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## “Lunch & Learn” Seminar — Independent-Study Program

Provided by Hospiscript Services, LLC and the  
Midwest Center for Home, Hospice & Palliative Care Education  
Management of End-of-Life Symptoms: Nausea/Vomiting and Constipation  
(04/2011) April 30, 2012

Hospiscript Services and the Midwest Center for Home, Hospice & Palliative Care Education are pleased to announce that our very popular “Lunch & Learn” seminars are now available online as self study programs offering continuing educational (CE) credit. These learning modules are accessible to Hospiscript clients via [www.hospiscript.com](http://www.hospiscript.com) and to Midwest Care Alliance members via [www.midwestcarealliance.org](http://www.midwestcarealliance.org).

This recorded series has been available for quite some time, but did not offer the option of receiving continuing educational credit. We are delighted that in addition to offering excellent education in a format to be accessed at your convenience, we are now offering you and your staff members another source to assist you in meeting your CE requirements.

Each seminar (*beginning with 2009*) is available as an independent-study program and includes the documents needed to apply for CE credit within this handout. After listening to the seminar online, simply complete the CE Request Form which includes both an evaluation and post test. Once completed, submit it along with the processing fee of \$10 to request credit. In order to qualify for credit, a minimum score of 70% must be achieved on the post test.

Please be advised that credit for CE purposes may only be awarded to each person once per seminar. It is the responsibility of the student to keep his or her personal records to avoid repeating a module. Periodical audit reviews will also be conducted to determine any violations.

We hope you will find this convenient new format helpful and effective!

### Disclosure information:

The planning committee has declared no conflict of interest. To resolve any conflict, the presenter has agreed to present information fairly and without bias, according to policy.

Disclosure  Nothing to Disclose

Discussion of off-label use of drugs. Co-author of a textbook with royalty received. Text not discussed in seminar. No commercial support was received for this educational activity.

## Online Independent-Study Program • CE Request Form

### Management of End-of-Life Symptoms: Nausea/Vomiting and Constipation

Requesting CE Credit For:  Nursing CE

*\*Upon submittal of the proper forms, this program offers 1 CE credit for nursing valid nationally (not valid for Iowa licenses).*

**Criteria for Successful Completion:** Listening to the audio seminar, submitting completed CE Request Form with processing fee, and achieving a minimum score of 70% on the post test.

**Expiration:** This program expires on April 30, 2013.

#### **Part I - Participant Information** (please print legibly)

Date Completed:	
Name:	
Employer:	
Occupation/Credentials: (RN, LPN, SW/C)	
Complete Mailing Address: (Street, City, State, Zip)	
Phone:	
Email Certificate To:	

#### **Part II - Evaluation**

Were the following objectives met?

- Using a case study, identify at least six potential causes of nausea and vomiting.  YES  NO
- Discuss the rationale for selection of antiemetics based on the causes of nausea and vomiting.  YES  NO
- Discuss the rationale for the selection of bowel medications to treat constipation.  YES  NO

This speaker demonstrated effective teaching on a scale of 5 (excellent) to 1 (poor):

Debra E. Heidrich, MSN, RN, ACHPN, AOCN:  5  4  3  2  1

Comments:	
Questions for Speaker:	

#### **Part III - Post Test**

- Metoclopramide is often cited as a good choice for an antiemetic for nausea associated with opioids because it affects these two mechanisms associated with nausea and vomiting:
  - Chemoreceptive trigger zone and vagal afferents
  - Cerebral cortex and vestibular apparatus
  - Vomiting center and vagal afferents
  - Chemoreceptive trigger zone and pharyngeal afferents
- Studies indicate that nausea is at least as distressing as vomiting.  TRUE  FALSE
- Serotonin-inhibiting antiemetics are considered first-line therapy in palliative care.  TRUE  FALSE
- In the palliative care setting, the following medication for constipation should be avoided:
  - Bisacodyl
  - Docusate sodium plus senna
  - Polyethylene glycol
  - Psyllium
- Constipation is usually not a problem in the palliative care setting unless the patient is on opioids.  TRUE  FALSE
- Length of time (IN MINUTES) to complete this self study: \_\_\_\_\_

Send this original completed form and \$10 processing fee to:

Hospiscript Services, LLC, Attn: Mary Anne McDowell, 1460 Ann St., Montgomery, AL 36107

## Management of End-of-Life Symptoms:

### Nausea/Vomiting and Constipation

Debra E. Heidrich  
MSN, RN, ACHPN, AOCN  
Nursing Consultant, Pain & Palliative Care

## Objectives

- Using a case study, identify at least six potential cases of nausea and vomiting.
- Discuss the rationale for selection of antiemetics based on the causes of nausea and vomiting.
- Discuss the rationale for the selection of bowel medications to treat constipation.

## Case: Mrs. K

- 74-years old
- Stage IV ovarian cancer
- Symptoms:
  - Pain – on morphine SR 60 mg BID + morphine IR 10 mg q 1 hour prn, using 1-3 doses/day
  - Ascites – increasing abdominal girth noted; feels “bloating”
  - Nausea – increasing in severity and frequency
  - Constipation – taking 2 tablets of 8.6 mg sennosides/50 mg ducosate sodium daily; no BM x 3 days

## Definition: Nausea

- Subjective, unpleasant sensation
- May or may not result in vomiting
- Associated with:
  - increased salivation
  - dizziness/light-headedness
  - difficulty swallowing
  - tachycardia
- May be as distressing as vomiting

## Definition: Vomiting

- Forceful abdominal muscle contraction leading to expulsion of stomach contents through the mouth
- Protective mechanism to expel toxic substances
- May occur with or without nausea

## Incidence in Advanced Diseases

- Best data from cancer patients:
  - 60% - 80% during active treatment
  - 40% - 60% with advanced cancer
  - 40% in last weeks of life
- Also seen in other advanced diseases
  - Heart failure
  - COPD
  - Renal failure
  - Liver failure
- Occurs in ~25% receiving opioids

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### Impact on Quality of Life

- Physical well-being
- Psychological well-being
- Social well-being
- Spiritual well-being

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### Quality of Life: Physical Well-Being

- Anorexia
- Fluid & electrolyte imbalance
- Fatigue
- Insomnia
- Functional ability
- Self-care

9

### Quality of Life: Psychological Well-Being

- Distress
- Powerlessness
- Anxiety
- Fear
- Happiness
- Enjoyment

10

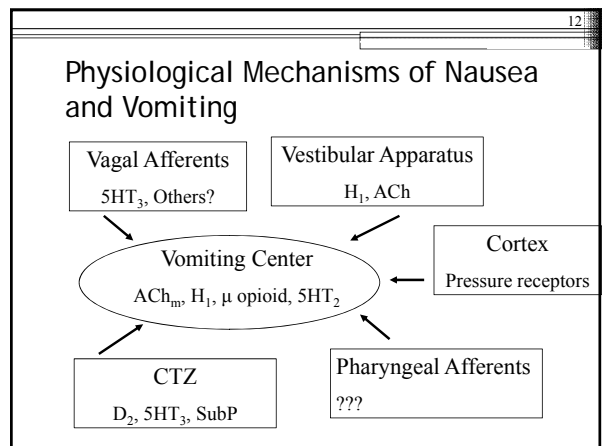
### Quality of Life: Social Well-Being

- Roles
- Relationships
- Affection/sexual function
- Caregiver burden

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### Quality of Life: Spiritual Well-Being

- Meaning of illness
- Suffering



## Causes of Nausea & Vomiting and Physiological Mechanisms

- Cerebral Cortex
  - anxiety/ fear
  - increased ICP
  - hyponatremia
  - volume depletion
  - sights, smells, taste
- Pharyngeal Afferents
  - chronic cough
  - thick secretions
- Vestibular Apparatus
  - motion

## Causes of Nausea & Vomiting and Physiological Mechanisms

- Vagal/ Sympathetic Afferents
  - gastric irritation
  - gastric compression (small stomach syndrome)
  - delayed gastric emptying
  - obstruction
  - constipation
- CTZ
  - medications
  - infection
  - hypercalcemia
  - uremia

## Common Medications Causing N/V

- Opioids
- Antibiotics
- Chemotherapy
- Digoxin
- NSAIDs
- Iron
- Anticonvulsants

## Assessment: Patterns?

- Medications
- Meals
- Activity
- Situation

## Assessment: Associated Symptoms

- Epigastric pain - GERD?
- Headache - increased ICP?
- Pain with swallowing - candidiasis?
- Thirst - hypercalcemia?
- Hiccups - uremia?
- Dysuria - UTI?

## Physical Assessment

- Skin turgor - hydration status
- Mouth - moisture, lesions, odor
- Abdomen - distension, tenderness, bowel sounds

## Diagnostic Studies

- Laboratory data
  - renal/hepatic function
  - calcium
  - sodium
  - WBC w/differential
  - drug levels
- Radiographic studies
  - x-ray, CT, MRI of abdomen

## Subjective Data: Severity

- Visual analog scale or Likert scale
  - assess nausea and vomiting separately!
- Research instruments
  - Functional Living Index Emesis (FLIE)
  - Morrow Assessment of Nausea & Emesis (MANE)
  - Rhodes Index of Nausea and Vomiting Form 2

## Treat the Treatable: Cortex

- Address anxiety/ fears
- Decadron for increased ICP
- Declomycin if SIADH causing hyponatremia
- Replace fluid volume, as appropriate
- Address distressing sights, smells, taste

## Treat the Treatable: Pharyngeal

- Treat cough
- Hydration and/or mucolytics for thick secretions

## Treat the Treatable: Vagal

- Some meds cause less gastric distress if some food in stomach
- Proton pump inhibitor for GERD
- Paracentesis if significant ascites causing small stomach syndrome
- Laxative protocol to prevent/treat constipation

## Treat the Treatable: CTZ

- Antibiotics for infection
- Hydration +/- bisphosphonate (Aredia) for hypercalcemia, when appropriate
- Hydration to assist in elimination of urea in acute renal failure, when appropriate
- Opioid rotation(?)

## Antiemetics

- CTZ
  - Metoclopramide (Reglan)
  - Phenothiazines (Compazine, Torecan)
  - Butyrophenones (Haldol)
  - Serotonin antagonists (Zofran, Kytril)\*
- Cerebral Cortex
  - Antianxiety meds (Ativan)
  - Steroids (Decadron)

\**not first-line therapy in palliative care*

## Antiemetics

- Vagal Stimulation
  - Prokinetic (Reglan)
  - Corticosteroids (Decadron)
  - Serotonin antagonists (Zofran)\*
- Vestibular Stimulation
  - Anticholinergics (Scopolamine, Dramamine)
- Vomiting Center
  - Antihistamines (Benedryl)
  - Anticholinergics (Scopolamine)

## Combination Antiemetics

- BDR
  - diphenhydramine 25 – 50 mg
  - dexamethasone 4 – 10 mg
  - metoclopramide 10 mg
- BAH
  - diphenhydramine 25 – 50 mg
  - lorazepam 0.5 – 1 mg
  - haloperidol 0.5 – 1 mg

## Non-Pharmacological Therapies

- Relaxation
  - Slow, controlled breathing
  - Imagery
  - Distraction
- Oral care
- Cool cloth to forehead, neck, wrists
- Eliminate odors

## Non-Pharmacological Therapies

- Modify meals
  - Small frequent meals
  - Restrict fluids with meals
  - Bland, cold, or room-temperature foods
  - Restrict activity after meals
- Acupuncture
- Acupressure – wrist band
- Ginger

## Constipation

## Constipation: Incidence

- 5% - 20% of general population
- 32% - 87% in persons with advanced illnesses
- 64% of hospice patients not receiving opioids!
- Probably under-diagnosed

## Constipation: Definitions

- Small amounts of hard, dry stool, < 3 times/wk
- Any hard, dry stool
- Straining, difficulty, or discomfort expelling stool
- Anything less frequent than individual's normal

## Constipation: Causes

- Inactivity
- Decreased food & fluid intake
- Medications
- Chemical imbalances
- Pressure/compression of intestines
- Changes in innervation of GI tract
- Psychosocial concerns

## Constipation: Assessment

- General assessment
- History re: report of constipation
- GI assessment
- Rectal exam
- Psychosocial assessment
- Diagnostic tests/labs

## Constipation: Prevent!

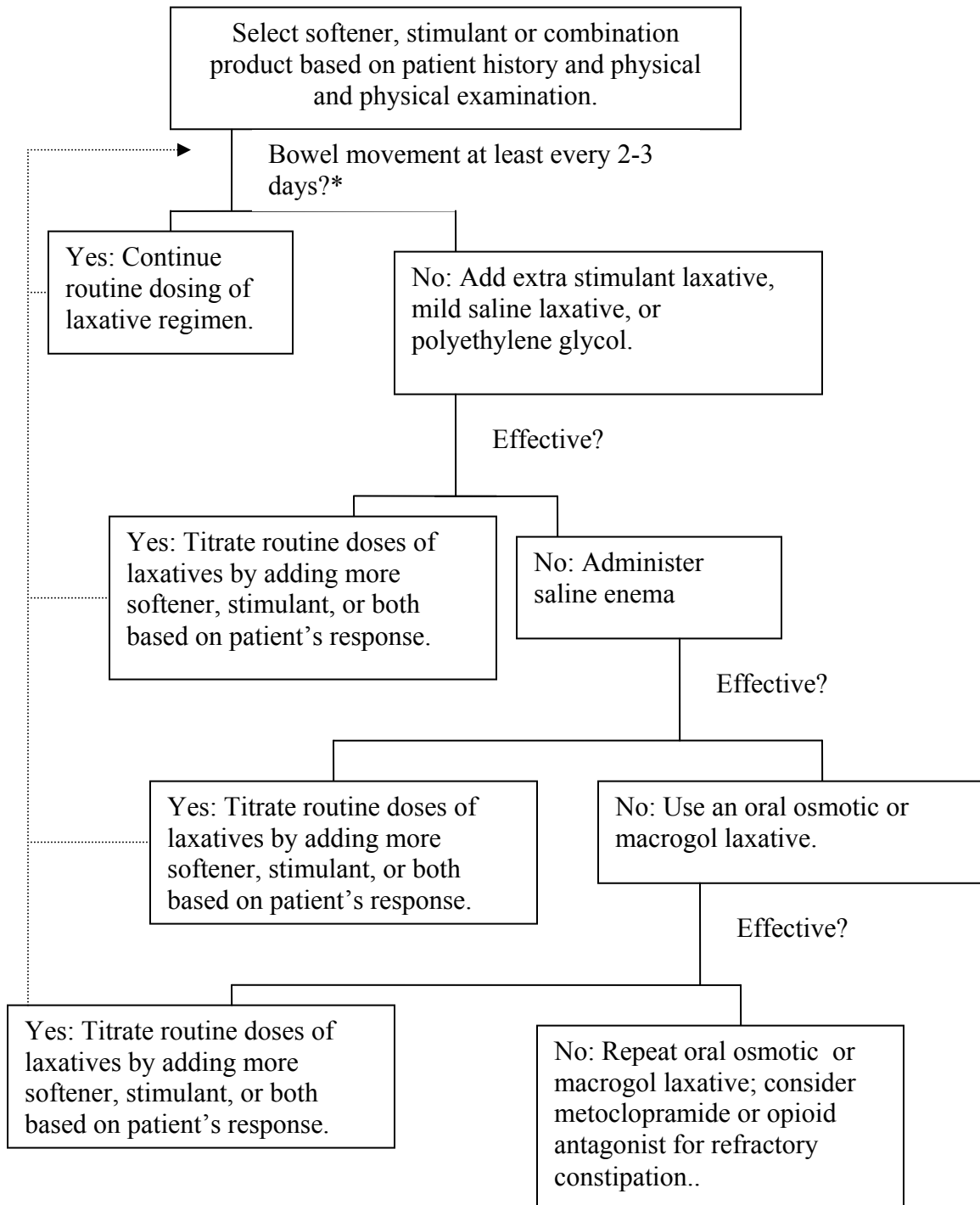
- Regular assessment
- Encourage activity
- Encourage dietary bulk **plus** fluids, as appropriate
- Use toilet or BSC whenever possible
- Ensure privacy for toileting
- Discontinue non-essential medications

## Constipation: Treat

- Institute bowel protocol
  - Combination softener + laxative
- Adjust bowel protocol as necessary
  - See Laxative Therapy Protocol



## Laxative Therapy Protocol



\*Some patients will be most comfortable with daily bowel movements.

# Management of End-of-Life Symptoms:

## Nausea/Vomiting and Constipation

Debra E. Heidrich

MSN, RN, ACHPN, AOCN

Nursing Consultant, Pain & Palliative Care

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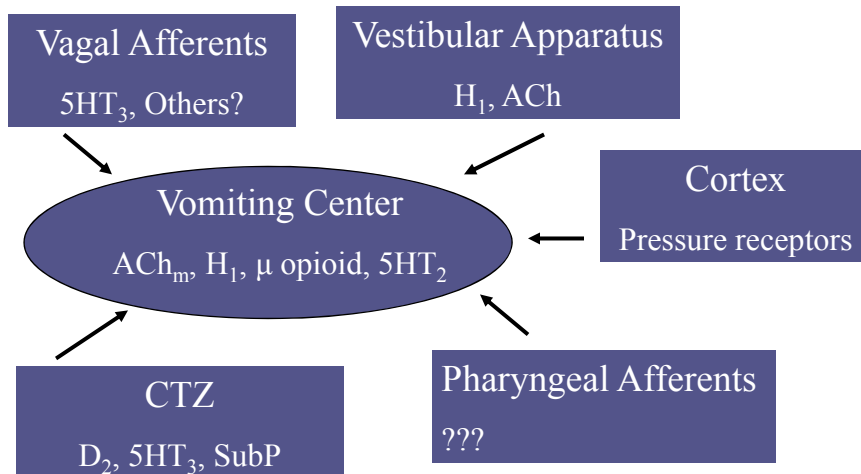
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## Physiological Mechanisms of Nausea and Vomiting



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