

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Answer

Assessment of nausea & vomiting includes

- thorough medication review (drug toxicities & side effects)
- reduce pill burden
- evaluate other systems and comorbid (especially GI & renal)

You make me sick!

50

Question

The 2 major pharmacological categories of antipsychotics.

◀ Leave me alone!

▶ 10

Answer

What is conventional and atypical?

- aka: typical & atypical; 1st & 2nd generation
- cardiovascular mortality risk is similar for both classes
- neurotransmitter targets differ between classes
- no antipsychotics are FDA-approved for use in BPSD

◀ Leave me alone!

▶ 10

Question

This new medication is indicated for pseudobulbar affect. Clinical trials are underway for use in BPSD.

◀ Leave me alone!

▶ 20

Answer

What is quinidine-dextromethorphan (Nuedexta®)?

- 2 old drugs (<\$1/dose) combined into a capsule (\$19/dose)
- NMDA receptor antagonist
- Quinidine is added to block metabolism of DXM
- AE: diarrhea, dizziness, falls, peripheral edema, weakness
- Recent negative press: 50% of prescriptions for LTC residents even though not well studied in elderly patients

◀ Leave me alone!

▶ 20

Question

A common, under-reported and under-treated symptom in “agitated” patients with dementia.

◀ Leave me alone!

▶ 30

Answer

What is pain?

- Critically important to assess patients with dementia for unmet needs
- Painful condition in patient’s PMH?
- Trial of scheduled acetaminophen
- Pain Assessment in Advanced Dementia (PAINAD) tool
- Geriatricpain.org

◀ Leave me alone!

▶ 30

Question

This type of treatment for BPSD must be initiated prior to use of antipsychotic medications and continued even if antipsychotic medications are initiated.

◀ Leave me alone! 40 ▶

Answer

What is non-pharmacological treatment or behavioral interventions?

- integrate your hospice team with the nursing facility team
- music therapy, activity blankets, calm environment
- *inadequate* indications for ATP use: wandering, restlessness, uncooperativeness
- F757 (unnecessary medication use)
- F758 (psychotropic medications)

◀ Leave me alone! 40 ▶

Question

Karl is a 78 year old with Lewy Body Dementia. He presents with agitation, biting, and hitting caregivers. What therapeutic interventions can be considered for this person in a LTCF?

◀ Leave me alone! 50 ▶

Answer

Thorough patient review:

- chronic comorbid illness
- rule out infections
- any pertinent labs
- basic physical needs (constipation, hunger, body temp)
- complete medication profile review (including start and stop of meds)
- caregiver-based factors
- environmental-based factors
- if determined necessary, what ATP is preferred?

◀ Leave me alone! 50 ▶

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Pharmacology Quiz Show

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