Non-Pain Symptom Management at the End Of Life

Grand Rounds

Reynolds GET-IT Program

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Objectives – Palliative Care

- Describe the **goals of palliative care**
- List at least four **non-pain symptoms** that may need to be addressed in palliative care of the older patient
- Identify **interventions** for each of these **non-pain symptoms**

To Maximize Chances of Success

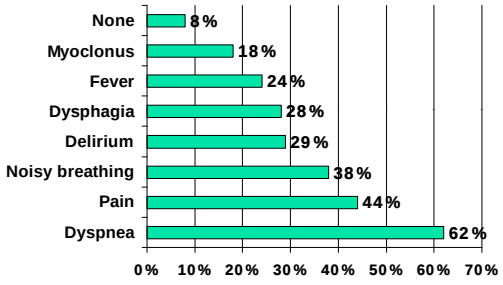
- Maximize patient and family control
- Try to anticipate and prevent symptoms
- If you educate patients/families before symptoms occur, they will be grateful
  - Eg, dry mouth, Cheyne-Stokes breathing
- Elicit help from interdisciplinary team
- Note that risk of failure is increased by:
  - Cognitive impairment
  - Minority status, eg, being African-American
  - Language barrier

Krakauer EL, et al. JAGS 50:1;182 Jan 2002

Symptom Management

- Dyspnea
- Dry mouth
- Nausea, Vomiting
- Constipation
- Anorexia
- Non-healing wounds
- Fever
- Delirium, Restlessness
- Anxiety
- Fatigue
- Depression
- Suffering

Symptoms in Dying LTC patients, 1999 Ottawa Chart Review



Hall P, et al. JAGS 50:3;501 Mar 2002

Dyspnea, Air Hunger, Shortness of Breath

- **Common at all stages of dying**
- **<u>Subjective</u> sensation of uncomfortable breathing**
  - **<u>Not</u> linked to measurements of blood gases, respiratory rate or oxygen saturation**
- **May limit activity and quality of life**
- **Strongly associated with anxiety**
  - **Each may cause or exacerbate the other**
  - **Very frightening to patient and caregivers**

Common Causes of Dyspnea

- Pneumonia
- Bronchospasm
- COPD
- Mucus plugs
- Pulmonary embolism
- Pleural effusion
- Fecal impaction, urinary retention
- Severe anemia
- CHF
- Cardiac ischemia
- Cardiac arrhythmia
- Tumor invasion
- Damage from radiation and chemotherapy

Dyspnea Assessment and Management

- Symptom history and physical exam
- Workup based on benefits and burdens, patient's prognosis, preferences, goals
- Find what works for this person:
  - Positioning, fan (works via V2 branch of 5th CN), open window, relaxation techniques
- Trial of oxygen (4-6 liters/min by nasal cannula) based on symptom relief
- Avoid suctioning in most patients
  - Can be distressing

Opioids are Treatment of Choice for Dyspnea

- **MSO4 is most studied and versatile**
- For opioid naïve patients
  - MSO4 5-15 mg po q 4 h
  - MSO4 SR 15-30 mg po q 12 h
  - Hydromorphone 0.5-2 mg po q 4 h
  - Oxycodone 5-10 mg q 4 h
- For patients on opioids, increase up to 50%
- If dyspnea is intermittent, PRN use may be okay

Other Medications to Consider

- **Benzodiazepines** for anxiety
  - Lorazepam po/sl/IV 0.5-1 mg po q 4 h
- **Bronchodilators** for wheezing
- **Chlorpromazine** (Thorazine)
  - 10-25 mg q 4-6 h
  - May work synergistically with morphine
- Steroids, diuretics, anticoagulation, erythropoietin in appropriate settings

Treatment to Suppress Cough

- **Guaifenesin with Dextromethorphan**
  - (Robitussin DM)
  - Dextromethorphan is related to codeine
- **Codeine, Hydrocodone**
  - Beware of constipation !
- **Chlorpromazine** (Thorazine)
  - 25 mg po/IM q 4-6 h for cough triggered by hiccups

Anticholinergics to Dry Secretions

- **Anticholinergics' other potential benefits**
  - Decrease GI secretions and acidity, relax tracheobronchial smooth muscle
  - Useful in bowel obstruction (if octreotide, ie, Sandostatin, not needed or not available)
- **Glycopyrrolate (Robinul)**
  - 0.1-0.2 mg IM or 1-2 mg po BID-TID
  - Only agent not crossing blood-brain barrier, so treatment of choice in frail patients
- **Scopolamine, Atropine, Hyoscyamine(Levsin)** All cross blood-brain barrier

Oral Care Basics

- **Frequent Physician Exam**
  - Especially to r/o infection, eg, thrush
- **Oral care <u>at least</u> daily (if conscious)**
  - At least 3-4 times daily if unconscious
- **Wonderful way to involve family**
- **Detailed oral care routines :**
  - Univ of Ottawa Institute of Palliative Care www.pallcare.org/educate

Oral Care Tips

- **Effective mouth washes:**
  - Sodium bicarbonate (baking soda) - 5 mls in 500 mls NS and moisten oral mucosa every 15-30 minutes
  - Plain club soda
- **To help clean debris:**
  - Fresh pineapple (ananase is proteolytic)
- **For coated tongue:**
  - Sucking on vitamin C tablets
  - 3% hydrogen peroxide with equal parts water
    - Only if there are no open oral lesions
    - Unpleasant taste, so rinse with plain water

www.pallcare.org

Dry Mouth

- **Use whatever works**
  - Frequent sips of favorite liquids, popsicles, frozen fruit or fruit juices or tonic water, hard candies, artificial saliva
  - Avoid alcohol mouth washes, glycerine swabs
- **If patient unconscious,**
  - Swab the mouth q 1-2 h with water or NS
  - Spray with an atomizer.
- **Vaseline to lips and front teeth**
- **Review anticholinergics**

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Nausea / Vomiting

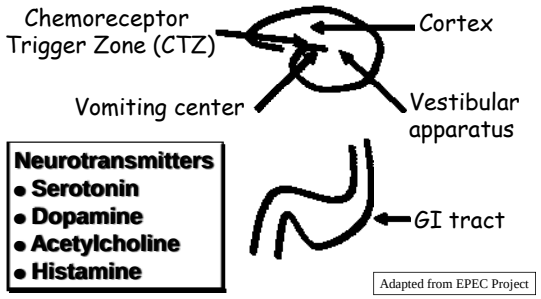
Nausea

- Subjective sensation caused by stimulation of: Chemoreceptor Trigger Zone, Cerebral cortex, Vestibular apparatus, Gastrointestinal lining

Vomiting

- Neuromuscular reflex triggered in medulla (vomiting center)

Pathophysiology of Nausea / Vomiting



Neurotransmitters
- **Serotonin**
- **Dopamine**
- **Acetylcholine**
- **Histamine**

Adapted from EPEC Project

Nausea: Common Mechanisms and Treatment

Sites	Triggers	Treatments
Cortex	Learned behavior	Lorazepam
CTZ	Rising opioid levels Digoxin Metabolic (Na, Ca)	Prochlorperazine Haloperidol
Vestibular apparatus	Opioids (unusual) ENT (various)	Scopolamine Promethazine
GI irritation	NSAIDs, Fe, Antibiotics	Promethazine
Upper GI dysmotility	Opioids Anticholinergics	Metoclopramide
Lower GI obstruction	Constipation Impaction	Bowel measures

Opioids Cause Nausea

- **CTZ (via rising opioid levels)**
  - The most common mechanism: 28% of patients
  - Transient (3-7 days) if dosing is steady.
  - Long-acting forms facilitate steady dosing.
- **Upper GI dysmotility (gastroparesis)**
  - Less common
  - **Tolerance does not develop**
- **Vestibular apparatus**
  - Unusual; note spinning sensation
- **Constipation, impaction**

Oxford Textbook of Palliative Medicine, 1998

Illustrative Nausea Treatments

- **Prochlorperazine (Compazine)**
  - Potent antidopaminergic, weak antihistamine, anticholinergic agent
  - Preferred for opioid related nausea
- **Haloperidol**
  - Very potent anti-dopaminergic agent
- **Promethazine (Phenergan)**
  - Antihistamine with potent anticholinergic properties, very weak antidopaminergic agent
  - Useful for vertigo and gastroenteritis due to infections and inflammation
  - Not useful for opioid-related nausea
- **Scopolamine**
  - A very potent, pure anticholinergic agent.

Adapted from Fast Facts #5, EPERC

Non-Pharmacological Interventions for Nausea

- Cool damp cloth to forehead, neck, wrists
- Bland, cool or room-temperature foods
- Decrease noxious stimuli, e.g., odors, noise
- Limit fluids with food
- Fresh air, fan
- Relaxation techniques
- Acupuncture/pressure or TENS to P6
  - Midline wrist, 3 cm from palmar crease
- Oral care after each emesis

Constipation

- **Common cause of many problems**
  - Check rectum (+/- X Ray) for agitation, delirium, vomiting, pain, anorexia, urinary retention, new onset incontinence
- Oozing diarrhea may mean impaction

Prevention of Constipation

- Scheduled toileting, sitting up if possible
- Maintain evacuation q 2-3 days
  - Clear GI secretions, desquamation, bacteria
- System for documentation, assessment, early intervention
- Physician obligation:

The hand that writes the opioid order should write the bowel regimen.

Dame Cicely Saunders

Constipation Management

- **Fiber (psyllium)** may help
  - Will harm in setting of dehydration or poor motility
- **Fluid**: increase H2O intake or keep fluid in gut with sorbitol
  - For some sorbitol is too sweet and/or roils stomach
- **Motility** (Mg salts, senna, bisacodyl, cascara)
  - Use senna after impaction/obstipation is cleared
  - Worse with opioids, anticholinergics, tricyclics, scopolomine, oxybutinin, promethazine, diphenhydramine, lithium, verapamil, bismuth, iron, aluminum, calcium
- **Lubrication** (DSS tabs, glycerin suppositories)

Adapted from
Fast Facts #15, EPERC

Anorexia and Cachexia

- Consider full differential diagnosis
  - Including pain, depression, medications, oral problems, other GI causes
- Workup, Rx based on benefits and burdens, patient's prognosis, preferences, goals
- Weight loss may be unavoidable
- Most dying patients lose their appetite
- Anorexia and resulting ketosis can lead to sense of well-being and diminish discomfort

Meanings of Food and Drink

- Educate family in advance
- Explore meanings with family, eg,
  - " I don't want her to starve to death. "
- Address cultural, religious concerns
  - " Is there anything I need to know about how you handle death in your culture ? "
- Encourage other ways to show love
- May require daily family education

Non-Healing Chronic Wounds

- Underlying etiology does not respond to treatment, and/or
- The demands of treatment are beyond the patient's endurance or stamina

"This inability to achieve complete wound closure or, in some cases, prevent the occurrence of skin breakdown is contrary to most patients' and families' expectations."

- Hence need for communication & documentation

Alvarez OM, et al. Wounds, 14:8 supplement, Oct 2002
www.woundsresearch.com

Assessment of Chronic Wounds

Healing likelihood - No perfect formula

- Etiology
  - Pressure, venous, arterial, diabetic/neuropathic
- Previous treatments
- Compliance
- Overall health status
- Comorbidities
- Nutritional status
- Osteomyelitis

Alvarez OM, et al. Wounds, 14:8 supplement, Oct 2002

Bedside Indicators of Ischemia

- Dependent rubor
- Ankle-brachial index (ABI) < 0.8
  - Requires BP cuff and hand-held Doppler
  - Not reliable in calcified diabetic arteries
- Toe-brachial index (TBI)
  - Requires specialized equipment
- Workup, Rx based on benefits and burdens, patient's prognosis, preferences, goals

Alvarez OM, et al. Wounds, 14:8 supplement, Oct 2002

Palliative Care Goals for Chronic Wounds

- **Complement curative goals**
  - Not either/or
- **Focus on quality-of-life issues**
  - Stabilize the wound
  - Reduce pain, eg, from dressing changes
  - Reduce bacterial burden
  - Reduce exudates
  - Eliminate odor

Alvarez OM, et al. Wounds, 14:8 supplement, Oct 2002

EMLA = Eutectic Mixture of Local Anesthetics

- Primary use has been in pediatrics
- Reduces pain of debridement
  - Apply thickly 30-60 minutes
  - Cover with film (plastic wrap)
- May need supplementary intralesional Xylocaine +/- adrenaline

Briggs M, Nelson EA
Topical agents or dressings for pain in venous leg ulcers
The Cochrane Library, Issue 4, 2002

Odor Control

- **Odor Elimination**
  - Debridement (mechanical or enzymatic)
  - Antibiotics (topical or oral)
    - Especially metronidazole gel for anaerobes
  - Papain-urea-chlorophillin copper sodium
    - Panafil
- **Odor Minimizers**
  - Charcoal and/or baking soda based topicals
  - Kitty litter placed under the bed

Alvarez OM, et al. Wounds, 14:8 supplement, Oct 2002

Fever Near the End of Life

- Discuss possible infections ahead of time as part of advance care planning
- Onset may trigger a time of decision
  - Consider benefits and burdens of workup and treatment in light of:
    - **Current stage of illness; prognosis**
    - **Pt's preferences and goals of care**
- Fever itself usually responds to acetaminophen
- Need for communication & documentation

Agitation and Anxiety

- Keep an open mind during assessment
  - Ask, "What's going on here?"
    - Try to make sense of the behavior rather than leaping to control measures (sedatives, restraints)
    - Talk (**listen**) to patient and family
- May have physical and psychological causes
  - E.g., urinary retention, anxiety, AND delirium
  - Often a sign of pain in cognitively impaired
- Environment may be a cause
- Evaluation of symptoms will yield best clues

Agitation and Anxiety - Management

- Likely to require multifactorial interventions
- Environmental modification(s)
- Psychological support
- Medications
  - Neuroleptics (for delirium)
  - Antidepressants
  - Benzodiazepines (for anxiety, not for delirium)
  - Morphine (for dyspnea, pain)

Delirium

- Disturbance of consciousness... with reduced ability to focus, sustain, or shift attention
- ... Not accounted for by a preexisting, established, or evolving dementia.
- Develops over a short period of time... and tends to fluctuate during the day.
- There is evidence... that the disturbance is caused by the direct physiological consequences of a general medical condition.

DSM-IV, 1994

Delirium Management

- Workup and treatment based on benefits and burdens, patient's prognosis, preferences, goals
- Delirium may not clear
  - Observed in > 50% of persons with advanced cancer, AIDS
- But try to identify contributing factors
  - Physical exam and symptom review
  - Medications are most common reversible cause
- Stabilize environment, recruit family
- "Treat" as little as possible

Terminal Delirium

- May be first sign of "difficult road to death"
- Often presents as confusion, restlessness, moaning/groaning and agitation, with or without day-night reversal
- Identify whether pain is an issue
- Trial of opioids may be benefical
- May need to suppress symptoms of delirium with benzodiazepines or neuroleptic

Fatigue

- Overwhelming sense of tiredness, exhaustion
- May be prominent complaint in cognitively intact
  - Can rate it (0-10 scale or mild, moderate, severe)
  - If cognitively impaired, will lead to decreased ADLs +/- increased sleep
- May be associated with depression
- Clarify impact on functional status and mood
- Explore the meaning of the symptom to patient, family

Fatigue Management

- Consider OT/PT with goal of improving quality of life vs function
  - Gait training, positioning & assistive devices, energy conservation
- Consider treating contributory factors
  - Anemia, electrolyte imbalance
  - Consider antidepressants including methylphenidate
- Give permission to rest
- Anticipate increased fatigue as time passes

Depression at End of Life

- The usual symptoms and signs of depression:
  - May be confused with or masked by symptoms and signs of disease
  - May be masked by cognitive impairment
- Keep high index of suspicion
- Beware "Of course she's depressed"
- Explore the meaning of patient's feelings
  - Especially worthlessness, hopelessness
- Distinguish preparatory grief from depression

Depression Management

- Attend to whatever is distressing patient
  - Pain, other symptoms, social issues
- Attend to cultural factors
- Provide social, emotional, spiritual support
- Enhance control
- Encourage activities
- Consider psychology referral
- Consider antidepressants

Sexual Needs

- Sexual and intimacy needs continue beyond diagnosis of illness
- Patient, family, and staff attitudes may hinder intimacy
- Often patients and families need reminders and permission that intimacy is OK
  - Lying together may be deeply meaningful
- Staff should attend to privacy and dignity

Spiritual and Existential Suffering

- Spiritual pain is common
- Cultural more than religious differences affect how we experience suffering
- **Clinicians can play a powerful role in eliciting, acknowledging spiritual concerns**
  - Should not feel compelled to address them oneself
- Organizational interventions
  - Pastoral counseling, volunteers, diverse scriptures and sacred objects, music

Suffering: Recognition Most Important Step

Suffering is individual

"Making a diagnosis of suffering means first of all maintaining a high index of suspicion in the presence of serious disease and obviously distressing symptoms."

"As a start, it means asking whether the patient is suffering and why."

Eric Cassell. *Ann Intern Med.* 1999; 131: 531-534

Summary

- Maximize patient and family control
- Anticipate and prevent symptoms
- Educate patients/families before symptoms occur
- Elicit help from interdisciplinary team