

# FAST FACTS AND CONCEPTS

## Complete Catalog

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*Fast Facts* are designed as brief quanta of information concerning selected topics in end-of-life care. Topics are chosen and written by faculty members from the National Residency End-of-Life Curriculum Project, reviewed internally for content and appropriateness, and sent via e-mail to over 400 physician faculty throughout the United States. Once disseminated, faculty use *Fast Facts* as resources in their teaching (discussion for rounds, morning report, teaching conferences), re-distribute via their own internal e-mail networks or stuff in resident mailboxes, etc. Individual *Fast Facts* are also available for downloading at [www.eperc.mcw.edu](http://www.eperc.mcw.edu). Faculty who receive *Fast Facts* are free to distribute them for educational purposes (see Copyright Notice below).

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# FAST FACTS AND CONCEPTS

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## FAST FACTS AND CONCEPTS #1

### “TREATING TERMINAL DELIRIUM”

David E. Weissman, MD

Some degree of cognitive function loss occurs in most patients in the week or two before death. The typical scenario presented to housestaff is a late-night call from a ward nurse saying, “*Mr. Jones is confused, what should we do*”. More often than not, no direct patient assessment is done by the houseofficer, but a reflexive dose of lorazepam (Ativan) is administered, often causing worsening confusion. Why Ativan?, I’m not sure, but it’s clear that housestaff and general medicine ward nurses feel much more comfortable using minor tranquilizers than major tranquilizers, perhaps from their experience in treating alcoholic withdrawal.

#### Key teaching points about terminal delirium:

1. The term “confusion” is not an accurate descriptive term—it can mean anything from delirium, dementia, psychosis, obtunded, etc. Patients need a focused assessment, including a brief mini-mental examination
2. Delirium can be either a *hyperactive/agitated delirium* or a *hypoactive delirium*; the hallmark of delirium is an acute change in cognitive function, sleep disturbance, mumbling speech, memory and perceptual disturbances.
3. The most common identifiable cause of delirium in the hospital is drugs: anti-cholinergic and sedative-hypnotics—including benzodiazepines such as Ativan.
4. The drug of choice in terminal care is a major tranquilizer—e.g. haloperidol, given in a dose escalation process similar to treating pain. Haldol 1-2 mg po or IV q2 prn will suffice for most patients. Minor tranquilizers (e.g. Ativan) can be used, but paradoxical worsening may occur.

#### References:

- Brietbart W, Marotta R, Platt M, et al. A double blind trial of Haloperidol, Chlorpromazine and Lorazepam in the treatment of delirium. *Am J Psych* 1996; 153: 231-237.
- *Improving end-of-life care, a resource guide for physician education*. Weissman DE and Ambuel B. 2<sup>nd</sup> Ed. pg. 48-49, 1999

## FAST FACTS AND CONCEPTS #2

### “CONVERTING TO/FROM TRANSDERMAL FENTANYL”

David E. Weissman, MD

Quick—what dose of Duragesic® patch (Fentanyl transdermal) is equianalgesic to a 3 mg/hr morphine drip? Conversions to and from Duragesic® are notoriously tricky, requiring knowledge of the published conversion data, general opioid pharmacology and a generous dose of common sense. Here are the steps I recommended:

- **Step 1.** Calculate the 24 hr morphine dose:  $3 \text{ mg} \times 24 = 72 \text{ mg IV morphine/24 hrs}$ ;
- **Step 2** Convert IV to oral morphine: at a ratio of 1 mg IV = 3 mg oral; thus  $72 \text{ mg IV} = 216 \text{ mg po/24 hours}$ ;
- **Step 3** Convert the oral morphine dose to Duragesic®—there are two methods: A) look in the PDR<sup>1</sup>, find the morphine conversion table, its says that 135-224 mg of morphine = 50 mcg patch. Note, this range of morphine is very broad; 50% of patients will be under-dosed when this conversion table is used<sup>1</sup>. B) A second method uses a ratio of MS:fentanyl of 100:1;  $216\text{mg}/100/24\text{hrs} = 90 \text{ mcg/hr}$ , can rounded to 75 mcg or 100 mcg patch<sup>2</sup>. How to choose which dose? Know that the “right” equianalgesic dose is likely to be somewhere *close to or within* the range of 50-100 mcg; 2) Know that for the elderly and anyone with renal impairment, the risk of sedation/respiratory depression with Duragesic® is increased due to its long half-life, thus, choose the lower end of the dosing spectrum; 3) When in doubt, go low and slow, using prn breakthrough doses generously.

**As a rule, all published opioid equianalgesic ratios should be thought of as a general reference guide to help avoid gross under or over dosing. Once chosen, the calculated dose is just a starting point for upward or downward dose titration.**

#### Other teaching points about Duragesic:

- Start at the lowest dose, 25 mcg in an opioid naïve patient. There is no maximum dose.
- Therapeutic blood levels are not reached for 13-24 hours after patch application;
- Some patients need patch change every 48 hours.
- The recommended upward dose titration interval is every 72 hours.<sup>1</sup>
- Place patches on non-irradiated, hairless skin.
- Data exists that Duragesic® has less side effects than sustained release morphine.<sup>3</sup>

#### References:

- Physicians Desk Reference, 1999, pgs1418-1422.
- Donner B, et al. Direct conversion from oral morphine to transdermal fentanyl. Pain 1996; 64:527-534.
- Payne R, et al. QOL and cancer pain: satisfaction and side effects with Transdermal fentanyl versus oral morphine. J Clinical Oncology 1998;16:1588-1593.

## FAST FACTS AND CONCEPTS #3

### “THE SYNDROME OF IMMINENT DEATH”

David E. Weissman, MD

Main Teaching Points:

#### 1. Recognition

**Early Stage:** bed bound; loss of interest and ability to drink/eat; cognitive changes: either hypoactive or hyperactive delirium or increasing sleepiness.

**Mid Stage:** further decline in mental status--obtunded; "death rattle"--pooled oral secretions that are not cleared due to loss of swallowing reflex; fever is common.

**Late Stage:** coma, cool extremities, altered respiratory pattern--either fast or slow, fever is common; death.

**2. Time Course:** The time to traverse the various stages can be less than 24 hours or up to 10-14 days. Once entered, it is difficult to accurately predict the time course, which may cause considerable family distress, as death seems to "linger".

#### 3. Treatment:

- a) Once recognized, discuss with family, confirm treatment goals; Write in Progress note: "patient is dying", not "prognosis is poor"
- b) Discuss with family goal of stopping all treatments that are not contributing to comfort--pluse ox, IV hydration, antibiotics, finger sticks, etc. Hydration and feeding issues will need to be discussed sensitively, often eliciting more concern among the medical team than the family (future FastFact topic).
- c) Use Scopolamine Patch (1or 2) or Atropine to decrease oral secretions-"Death rattle".
- d) Use morphine to control dyspnea or tachypnea (it's very disturbing to families to see their loved one in a coma breathing 40/min (a goal should be to keep respiratory rate in range of 10-15). Note: this is not euthanasia!
- e) Opioids used to treat pain should not be stopped as death approaches --assume that the pain stimulus is still present; families always want reassurance that their loved one is not suffering.
- f) provide excellent mouth and skin care.

#### Reference

Oxford Textbook of Palliative Medicine, 2nd ed. 1999, pages 982-989.

## FAST FACTS AND CONCEPTS #4

### “DEATH PRONOUNCEMENT IN THE HOSPITAL”

David E. Weissman, MD and Charlotte A. Heidenreich, MD

Residents have traditionally had little formal training in examining patients to determine death, notifying families, and in recording proper documentation.

#### **The Phone Call: “Please come and pronounce this patient”**

- Find out the circumstances of the death – expected or sudden?; is the family present? What is the patient’s age?

#### Preparation Before You Enter the Room

- Get the details on the circumstances of death from the RN.
- Find out if the attending physician has been called. In general, see the patient before you call the attending, unless there are unusual family dynamics or details surrounding the death that you should discuss prior to seeing the patient or family members in the room.
- Has the family requested an autopsy? Do you see a value in requesting an autopsy?
- Determine if the patient/family has already been contacted by the Organ Donor Network.
- Review the chart for important medical (length of admission, cause of death) and family issues (who is family?, faith?, is there a clergy contact?) .

#### **In the Room**

- You may want to ask the nurse or chaplain to accompany you; he/she can give you support and introduce you to the family.
- Introduce yourself (including your relationship to the patient) to the family if they are present. Ask each person their name and relationship to the patient.
- Empathetic statements are appropriate: “I’m sorry for your loss...”; or “This must be very difficult for you...”.
- Explain what you are there to do. Tell the family they are welcome to stay if they wish, while you examine their loved one.
- Ask if the family has any questions; if you cannot answer, contact someone who can.

#### The Pronouncement

- Identify the patient by the hospital ID tag; Note the general appearance of the body.
- Ascertain that the patient does not rouse to verbal or tactile stimuli. Avoid overtly painful stimuli especially if family members are present. Nipple or testicle twisting, or deep sternal pressure are inappropriate.
- Listen for the absence of heart sounds; feel for the absence of carotid pulse.
- Look and listen for the absence of spontaneous respirations.
- Record the position of the pupils and the absence of pupillary light reflex.
- Record the time at which your assessment was completed.

#### **Documentation in the Medical Record**

- Called to pronounce (name); Chart findings of physical examination.
- Note date and time of death; Note if family and attending physician were notified.
- Document if family declines or accepts autopsy; Document if the coroner was notified.

#### **References:**

- Marshall SA, Ruedy J. On Call: Principles and protocols. Philadelphia, Saunders,
- Marchand LR, Kushner KP. Death Pronouncement: survival tips for residents. American Family Physician, July 1998. [www.aafp.org/afp/980700ap/rsvoice.html](http://www.aafp.org/afp/980700ap/rsvoice.html)
- Magrane BP, Gilliland MGF, King D. Certification of Death by Family Physicians. American Family Physician, October 1997, 1433-8.

## FAST FACTS AND CONCEPTS #5

### “TREATMENT OF NAUSEA AND VOMITING”

James Hallenbeck, MD

What's the difference between Compazine (prochlorperazine) and Phenergan (promethazine)? By understanding the pathophysiology of nausea and targeting antiemetics to specific receptors, therapy can be optimized and side-effects minimized. An easy way to remember the causes of vomiting is to use the **VOMIT** acronym. In the table below receptors involved in different types of nausea are highlighted using this acronym. Blockade of these receptors allows rational, focused therapy.

Type of nausea	Receptors causing nausea	Drug class useful	Examples of DOC
<i>Vestibular</i>	Cholinergic, Histaminic	Anticholinergic, Antihistaminic	Scopolamine patch Promethazine
<i>Obstruction of Bowel caused by constipation *</i>	Cholinergic, Histaminic, ? 5HT3	Stimulate myenteric plexus	Senna products
<i>DysMotility of upper gut **</i>	Cholinergic, Histaminic, ? 5HT3	Prokinetics stimulate 5HT4 receptors	Metoclopramide Cisapride
<i>Infection, Inflammation</i>	Cholinergic, Histaminic, ? 5HT3	Anticholinergic, Antihistaminic	Promethazine
<i>Toxins stimulating the CTZ in the brain such as Opioids***</i>	Dopamine 2, 5HT3	Antidopaminergic, 5HT3 Antagonist	Prochlorperazine, Haloperidol, Ondansetron

\* The most common cause of bowel obstruction is constipation. This is especially problematic in patients on opioids. Treatment of nausea related to mechanical bowel obstruction is controversial and stimulants, such as senna may be inappropriate, especially if cramping is present.

\*\* Dysmotility of the upper gut is a common, under-appreciated cause of nausea, especially in patients on opioids or anticholinergic drugs, both of which slow gut motility. Patients typically complain of early satiety in contrast to other patients, who have fasting nausea. Metoclopramide is contraindicated in Parkinson's Disease and renal failure. Cisapride has numerous drug-drug interactions, so beware! Both prokinetic work poorly if anticholinergic drugs are co-administered. So don't give promethazine for this form of nausea!

\*\*\* Rising serum levels of opioids stimulate the chemotactic trigger zone (CTZ), causing nausea. Minimizing fluctuating opioid levels, by using long-acting agents where possible, can limit this form of nausea. Prochlorperazine is the first-line suppository, haloperidol may be used orally or parenterally. Ondansetron, a 5HT3 antagonist is a second-line agent that can be used where antidopaminergic drugs are contraindicated, such as in Parkinson's Disease.

Additional pearl: There is no good evidence supporting the use of lorazepam as a sole agent for nausea. Sedated patients may be more prone to aspiration. Listed below is a comparison of some commonly used antiemetics:

**Scopolamine:** a very potent, pure anticholinergic agent.

**Promethazine** (Phenergan): antihistamine with potent anticholinergic properties, very weak antidopaminergic agent. (So bad for opioid related nausea.)

**Prochlorperazine** (Compazine): Potent antidopaminergic, weak antihistamine, anticholinergic agent.

**Haloperidol:** Very potent anti-dopaminergic agent.

As you can see, Phenergan and Compazine are very different drugs. Phenergan is useful for vertigo and gastroenteritis due to infections and inflammation. Compazine is preferred for opioid related nausea.

#### References:

- Mannix KA. Palliation of nausea and vomiting. *Oxford Text Palliative Med*. Second ed. 1998. Oxford. U. Press, NY.489-499.
- Storey P, Knight CF. UNIPAC Four: Management of Selected Nonpain Symptoms in the Terminally Ill. 1996. American Academy of Hospice and Palliative Medicine. Can order via [www.aahpm.org](http://www.aahpm.org).

## FAST FACTS AND CONCEPTS #6

### “DELIVERING BAD NEWS”

Bruce Ambuel, PhD

**Question:** *What steps do you take to prepare to give bad news before talking with the patient?*

**Case Scenario:** You are caring for a previously healthy 52-y/o man with a new problem of abdominal pain. After conservative treatments fail, a diagnostic abdominal CT scan is done showing a focal mass with ulceration in the body of the stomach and numerous (more than 10) densities in the liver compatible with liver metastases. The radiologist feels that the findings are absolutely typical of metastatic stomach cancer. How do you prepare to discuss these test results with the patient?

#### **Main Teaching Points:**

- Create an appropriate physical setting: A quiet, comfortable room, turn off beeper, check personal appearance, have participants, including yourself, sitting down.
- Determine who should be present? Ask the patient whom they want to participate--clarify relationships to patient. Decide if you want others present (e.g. nurse, consultant, chaplain, social worker) and obtain patient/family permission.
- Think through your goals for the meeting as well as possible goals of the patient.
- Make sure you know basic information about the patient's disease, prognosis, treatment options.
- Special circumstances: Patient not competent (developmentally delayed, dementia, etc.) Make sure legal decision-maker is present.
- Special circumstances: Patient doesn't speak English. Obtain a skilled medical interpreter if the patient or family do not speak English. Use ATT translation service or other phone service is necessary.

**Precepting self-reflection: Residents** will invariably have strong emotions when they have to give bad news. This emotional response can be heightened by various factors—a young patient, an unexpected diagnosis, a patient with whom the physician has a long-standing relationship, etc. As a preceptor, you will want to support the resident. Key teaching points:

1. Residents may not spontaneously discuss their own emotional reaction with a preceptor, therefore you will want to introduce this topic. “This is a really hard case, how are you doing?”;
2. Physicians often have strong emotional reactions when a patient encounters bad news. Normalize the experience for the resident; “Its normal to have strong feelings”.
3. Three methods for coping with these feelings: Identify your feelings (anger, sadness, fear, guilt); Talk with a colleague; Keep a personal journal.
4. Role play the discussion with the resident before you go into the room; ask them to reflect on how it “feels”, what is hard, what is easy. Encourage continued self-reflection.

#### **Reference**

- Ambuel, B. Giving Bad and Sad News. In DE Weissman & B Ambuel, Improving End-of-Life Care: A resource guide for physician education. The Medical College of Wisconsin, Milwaukee, 1999.

## FAST FACTS AND CONCEPTS #7

### “DEPRESSION IN ADVANCED CANCER”

ERIC WARM, MD

#### Teaching Points

The incidence of depression in cancer patients ranges from 10 to 25 percent, and increases with higher levels of disability, advanced illness, and pain (as high as 77%). The diagnosis of a major depressive syndrome in a terminally ill patient often relies more on the psychological or cognitive symptoms of major depression (worthlessness, hopelessness, excessive guilt, and suicidal ideation) than the usual neurovegetative or somatic signs (terminal illness itself can produce these). Endicott has proposed substitution criteria:

<b>Physical/somatic symptom</b>	<b>Psychological symptom substitute</b>
1. Change in appetite/weight	1. Tearfulness, depressed appearance
2. Sleep disturbance	2. Social withdrawal, decreased talkativeness
3. Fatigue, loss of energy	3. Brooding, self pity, pessimism
4. Diminished ability to think or concentrate	4. Lack of reactivity

Feelings of hopelessness and worthlessness must always be explored. While there may not be hope for a cure, many patients can maintain hope for better symptom control, or derive hope by continuing to find meaning in their day to day lives. Hopelessness that is pervasive, and accompanied by a sense of despair or despondency, is more likely to represent a symptom of a depressive disorder. Suicidal ideation, even in mild and passive forms, is very likely to be associated with significant degrees of depression in terminally ill cancer patients.

Psychotherapeutic interventions, either in the form of individual or group counseling has been shown reduce psychological stress and depressive symptoms in cancer patients. Antidepressant medications, however, are the mainstay of treatment in cancer patients with a depressive episode.

#### **References**

- Breitbart W et.al, in Oxford Textbook of Palliative Medicine, 2nd ed., Doyle D., ed. 1999, pp 937-944.
- Endicott J. Measurement of depression patients with cancer. *Cancer*, 1983;53: 2243-8.

## FAST FACTS AND CONCEPTS #8

### “MORPHINE AND HASTENED DEATH”

Charles F. von Gunten, MD

**Question:** What is the distinction between the use of morphine at the end of life to control symptoms and euthanasia/assisted suicide?

**Case Scenario:** An 83 year old former industrial worker has been hospitalized because of severe pain. He has pancreatic cancer with metastases to liver and lung. He has severe abdominal pain.

#### Main Teaching Points:

1. Many physicians inaccurately believe that morphine has an unusually or unacceptably high risk of an adverse event that may cause death, particularly when the patient is frail or close to the end of his or her life. In fact, morphine-related toxicity will be evident in sequential development of drowsiness, confusion and loss of consciousness before his respiratory drive is significantly compromised.
2. Many physicians inappropriately call this risk of a potentially adverse event, a *double effect*, when it is in fact a secondary, *unintended consequence*. The principle of double effect refers to the ethical construct where a physician uses a treatment, or gives medication, for an ethical intended effect where the potential outcome is good (eg, relief of a symptom), knowing that *there will certainly be* an undesired secondary effect (such as death). An example might be the separation of Siamese twins knowing that one twin will die so that the other will live. Although this principle of “double effect” is commonly cited with morphine, in fact, it does not apply, as the secondary adverse consequences are unlikely.
3. When offering a therapy, it is the *intent* in offering a treatment that dictates whether it is ethical medical practice:
  - a. if the *intent* in offering a treatment is *desirable* or *helpful to the patient* and the *potential outcome good* (such as relief of pain), but a potentially adverse secondary effect is undesired and the potential outcome bad (such as death), then *the treatment is considered ethical*
  - b. If the *intent* is *not desirable* or *will harm the patient* and the *potential outcome bad*, the *treatment is considered unethical*
4. All medical treatments have both intended effects and the risk of unintended, potentially adverse, secondary consequences, including death. Some examples are TPN, chemotherapy, surgery, amiodarone, etc.
5. Assisted suicide and Euthanasia are not examples of “double effect.” The intent in offering the treatment is to end the patient’s life.
6. If the intent in morphine in the scenario is to relieve pain and not to cause death, and accepted dosing guidelines are followed:
  - a. the treatment is considered ethical
  - b. the risk of a potentially dangerous adverse secondary effects is minimal
  - c. the risk of respiratory depression is vastly over-estimated.

#### Reference:

Emanuel LL, von Gunten CF, Ferris FD. (1999) The Education for Physicians on End-of-Life Care (EPEC) curriculum. American Medical Association, Chicago.

## FAST FACTS AND CONCEPTS #9

### HOSPICE AND PALLIATIVE MEDICINE CERTIFICATION EXAM

David Weissman, MD.

Board Certification has been available in Hospice and Palliative Medicine since 1996, administered by the American Board of Hospice and Palliative Medicine (ABHPM) and its 9 member Board of Trustees. ABHPM seeks to increase competencies in skilled end-of-life medical care by promoting certification in hospice and palliative medicine. Board certification reinforces good care and strengthens hospice and palliative medicine as a highly valued specialty. Over 600 physicians have been certified.

#### **Applicant Criteria:**

1. a current license in the U.S. (or equivalent in other countries);
2. certification in a specialty recognized by the American Board of Medical Specialties or Osteopathic Medicine (or equivalent in other countries);
3. at least 2 years in practice following residency;
4. at least 2 years work with an interdisciplinary team;
5. participation in the active care of at least 50 terminally ill patients in the preceding 3 years;
6. 3 years of experience in hospice and palliative medicine beyond residency is recommended;

#### **Future exam dates:**

October 14, 2000 (application deadline August 31, 2000)

April 21, 2001 (application deadline February 28, 2001)

#### **Examination Sites:**

Choose from 19 testing centers: Atlanta, Boston, Chicago, Columbus, Dallas, Denver, Detroit, Houston, Los Angeles, Miami, Minneapolis, New York City, Philadelphia, Phoenix, San Francisco, Seattle, Tampa, and Washington DC. Other testing sites available by special arrangement.

A handbook for candidates and exam application may be requested directly from: Professional Testing Corporation 1350 Broadway, 17th floor New York, NY 10018 212/356-0660 email: [ptcny@ptcny.com](mailto:ptcny@ptcny.com) ([www.ptcny.com](http://www.ptcny.com))

## FAST FACTS AND CONCEPTS #10

### TUBE FEED OR NOT TUBE FEED?

James Hallenbeck, MD.

Tube feeding is frequently used in chronically ill and dying patients. The evidence base for much of this use is weak, at best. In the bullets below are summarized some of what is known (and not known) about tube feeding for specific indications.

#### Tube feeding as a means to prevent aspiration pneumonia...

- No study has demonstrated a reduction in the incidence of pneumonia through tube feeding.
- No randomized control studies have been published. Three retrospective cohort studies comparing patients with and without tube feeding demonstrated no advantage to tube feeding for this purpose.
- Swallowing studies, such as videofluoroscopy, lack both sensitivity and specificity in predicting who will develop aspiration pneumonia. Croghan's (1994) study of 22 patients undergoing videofluoroscopy demonstrated a sensitivity of 65% and specificity of 67% in predicting who would develop aspiration pneumonia within one year. In this study, no reduction in the incidence of pneumonia was demonstrated in those tube fed.
- Swallowing studies may be helpful in providing guidance regarding swallowing techniques for populations amenable to instruction.
- Numerous observational studies have been published, demonstrating a high incidence of aspiration pneumonia in those who have been tube fed.

#### Tube feeding to prolong life via caloric support...

- Data is strongest for patients with reversible illness in a catabolic state (such as acute sepsis).
- Data is weakest in advanced cancer. No improvement in survival has been found (few exceptions noted below).
- Non-randomized, retrospective studies have found no survival advantage in patients with dementia.
- Tube feeding may be life-prolonging in select circumstances:
  - A) Patients with proximal GI obstruction and a high functional status
  - B) Patients receiving chemotherapy/XRT involving the proximal GI tract.
  - C) Certain patients with AIDS and wasting syndromes.

#### Tube feeding to enhance quality of life/reduce suffering...

- Where true hunger and thirst exist, quality of life may be enhanced (such as in very proximal GI obstruction).
- Most actively dying patients do NOT experience hunger or thirst (although dry mouth is a common problem).
- Dry mouth is NOT improved by tube feeding (or IV hydration).
- A recent literature review using *palliative care* and *enteral nutrition* as search terms found no studies demonstrating improved quality of life through tube feeding. (Limited to a few observational studies.)
- Tube feeding may adversely affect quality of life through increased need for physical restraints, infections, pain, indignity cost and the denial of the pleasure of eating.

#### Summary

Tube feeding should always be considered relative to patient goals. Physicians should be prepared to discuss tube feeding as an option bearing in mind what evidence (or lack thereof) exists that tube feeding will help reach such goals.

#### References:

- Ahronheim JC. Nutrition and hydration in the terminal patient. *Clinics in Geriatrics*. 1996; 12(2): 379-391.
- Croghan JE, Burke EM, Caplan S, Denman S. Pilot study of 12-month outcomes of nursing home patients with aspiration on videofluoroscopy. *Dysphagia*. 1994; 9(3):141-146.
- Finucane TE, Christmas C, Travis K. Tube feeding in patients with advanced dementia. *JAMA*. 1999; 282:1365-1369., Finucane TE, Bynum JP. Use of tube feeding to prevent aspiration pneumonia. *Lancet*. 1996; 348:1421-24.

## FAST FACTS AND CONCEPTS #11

### DELIVERING BAD NEWS #2—TALKING TO PATIENTS AND PRECEPTING TRAINEES

Bruce Ambuel, PhD

#### See Fast Facts #6 : Delivering Bad News #1.

**Case Scenario:** You are caring for a previously healthy 52 y/o man with one-month of abdominal pain and weight loss. On exam he had a 2-cm hard left supraclavicular lymph node. A CAT scan showed a focal mass with ulceration in the body of the stomach and numerous densities in the liver compatible with liver metastases. The radiologist feels that the findings are consistent with metastatic stomach cancer. How do you discuss these test results with the patient?

#### Main Teaching Points:

- I. Determine what the patient & family knows; make no assumptions. Examples: "What is your understanding of your present condition?" "What have the doctors told you?"
- II. Before presenting bad news, consider providing a brief overview of the patient's course so that every one has a common source of information.
- III. Speak slowly, deliberately and clearly. Provide information in small chunks. Check reception frequently
- IV. Give fair warning --"I am afraid I have some bad news" then pause for a moment.
- V. Present bad news in a succinct and direct manner. Be prepared to repeat information and present additional information in response to patient and family needs.
- VI. Sit quietly. Allow the news to sink in. Wait for the patient to respond.
- VII. Listen carefully and acknowledge patient's and family's emotions, for example by reflecting both the meaning and emotion of their response.
- VIII. Normalize and validate emotional responses: feeling numb, angry, sad, and fearful.
- IX. Give an early opportunity for questions, comments
- X. Present information at the patient's or family's pace; do not overwhelm with detail. The discussion is like peeling an onion. Provide an initial overview. Assess understanding. Answer questions. Provide the next level of detail or repeat more general information depending upon the patient's and family's needs.
- XI. Assess thoughts of self-harm
- XII. Agree on a specific follow-up plan ("I will return later today, write down any questions."). Make sure this plan meets the patient's needs. Involve other team members in follow-up.

#### Precepting Points:

Residents often feel strong emotions when they have to give bad news to a patient. This emotional response can be heightened by various factors—a young patient, an unexpected diagnosis, a patient with whom the physician has a long-standing relationship, etc. As a preceptor, you will want to support the resident. Key teaching points:

- Residents may not spontaneously discuss their own emotional reaction with a preceptor, therefore you will want to introduce this topic.
- Physicians often have strong emotional reactions when a patient encounters bad news. This is normal and OK.
- Three methods for coping with these feelings: Identify your feelings (anger, sadness, fear, guilt); Talk with a colleague; Keep a personal journal.

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## FAST FACTS AND CONCEPTS #12

### EIGHT MYTHS ABOUT ADVANCE DIRECTIVES

Eric Warm, MD

Written advance directives are legal in every state; however, laws of each state can vary widely. You can find information at <http://www.choices.org/ad.htm>. There are two types of advance directives:

**Health care power of attorney** (aka: durable power of attorney for health care, health care agent, etc.) - a document in which the patient appoints someone to make decisions about his/her medical care if he/she cannot make those decisions.

**Living will** - a written document in which a patient's wishes regarding the administration of medical treatment are described if the patient becomes unable to communicate at the end of life.

#### Here are 8 common myths regarding advance directives:

**MYTH 1:** There is only one type of power of attorney. False - many patients (and their families) believe that if they have power of attorney for financial matters, they also, by default, have power of attorney for health care. These are typically separate legal documents, but sometimes are combined into one comprehensive document prepared by an attorney.

**MYTH 2:** It is not appropriate to begin advance directive planning on an outpatient basis. False--many studies have shown that patients want their doctors to discuss advance care planning with them before they become ill. Many others have shown a positive response from patients when advance directive discussions are held during outpatient visits.

**MYTH 3:** An advance directive means "don't treat". False - Too often advance directives are triggers for disengagement by the medical staff. Advance directives do not say "don't treat me". They say, "treat me the way I want to be treated".

**MYTH 4:** Once a person names a proxy in an advance directive they lose control of their own care. False - as long as a person retains decision making capacity he/she retains control of their medical destiny.

**MYTH 5:** A lawyer is required to complete an advance directive. False – a lawyer may be helpful, but is not required. Again, check your own state requirements for the number of witnesses or need for a notary public seal.

**MYTH 6:** Doctors and other health care providers are not legally obligated to follow advance directives. False – doctors and other health care providers are obligated to follow advance directives; however, they often do not. The SUPPORT trial concluded only about half of all physicians in the study even knew what their patients wanted at the end of life.

**MYTH 7:** Advance directives are legal tools for old people. False – the stakes may actually be higher for younger people if tragedy strikes (think Nancy Cruzan or Karen Ann Quinlan).

**MYTH 8:** The doctor can be the durable power of attorney for health care. False - no member of the health care team can be the durable power of attorney for health care.

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## FAST FACTS AND CONCEPT #13

### DETERMINING PROGNOSIS IN ADVANCED CANCER

David E. Weissman, MD

"How long do I have, doc?", is among the most common questions asked by cancer patients, especially when informed that there are no further effective anti-neoplastic treatment options. Although prognostication is not an exact science, there is abundant data to help clinicians provide useful information to patients and families, information critical to making realistic end-of-life decisions and referrals for home hospice service.

The single most important predictive factor is **Functional Ability**; a measure of how much a patient can do for themselves, of their activity and energy level. Note: patients with solid tumors typically lose 70-80% of their functional ability in the last 3 months of life. The two scales used to measure functional ability are the Karnofsky Index (100 = normal; 0 = dead) and the ECOG (Eastern Cooperative Oncology Group) scale, (0 = normal; 5 = dead). A median survival of 3 months correlates with a Karnofsky score <50 or ECOG  $\leq$  3. The question to ask patients is: "How much time do you spend in bed or laying down?" If the response is >50% of the time and is progressively increasing, this correlates to a median survival of approximately 3 months. Survival time decreases for added physical symptoms, especially dyspnea, if secondary to the cancer.

Several common cancer syndromes have well-documented short median survival times:

- Malignant hypercalcemia: 8 weeks (except newly diagnosed breast cancer or myeloma)
- Malignant pericardial effusion: 8 weeks
- Carcinomatous meningitis: 8-12 weeks
- Multiple brain metastases: 1-2 months w/o radiation; 3-6 months with radiation

In general, a patient with metastatic solid cancer, acute leukemia or high-grade lymphoma, who will not be receiving systemic chemotherapy (for whatever reason), has a prognosis of less than 6 months\*\* . Notable exceptions to this are patients with breast or prostate cancer with good performance status as these cancers may be indolent. In these patients additional features suggesting short prognosis are needed (declining functional status, dyspnea, weight loss). Other indicators of less than 6 months prognosis include malignant ascites, malignant pleural effusion or malignant bowel obstruction that cannot be surgically bypassed.

\*\*Remember, referral for care under the Medicare Hospice Benefit requires certification that the prognosis is less than 6 months if the disease follows a usual course.

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## FAST FACTS AND CONCEPT #14

### PALLIATIVE CHEMOTHERAPY

David E. Weissman, MD

One often hears the term *palliative chemotherapy*, but what exactly does it mean and how can a non-oncologist decide if it has potential value?

#### Why is chemotherapy used?

From the perspective of the patient, chemotherapy is used with one of two intents: **Hope for cure** or **Hope for life-prolongation**. Oncologists generally use the term *palliative chemotherapy* when referring to treatment with a non-curative intent. What about chemotherapy used solely for symptom control—is that a realistic goal? Oncologists may recommend chemotherapy for symptom control, as there is some clinical trial data that in selected cancers chemotherapy may improve quality of life and/or symptom control without impacting survival. However, for the vast majority of patients, physical symptoms related to the cancer highly correlate with tumor burden; chemotherapy that does not effect tumor growth will not generally not improve physical symptoms caused by the tumor. *Quality of life* may be enhanced for some patients by chemotherapy, even when there is no anti-tumor effect, in large measure due to *hope* for a positive treatment effect.

What information do you need from the consulting oncologist to help a patient decide on the value of chemotherapy in advanced cancer?

**1. What is the Response Rate of the proposed chemotherapy?** The oncologic definition of response rate is: (# of complete responders + # of partial responders)/total # of treated patients. A partial response is  $\geq 50\%$  reduction in measurable tumor; a complete response is complete eradication of measurable tumor; the reduction in tumor must last for at least one-month to qualify as a response. Most clinical trials define progressive tumor when there is  $\geq 25\%$  growth in measurable tumor. **Note**, in some slow growing cancers, *stable disease* resulting from chemotherapy can be very meaningful ( $< 50\%$  reduction, but  $< 25\%$  growth). **Note**: response rate data quoted to patients comes from clinical trials using good performance status, highly monitored patients; in general, the response rates for patients outside of clinical trials can be expected to be lower.

**2. What is the Median Duration of Response of the proposed chemotherapy regimen?** This number is vital for patients to make an informed decision. Response ranges may be as short as 1-2 months for chemotherapy for pancreatic cancer to 9-12 months for 1<sup>st</sup> line breast cancer treatment.

**3. What is the potential treatment burden?** Acute and delayed toxicities, direct and indirect cost (lost work for family members), need for clinic visits or inpatient stays, need for treatment monitoring (e.g. blood tests, x-rays).

**4. How long must treatment be continued to determine effect?** Standard practice is to wait for two full cycles of treatment before assessing response; however, if a patient is progressing during the first cycle, they will almost always continue to progress through a second cycle.

Finally, patients always ask, “will this treatment make me live longer?”. In general, chemotherapy responders (partial or complete) live longer than non-responders—the duration of improved survival largely depends on the duration of response.

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## FAST FACTS AND CONCEPT #15

### CONSTIPATION—WHAT MAKES US GO

Jim Hallenbeck, MD

Constipation- its not fun to have or to treat. As with other symptoms, rational therapy should be based on a sound understanding of underlying physiology.

#### Teaching Points!

Our goal in treating constipation is not to “cure” something, but to help the patient return to the best possible balance that will allow a normal bowel movement to be passed. Four major components affect the production of a normal BM: solid waste, water, motility and lubrication.

**Solid Waste** Too much or too little is a problem. The intestine is most efficient pushing intermediate volumes. Patients on fiber-poor diets may improve if fiber, usually psyllium, is added. **Note: In patients with minimal fluid intake or poor gut motility (e.g. the dying patient) additional fiber can worsen the situation, causing a ‘soft impaction’.**

**Water Content** Stool water content depends on how much water we drink, our general hydration status, how much water is absorbed from and secreted into the intestine and how fast stool moves through the bowel. Any of these variables can be manipulated. It is easiest to limit absorption (and increase secretion into the gut) by adding osmotically active particles that retain water (e.g. Mg salts, or non-absorbable sugars: sorbitol and lactulose). **Note:** Magnesium and phosphorus salts are contraindicated in renal failure. Hyperosmolar solutions may worsen dehydration by drawing body water into the gut lumen. Sickly-sweet sorbitol and lactulose may be difficult to for patients to tolerate.

**Motility** Patients with low-activity levels (bed-ridden, dying patients and patients with advanced neurodegenerative disorders) and use of certain drugs (see below) lead to motility problems. Senna preparations, which stimulate the myenteric plexus are generally favored. Senna tablets (or granules, liquid, or tea), starting with 1 tab QHS, may be gradually increased to 4 tabs BID if needed. **Before increasing motility, evacuate existing, constipated stool with an enema or cramping can result.**

**Lubrication** simply eases passage and minimizes pain that can interfere with excretion. Most commonly used is dioctyl sodium sulfosuccinate (DSS), which decreases stool surface tension much like soap. Usual dosage is 240 mg PO QD-BID. DSS also tastes like soap, so liquid DSS should *never* be given PO, but may be given to tube-fed patients. **Note: DSS is commonly used in combination with senna in opioid-induced constipation, but is generally inadequate as a sole agent.** Mineral oil can be used as an enema but should not be given PO, as pneumonitis can result if aspirated. Glycerin suppositories can provide lubrication and draw-in water due to osmotically active particles.

#### Medications that can cause/exacerbate constipation:

Opioids, Anticholinergics, Tricyclic antidepressants, Scopolamine, Oxybutynin, Promethazine, Diphenhydramine), Lithium, Verapamil, Bismuth, Iron, Aluminum, Calcium salts.

## FAST FACTS AND CONCEPT #16

### MODERATING A FAMILY CONFERENCE

Bruce Ambuel, PhD

**Case scenario:** Bill is a 63-year-old man admitted following a massive MI. In the ER he is stabilized, intubated and transferred to the ICU. By history he experienced an unknown period of anoxia prior to arrival of the EMTs. On exam he remains unresponsive to deep pain after 3 days. On the third day of hospitalization, Bill's wife Susan, and three children join you for a family conference to discuss his treatment. How do you run a family conference? What do you teach residents?

**I. Why:** Clarify conference goals in your own mind.

**II. Where:** A room with comfort, privacy and circular seating.

**III. Who:** Patient (if capable to participating); legal decision maker/health care power of attorney; family members; social support; key health care professionals.

**IV. How:**

**A. Introduction**

- Introduce self & others
- Review meeting goals; clarify if specific decisions need to be made
- Establish ground rules: Each person will have a chance to ask questions and express views; No interruptions; Identify legal decision maker, and describe importance of supportive decision making.

**B. Review medical status**

- Determine what the patient/family already knows: "tell me your understanding of the current medical condition"
- Review current status, plan & prognosis.
- Ask each family member in turn if they have any questions about current status, plan & prognosis
- Defer discussion of decision making until the next step

**C. Family Discussion w/ Decisional Patient**

- Ask patient *What decision(s) are you considering?*
- Ask each family member *Do you have questions or concerns about the treatment plan? How can you support the patient.*

**D. Family Discussion w/ Non-Decisional Patient**

- Ask each family member in turn *What do you believe the patient would choose if they could speak for themselves?*
- Ask each family member *What do you think should be done?*
- Leave room to let family discuss alone.
- If there is consensus, go to V; if no consensus, go to E.

**E. When there is no consensus:**

- Re-state goal: What would the patient say if they could speak?
- Use time as ally: Schedule a follow-up conference the next day.
- Try further discussion: *What values is your decision based upon? How will the decision affect you and other family members.*
- Identify legal decision maker
- Identify resources: Minister/priest; other physicians; ethics committee.

**V. Wrap-up:**

**Summarize** consensus, disagreements, decisions & plan

**Caution** against unexpected outcomes

**Identify** family spokesperson for ongoing communication

**Document** in the chart-- who was present, what decisions were made, follow-up plan

**Don't turf** discontinuation of treatment to nursing

**Continuity:** Maintain contact with family and medical team. Schedule follow-up meetings as needed

**Key teaching points:**

- As moderator, your role is to promote the preconditions for discussion and decision-making. You can not produce a specific outcome from the conference. Recognize what you can control and what you can not control.
- You can adjust the suggested format to fit unique circumstances, but strive to retain key elements. Ask the resident what they think the key elements are. My list includes: introductions; review of conference goals; review of medical condition; summary; documentation; continuity.
- Strive to engage the family and the health care team.

**Reference:**

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## FAST FACTS AND CONCEPT #17

### PATIENT-CENTERED INTERVIEWING: UNDERSTANDING THE ILLNESS EXPERIENCE

Bruce Ambuel, PhD

**Clinical Case:** You admit Mary, a new patient, to the hospital. Mary has end-stage, metastatic pancreatic cancer. She has not seen a physician since she was given a terminal diagnosis 6 months ago at another institution. She is nutritionally depleted and has an apparent gastrointestinal obstruction causing significant bloating and discomfort. While you are admitting her she informs you that she is curing herself by drinking fresh fruit and vegetable juices. She refuses to discuss advanced directives because she “Does not trust you.”

How might you begin to develop a working relationship with Mary? One strategy is to strive to understand both Mary's disease and her illness. Disease refers to a biological, pathophysiological process. Illness refers to the patient's experience. You can assess a patient's illness experience by asking about 4 dimensions—**Feelings, Ideas, Function and Expectations**. The acronym FIFE can be a helpful reminder.

**F = FEELINGS** related to the illness, especially fears

- What are you most concerned about?
- Do you have any specific fears or worries right now?
- I imagine you have had many different feelings as you have coped with this illness.
- Sometimes people have fears that they keep to themselves and don't tell their doctor.

**I = IDEAS** and explanations of the cause

- What do you think might be going on?
- What do you think this pain means?
- Do you have ideas about what might have caused this illness?

**F = FUNCTIONING**, the illness' impact on daily life

- How has your illness affected you day to day?
- What have you had to give up because of your illness?
- What goals do you have now in your life? How has your illness affected your goals?
- How does this illness affect important people in your life?

**E = EXPECTATIONS** of the doctor & the illness

- What do you expect or hope I can do for you today?
- Do you have expectations about how doctors can help?
- What do you hope this treatment will do for you?
- What are your expectations about what might happen with this illness?

#### Teaching Points:

1. Understanding the patient's illness experience complements but does not replace understanding the disease.
2. Asking FIFE questions takes additional time. As you become experienced you will become more efficient. The time you invest understanding the patient's illness experience can save time later.

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## FAST FACTS AND CONCEPT #18

### ORAL OPIOID DOSING INTERVALS

David E. Weissman, MD

A new patient was referred to see me about cancer pain management. She was taking an oxycodone/acetaminophen combination product for breakthrough pain. I asked her how long it provided pain relief; she said, “only about 3 hours”. I asked how often she takes it, she said, “every 6 hours, that’s what it says on the bottle”.

The most commonly prescribed oral opioids include the short-acting products, administered as either single agents (oral morphine, hydromorphone, oxycodone and codeine) or as combination products containing acetaminophen or aspirin (e.g. Percocet, Roxicet, Tylox, Vicodin, Lortab, Codeine w/ Tylenol). In published sources the recommended dosing intervals for these products varies from every 4 hours, to 4-6 hours to 6 hours. However, the Agency for Health Care Policy and Research (AHCPR) Clinical Practice Guideline recommends dosing intervals for all these products at **q 3-4 hours**, an interval more consistent with patient reports of pain relief. (See future Fast Fact for discussion of dosing guidelines for propoxyphene and tramadol products).

Is there a problem with prescribing oral opioids q4-6 or q 6 hours. In the inpatient setting, nursing research from the 1980’s indicated that nurses are more likely to administer the minimum drug dose at the longest allowable interval—an order written 1-2 tabs q 4-6, will often result in 1 tab q6h, with inadequate analgesia. In the home setting, patients and families are often excessively concerned about opioid addiction and opioid side effects, so that if the prescription on the bottle says “take every 6 hours”, patients are apt to follow this recommendation, even if the pain returns in 2-4 hours.

Is there a danger to more frequent drug administration? There is no danger of dosing intervals as often as every 2 hours for single agent products (e.g. morphine), *in patients with normal renal function*, as the peak effect will be reached in 60-90 minutes and there is rapid renal excretion. For combination products, the dosing interval should not be less than every 4 hours to avoid excessive acetaminophen (e.g. 2 Percocet tabs every 4 hours = 4 grams acetaminophen/24 hours, the maximum daily recommended dose).

**Summary:** a) prescribe the products listed above at intervals no greater than every 4 hours; b) provide explicit patient/family counseling regarding safe and allowable dosing intervals.

#### **Suggestion for faculty:**

- 1) the next time you make rounds with house staff review the admission orders for the above listed products; use this Fast Fact as starting point for discussion of appropriate dosing intervals.
- 2) check with your hospital Pharmacy committee – ask if there is hospital policy or guidelines for oral opioid dosing intervals; if not, such guidelines should be developed.

#### **References:**

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## FAST FACTS AND CONCEPT #19

### TAKING A SPIRITUAL HISTORY

Bruce Ambuel, PhD

Illness raises fundamental questions for patients-- *For what may I hope? Why do I suffer? Does my suffering have meaning? What happens after I die?* When a physician stands with a patient as they face death, the physician inevitably plays a role in supporting the patient's inquiry into these fundamental, spiritual questions. In addition some patients have specific preferences or needs regarding medical care, death and dying that are based upon their religious beliefs. The physician often plays an important role in supporting a patient's exploration of these issues. Taking a spiritual history is one way to support the patient in this exploration.

#### Taking a Spiritual History

##### **S—spiritual belief system**

- *Do you have a formal religious affiliation? Can you describe this?*
- *Do you have a spiritual life that is important to you?*
- *What is your clearest sense of the meaning of your life at this time?*

##### **P—personal spirituality**

- *Describe the beliefs and practices of your religion that you personally accept. Describe those beliefs and practices that you do not accept or follow.*
- *In what ways is your spirituality/religion meaningful for you?*
- *How is your spirituality/religion important to you in daily life?*

##### **I—integration with a spiritual community**

- *Do you belong to any religious or spiritual groups or communities?*
- *How do you participate in this group/community? What is your role?*
- *What importance does this group have for you?*
- *In what ways is this group a source of support for you?*
- *What types of support and help does or could this group provide for you in dealing with health issues?*

##### **R—ritualized practices and restrictions**

- *What specific practices do you carry out as part of your religious and spiritual life (e.g. prayer, meditation, service, etc.)*
- *What lifestyle activities or practices does your religion encourage, discourage or forbid?*
- *What meaning do these practices and restrictions have for you? To what extent have you followed these guidelines?*

##### **I—implications for medical care**

- *Are there specific elements of medical care that your religion discourages or forbids? To what extent have you followed these guidelines?*
- *What aspects of your religion/spirituality would you like to keep in mind as I care for you?*
- *What knowledge or understanding would strengthen our relationship as physician and patient?*
- *Are there barriers to our relationship based upon religious or spiritual issues?*
- *Would you like to discuss religious or spiritual implications of health care?*

##### **T—terminal events planning**

- *Are there particular aspects of medical care that you wish to forgo or have withheld because of your religion/spirituality?*
- *Are there religious or spiritual practices or rituals that you would like to have available in the hospital or at home?*
- *Are there religious or spiritual practices that you wish to plan for at the time of death, or following death?*
- *From what sources do you draw strength in order to cope with this illness?*

- *For what in your life do you still feel gratitude even though ill?*
- *When you are afraid or in pain, how do you find comfort?*
- *As we plan for your medical care near the end of life, in what ways will your religion and spirituality influence your decisions?*

**Questions for personal reflection and discussion:**

1. Do you feel comfortable discussing spiritual and religious issues with a patient?
2. What roles are appropriate for a physician to take in this exploration?
3. What roles are inappropriate for a physician to take?

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## FAST FACTS AND CONCEPT #20

### OPIOID DOSE ESCALATION

David E. Weissman, MD

A common question from trainees is how fast, and by how much, can opioids be safely dose escalated. I like to use the analogy of furosemide (Lasix) when discussing this topic. I have never seen a resident order an increase in Lasix from 10 mg to 11 mg, yet that is precisely what often happens with opioids, especially parenteral infusions. Like furosemide, dose escalation of opioids should be done on the basis of a *percentage* increase. In fact, this is reflexively done when opioid-non-opioid fixed combination products are prescribed; going from one to two tablets of codeine/acetaminophen represents a 100% dose increase. The problem arises when oral single agents (e.g. oral morphine) or parenteral infusions are prescribed. Increasing a morphine infusion from 1 to 2 mg/hr is a 100% dose increase; while going from 5 to 6 mg/hr is only a 20% increase, and yet many orders are written, "increase drip by 1 mg/hr, titrate to comfort." Note: some hospitals and nursing units have this as a standing pre-printed order or nursing policy.

In general, patients do not notice a change in analgesia when dose increases are less than 25% above baseline.

Reasonable guidelines include: for moderate to severe pain increase by 50-100%, for mild-moderate pain increase by 25-50%, *irrespective of starting dose*. When dose escalating long-acting opioids or opioid infusions, do not increase the long-acting drug or infusion basal rate more than 100% at any one time, irrespective of how many bolus/breakthrough doses have been used. These guidelines apply to patients with normal renal and hepatic function. For elderly patients, or those with renal/liver disease, dose escalation percentages may need to be reduced.

The recommended frequency of dose escalation depends on the half-life of the drug. Short-acting oral single-agent opioids (e.g. morphine, oxycodone, hydromorphone), not combination products, can be safely dose escalated every 2 hours. Sustained release oral opioids can be escalated every 24 hours, and for Duragesic® (Fentanyl transdermal), methadone or levorphanol, no less than every 72 hours is recommended.

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- Improving End-of-Life Care: A resource guide for physician education. Weissman DE and Ambuel B. Medical College of Wisconsin, 1999.
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## FAST FACTS AND CONCEPT #21

### HOPE AND TRUTH-TELLING

Eric J. Warm, M.D.

The miserable have no other medicine; But only hope.

--William Shakespeare (1564-1616) Claudio, in *Measure for Measure* act3, sc.1.

One of the most difficult things physicians do is give bad news. In particular, medical students and residents are often afraid that by telling someone the truth about his/her diagnosis, they will be responsible for taking away hope. And yet, are physicians really that powerful? Isn't it possible that our fear of causing the loss of hope is just another way we can avoid the harsh reality of impending death? This conflict, between truth-telling and fear of destroying hope, is commonly noted by patients and families who feel that "the doctor is not really telling me everything", a feeling that is highly corrosive to the doctor-patient relationship.

Brody writes, "Hope means different things to different people, and different things to the same person as he/she moves through stages of illness' (1). The physician can play a valuable role in helping the individual patient define their hopes and fears. When close to death, hope often becomes refocused away from long-term goals and towards short-term or spiritual goals. Hope may mean a pain free day, a sense of security, love and non-abandonment, or a wedding to attend in the near future. "When we talk to patients and find out what is really worrying them, we can almost always give them realistic assurances"(1). Factors that often increase hope in the terminally ill include feeling valued, meaningful relationships, reminiscence, humor, realistic goals, and pain and symptom relief. Factors that often decrease hope include feeling devalued, abandoned or isolated ("there is nothing more that can be done"), lack of direction and goals, and unrelieved pain and discomfort. Some strategies for beginning a dialogue about hope and goals include (2):

1. Ask the patient, "*Do you have long term hopes and dreams that have been threatened by this illness?*" Support the patient in recognizing and grieving the possible loss of these hopes.
2. Ask the person if there are particular upcoming events they wish to participate in--a wedding, birth, trip, etc.
3. Ask "What are your hopes for the future?" and "Do you have specific concerns or fears?"
4. Encourage the patient to make short, medium and long range goals with an understanding that the course of terminal illness is always unpredictable.

#### Teaching Tips

- Use the Brody article for discussion article during Morning report or ward rounds.
- When faced with the need to give bad news, ask trainees how they *feel* before they give the news; are they worried about causing a loss of hope? Ask them to reflect further—do they feel *hopeless* because of the situation? Whose feelings are they trying to protect, their own or the patient?
- Ask trainees to make a list of risks and benefits of truth telling—use a starting point for group discussion of the hope—truth telling conflict.

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## FAST FACTS AND CONCEPT #22

### WRITING A CONDOLENCE LETTER Ron Wolfson, PhD and Elizabeth Menkin, MD

One of the most meaningful acts of kindness you can do for a mourner is to write a letter of condolence. The words of sympathy and memory are comforting to the bereaved. More importantly, mourners are very appreciative that you took the time to sit and compose a personal message to them or share a memory of the deceased. For professionals who work with dying patients, writing a condolence letter is an opportunity to reflect on both the pain and the rewards of our work. When we can appreciate the privilege it is to bear witness to the courage, kindness, caring and dignity that our patients and their families exhibit under duress, it gives us strength to continue this work.

A good condolence letter has two goals: to offer tribute to the deceased and to be a source of comfort to the survivors. The best letters are like conversations, as if you were talking during a visit. Most often, they are written to the bereaved person to whom you feel closest, although it could be a general letter to the family. It should be written and sent promptly, generally within two weeks after the death. Use any standard stationery and write it by hand. Here are some specific guidelines for writing a good condolence letter:

Acknowledge the loss and name the deceased. This sets the purpose and tone of the letter. Let the bereaved know how you learned of the death and how you felt upon hearing the news. Using the name of the deceased is a tribute that comforts most mourners.

Express your sympathy. Use words of sympathy that remind the bereaved that they are not alone in their feelings of sadness and loss.

Note special qualities of the deceased. Acknowledge those characteristics that you cherished most about the person who has died. These might be qualities of personality (courage, sensitivity), or attributes (funny, affable), or ways the person related to the world (religious, devoted to community welfare).

Recall a memory about the deceased. Talk about how the deceased touched your life. Try to capture what it was about the person in the story that you admired, appreciated or respected. You may use humor-the funny stories are often the most appreciated by the bereaved.

Remind the bereaved of their personal strengths. Bereavement often brings with it self-doubt and anxiety about one's own personal worth. By reminding the bereaved of the qualities they possess that will help them through this period, you reinforce their ability to cope. Qualities to mention might be patience, optimism, religious belief, resilience, and competence. If you can recall something the deceased used to say about the mourner in this regard, you will really be giving the bereaved a gift. An example: "I was (impressed, inspired, awed, strengthened) by the devotion you and your family evidenced during the period of Mort's illness. Your presence (concern, care, attentiveness) was only one indication of your love for him."

Offer help, but be specific. "If there is anything I can do, please call" actually puts a burden on those in grief who may be totally at a loss about what needs to be done. A definite offer of help is more appreciated. Whatever you offer, do it - don't make an offer you cannot fulfill.

End with a word or phrase of sympathy. Somehow, "sincerely," "love," or "fondly," don't quite make it. Try one of these: "You are in my thoughts and prayers." or "My fond respects to you and yours."

If you don't have enough to say for a formal condolence letter, you may prefer to send a sympathy note. These are shorter communications that can be written on personal stationery or added to a commercially available card. As with a condolence letter, the major goal is to offer a tribute to the deceased and to offer comfort to the bereaved:

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- Wolfson, R. A Time to Mourn, A Time to Comfort pp 223-226 (Woodstock, Vt.: Jewish Lights Publishing, 1993) © The Federation of Jewish Men's Clubs. Order by mail from Jewish Lights Publishing, P.O. Box 237, Woodstock, VT 05091; or call 800-962-4544. \$16.95 + \$3.50 s/h.

## FAST FACTS AND CONCEPTS #23

### DISCUSSING DNR ORDERS IN THE HOSPITAL SETTING—PART 1 Charles F. von Gunten, MD PhD FACP and David E. Weissman, MD FACP

DNR discussions with seriously ill patients in the hospital should always take place in the context of the larger goals of care, using a step-wise approach (1). Prior to any DNR discussions, physicians must know the data defining outcomes and morbidity of CPR in different patient populations (2).

#### 1. Establish the setting

Ensure comfort and privacy; sit down next to the patient. Ask if family members or others should be present. Introduce the subject with a phrase such as: *I'd like to talk with you about possible health care decisions in the future.*

#### 2. What does the patient understand?

Ask an open-ended question to elicit patient understanding about their current health situation. It is important to get the patient talking--if the doctor is doing all the talking, it is unlikely that the rest of the conversation will go well. Consider starting with phrases such as: *What do you understand about your current health situation? or What have the doctors told you about your condition?*

If the patient does not know/appreciate their current status this is time to review that information. An informed decision about DNR status is only possible if the patient has a clear understanding of their illness and prognosis.

#### 3. What does the patient expect?

Next, ask the patient to consider the future. Examples of ways to start this discussion are:

*What do you expect in the future? or What goals do you have for the time you have left—what is important to you? This step allows you to listen while the patient describes a real or imagined future. Most patients with advanced disease use this opening to voice their thoughts about dying—typically mentioning comfort, family, and home, as their goals of care. If there is a sharp discontinuity between what you expect and what the patient expects, this is the time to clarify.*

Listen carefully to the patient's responses; most patients have thought a lot about dying, they only need permission to talk about what they have been thinking. Setting up the conversation in this way permits the physician to respond with clarifying and confirming comments such as:

*So what you're saying is, you want to be as comfortable as possible when the time comes. or*

*What you've said is, you want us to do everything we can to fight, but when the time comes, you want to die peacefully.*

Whenever possible, ask patients to explain the values that underlie their decisions: *can you explain why you feel that way?.*

#### 4. Discuss a DNR order

Use language that the patient will understand, give information in small pieces. Don't introduce CPR in mechanistic terms (e.g. "starting the heart" or "putting on a breathing machine"). Never say, "Do you want us to do everything?" "Everything" is euphemistic and easily misinterpreted. Using the word "die" helps to clarify that CPR is a treatment that tries to reverse death. To a layman, when the heart and/or lungs stop, the patient dies.

If the patient and doctor mutually recognize that death is approaching and the goals of care are comfort, then CPR is not an appropriate medical intervention and a clear recommendation against CPR should be made. You can say: *We have agreed that the goals of care are to keep you comfortable and get you home. With this in mind, I do not recommend the use of artificial or heroic means to keep you alive. If you agree with this, I will write an order in the chart that if you die, no attempt to resuscitate you will be made.*

If the clinical situation is more ambiguous in terms of prognosis and goals of care, and you have no clear recommendation, the issue of DNR can be raised by asking: *If you should die in spite of all of our efforts, do you want us to use heroic measures to attempt to bring you back? or How do you want things to be when you die?* If you are asked to explain "heroic measures", then describe the purpose, risks and benefits of CPR in greater detail. The clinical pearl here is to start general and become specific later in the conversation.

#### 5. Respond to emotions

Strong emotions are common when discussing death. Typically the emotional response is brief. The most profound initial response a physician can make may be silence, providing a reassuring touch, and offering facial tissues.

## **6. Establish a plan**

Clarify the orders and plans that will accomplish the overall goals you have discussed, not just the DNR order. A DNR order does not address any aspect of care other than preventing the use of CPR. It is unwise and poor practice to use DNR status as a proxy for other life-sustaining therapies. Consider using words: *We will continue maximal medical therapy to meet your goals. However, if you die in spite of everything, we won't use CPR to bring you back. or It sounds like we should move to a plan that maximizes your comfort. Therefore, in addition to a DNR order, I'd like to ask my hospice/palliative care colleagues to give you some information.*

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## FAST FACTS AND CONCEPTS #24

### DISCUSSING DNR ORDERS IN THE HOSPITAL SETTING—PART 2

Charles F. von Gunten, MD PhD FACP and David E. Weissman, MD FACP

The basic steps in the DNR discussion for seriously ill hospitalized patients were described In Fast Fact 23. If you have followed those steps, what do you do if the patient or family/surrogate continues to want CPR and you think it is not in the patient's best interest? The seemingly unreasonable request for CPR typically stems from one of several themes:

#### **1. Inaccurate information about CPR.**

The general public has an inflated perception of CPR success (1). While most people believe that CPR works 60-85% of the time, in fact the actual survival to hospital discharge is more like 10-15% for all patients, and less than 5% for the elderly and those with serious illnesses. This is a time to review/clarify the indications, contraindications, potential outcomes and morbidity of CPR. Start an discussion by asking, "*What do you know about CPR?*"

#### **2. Hopes, fears and guilt.**

Be aware that guilt (I haven't lived nearby to care for my dying mother) and fear (I am afraid to make a decision that could lead to my wife's' death) are common motivating emotions for a persistent CPR request. Some patients or families need to be given an explicit recommendation, or permission from the physician, to stop all efforts to prolong life, to be told that that death is coming and that they no longer have to continue "fighting". Whenever possible, try to identify the underlying emotions and offer empathic comments that open the door to further conversation: "*This decision seems very hard for you.*" "*I want to give you the best medical care possible; I know you still want CPR, can you tell me more about your decision?*"

Agreeing to a DNR order for many patients is equivalent to their "choosing" to die. Acceptance of impending death occurs over a vastly different time course for different patients/families; for some, it never occurs. Some patients see CPR as a "last chance" for continued life. Probe with open-ended questions: "*What do you expect to happen--What do you think would be done differently, after the resuscitation, that wasn't being done before?*" Most patients usually describe hope for a new treatment. Use the opportunity to respond by describing that you are doing everything in your power to prolong their life before a cardiopulmonary arrest---you wouldn't be "saving something" to do after they had died. If patients are not ready for a DNR order, don't let it distract you from other important end-of-life care needs; emphasize the goals that you are trying to achieve; save a repeat discussion for a future time; good care, relationship building and time will help resolve most conflicts.

#### **3. Distrust of the medical care system.**

Patients or families may give you a clue that there is a fundamental distrust of doctors or the medical system; this should be addressed openly. "*What you said makes me wonder if you may not have full trust in the doctors and nurses to do what is best for you? can you tell me about your concerns ?*"

#### **Managing Persistent Requests for CPR**

Decide if you believe that CPR represents a futile medical treatment—that is, CPR cannot be expected to either restore cardiopulmonary function or to achieve the expressed goals of the patient (3). Physicians are not legally or ethically obligated to participate in a futile medical treatment. (some facilities have a policy that a physician may enter a DNR order in the chart against patient wishes). Your options at this time include:

- transfer care to another physician chosen by the patient/family;
- plan to perform CPR at the time of death---*but don't end the discussion*. Engage the patient about their wishes if they survive the resuscitation attempt. Tell them that you need guidance because it is very likely that if they survive CPR, they will be on life support in the ICU, and they may not be able to make decisions for themselves; ask them (or the family) to help you determine guidelines for deciding whether to continue life-support measures. If not already done, clarify if there is a legal surrogate decision-maker.

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## FAST FACTS AND CONCEPTS #25

### OPIOIDS AND NAUSEA

David E. Weissman, MD

**Why do patients get nauseated and vomit after receiving an opioid?** Commonly ascribed by patients as an “allergy”, opioid-induced nausea/vomiting is not an allergic reaction. In fact, rather than indicating a pathologic reaction, nausea indicates normal functioning of the brain! Opioid-induced nausea occurs through two mechanisms:

- at the base of the 4<sup>th</sup> ventricle lies the chemoreceptor trigger zone (CTZ), a “sampling port”, to detect substances that don’t belong in the blood. Adjacent to the CTZ lies the medullary vomiting center (VC) , which controls the complex muscular sequence of vomiting. When the CTZ detects a noxious chemical in the blood, a signal is sent to the VC and voila! vomiting ensues. Of note, this is the same reason why patients vomit after receiving chemotherapy. Although this mechanism works well for orally ingested chemicals, it was evolutionarily never designed for intravenous morphine!
- A second cause of opioid nausea/vomiting is due to stimulation of the vestibular apparatus—patients note a spinning sensation with their nausea.

**Do all opioids produce the same degree of nausea?** The standard teaching is that at equianalgesic doses, all mu agonists will produce an equivalent degree of nausea (1). However, in clinical practice, morphine and codeine are often mentioned as the worst offenders; perhaps because they are the most commonly prescribed.

**Why are some patients more sensitive to the emetic effects of opioids than others?** Unknown

**What is the natural history of opioid-induced nausea?** Most patients develop rapid tolerance to the emetic effects, so that within 3-7 days, at a constant opioid dose, the emetic effect will abate.

**What are management approaches?**

- Anti-emetics—start with low-cost dopamine antagonists (e.g. prochlorperazine) or anti-cholinergics (e.g. scopolamine); use 5HT<sub>3</sub> antagonists for more refractory cases. Anti-histamines may be helpful for patients who note a spinning sensation.
- Dose adjustment—if good pain relief is achieved but associated with nausea, it may be possible to lower the dose, still retain good analgesia but eliminate the nausea.
- Switching opioid---since all mu agonist opioids cause nausea, there is little rationale for changing drugs; however, patients may be more sensitive to one opioid compared to another, thus a change is warranted when the above options are not effective. Note: since tolerance to nausea develops rapidly, one never knows if a reduction in nausea is from the change of drug or tolerance.

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## FAST FACTS AND CONCEPTS #26

### THE EXPLANATORY MODEL

Jim Hallenbeck, MD

*Most things that don't make sense from the outside DO make sense if understood from the inside...*

Have you ever had this experience – you are talking with a patient about some care option and you just cannot come to an agreement. 'It's seems so obvious to you what needs to be done; how come he/she can't see it? It just doesn't make sense... yet, perhaps it does. People, especially those from different cultural backgrounds often have very different ways of understanding illness, its consequences, and how best to treat it - a different explanatory model.

Anthropologist Arthur Kleinman suggested that by exploring the *explanatory model* of illness we can better understand our patients and families, in effect making sense, out of nonsense. *To understand others, ask What, Why How and Who* questions:

**What** do you call the problem, **What** do you think the illness does, **What** do you think the natural course of the illness is, **What** do you fear?

**Why** do you think this illness or problem has occurred?

**How** do you think the sickness should be treated, **How** do want us to help you?

**Who** do you turn to for help, **Who** should be involved in decision making?

Inquiring about a patient's or family's explanatory model works best in the context of a meaningful relationship. The inquiry is best initiated with a statement of **respect** such as, *"I know different people have very different ways of understanding illness...Please help me understand how you see things."*

The explanatory model can also be useful in interpreting the culture of Western medicine to others who find our explanatory model peculiar. The Western medical model is *mechanistic* in nature; the body is a machine, prone to malfunctions, requiring tune-ups or occasional part replacement. The patient's obligation is to present this 'machine' to the 'mechanic' (physician) who will make repairs. This explanatory model differs greatly from other models that view illness more as an imbalance of forces (ex: Chinese – yin-yang, Hispanic- hot-cold) or as being influenced by unseen forces such as spirits, demons or curses.

Gaining a better understanding of another's explanatory model will not in and of itself resolve conflicts in end-of-life care. However, a foundation can be established for negotiating a course of care that is acceptable within both the Western medical model and the model of the patient and family. Negotiation and compromise are critical; trying to convince the other that your explanatory model is correct, and theirs is wrong, will not work and will only worsen your relationship.

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## FAST FACTS AND CONCEPTS #27

### DYSPNEA AT END-OF-LIFE

David E. Weissman, MD

Few problems cause as much distress for patients, families and the care team, as the management of dyspnea at end-of-life.

**Assessment** Dyspnea at end-of-life may be present during the **Syndrome of Imminent Death (see Fast Fact #3)** or occur earlier in the disease trajectory. Looking for simple problems is always warranted: is the Oxygen turned on?, is the tubing kinked?, is there fluid overload from IV fluids or TPN?, is dyspnea part of an acute anxiety episode, severe pain, constipation or urinary retention?; is there a new pneumothorax or worsening pleural effusion?. Understanding 1) where patients are at in the dying trajectory and 2) their identified goals of care, is essential to guide the extent of workup seeking reversible causes. If the patient is clearly dying, and the goals of care are comfort, then pulse oximetry, blood gas, EKG, CXR, etc. are not indicated.

**Treatment—General Measures** Positioning (sitting up), increasing air movement via a fan or open window, and use of bedside relaxation techniques are all helpful; decrease or discontinue use of IV fluids.

**Treatment w/ Opioids** is the drug of choice for dyspnea. In the opioid naïve patient, low doses of oral (10-15 mg) or parenteral morphine (2-5 mg), will provide relief for most patients; higher doses will be needed for patients on chronic opioids (50% over baseline). When dyspnea is acute and severe, parenteral is the route of choice: 2-5 mg IV every 5-10 minutes until relief. In the inpatient setting, a continuous opioid infusion, with a PCA dose that patients, nurses or families can administer, will provide the timeliest relief. Nebulized morphine can be used, but its relative benefit compared to po/IV in controlled trials has not been proven.

**Treatment w/ Oxygen** nasal cannula is better tolerated than a mask, especially in the terminal setting; Oxygen is not always helpful; a therapeutic trial, based on symptom relief, not pulse oximetry, is indicated. There is little reason to go beyond 4-6 L/min of oxygen via nasal cannula in the actively dying patient. Request a face-tent for patients who are claustrophobic from a mask.

**Treatment w/ Other drugs** Anti-tussives can help with cough, anti-cholinergics (e.g. Scopolamine) will help reduce secretions and anxiolytics (e.g. lorazepam) can reduce the anxiety component of dyspnea.

**Family/Team Discussions** While there is no good evidence that proper symptom management for terminal dyspnea significantly hastens death, the course and management of terminal dyspnea, especially when opioids are used, should be fully discussed with family members, nurses and others participating in care to avoid confusion about symptom relief vs. fears of euthanasia or assisted suicide ([see Fast Fact #8](#)).

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**FAST FACT AND CONCEPTS #28  
END-OF-LIFE EDUCATION PROJECT**

**Subcutaneous Opioid Infusions**

**David E. Weissman, MD**

An intravenous opioid infusion is the standard of care for managing moderate-severe pain or dyspnea when the oral/rectal route is unavailable or frequent dose adjustments are needed. However, IV infusions have the burden of needing intravenous access. As death nears, the burden of maintaining IV access, especially in the home setting, can be enormous. An alternative well known among hospice professionals, but little appreciated in other care settings, is the subcutaneous (SQ) route for continuous, PCA or intermittent opioid injections (1,2).

**Drugs**

Morphine, hydromorphone (Dilaudid), fentanyl and sufentanil can all be safely administered as a continuous SQ infusion.

**Dosing equivalents**

SQ dosing is equivalent to IV; a 3 mg/hr IV morphine infusion is equal to an 3 mg SQ infusion.

**Pharmacokinetics**

SQ infusions can produce the same blood levels as chronic IV infusions. There is no data to suggest that cachectic, febrile or hypotensive patients have problems with drug absorption (3).

**Volume**

The limiting feature of a SQ infusion is the infusion rate; in general, SQ tissue can absorb up to 2 cc/hr; for higher volumes hyaluronidase (Wydase) can be administered. At low opioid requirements morphine is the drug of choice; a switch to hydromorphone is indicated for a high opioid requirement due it's higher intrinsic potency (6:1), thus the need for a smaller infusion volume.

**Administration**

Use a 25 or 27 gauge butterfly needle—place on the upper arm, shoulder, abdomen or thigh. Avoid the chest wall to prevent iatrogenic pneumothorax during needle insertion. The needle can be left indefinitely, without site change, unless a local reaction develops—typically, patients can keep the same needle in place for up to one week at a time.

**Toxicity**

Local skin irritation, itching, site bleeding or infection can occur; of these, skin irritation is the most common and easily treated by a needle site change.

**Patient acceptance**

Patients readily appreciate the ease of SQ administration as an alternative to bothersome/painful IV access issues.

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**FAST FACT AND CONCEPTS #29**  
**END-OF-LIFE EDUCATION PROJECT**

**RESPONDING TO PATIENT EMOTION**

**Bruce Ambuel, PhD**

Listening to, recognizing, and responding to patient emotions is an essential skill for physicians who care for dying patients. We often think of this skill as innate—either we have the skill as an attribute of our personality, or we don't. In fact the skill of responding empathetically to patient emotions can be learned. Here are 8 tasks that guide you in responding to patient emotion:

1. **Listen to the patient.** Listen; Do not interrupt while the patient is talking. Patients and families facing end-of-life decisions want an opportunity to talk with their doctor about what they are thinking and feeling.
2. **Listen to yourself.** Be aware of your own emotions. Your feelings of sadness, anger, anxiety, fear or happiness are often the first clue that a patient is communicating an important emotional message. Avoid the trap of quickly acting on your emotions. For example, if you find yourself feeling angry, do not tell the patient you are angry; instead use your feeling of anger as a cue to find out more about what the patient is saying.
3. **Reflect thoughts, feelings and behavior.** Reflection means re-stating what a patient has said using their own words and phrases. Reflection 1) tells the patient that you are listening and care, giving permission to discuss sensitive topics; 2) allows the patient to listen to their own thoughts, heightening their self-awareness; 3) allows the patient to confirm, correct or amplify upon your understanding.

Example #1: Reflecting thoughts:

Patient: "This is a tough decision...I just can't decide whether I want to enter a hospice program or continue with chemotherapy."

Physician: "You are having a hard time deciding between hospice and chemotherapy."

Example #2: Reflecting emotions:

Patient: "I've been feeling run down and discouraged. I guess I'm a little overwhelmed."

Physician: "You have been feeling discouraged and overwhelmed ..."

Example #3: Reflecting behavior:

Patient begins to cry.

Physician: "I see that you are crying..."

4. **Affirmation & respect.** Patients and families take a risk when they share their emotions; affirm and support the patient. Examples: *Thank you for sharing your feelings and thoughts.* or, *I'm glad that you are talking with me about your feeling.* or, *I can do a better job as your doctor when I know how you are feeling.*
5. **Empathic curiosity.** Be curious and request more information: *I'd like to know more about this...;* or *Please tell me more about the sadness you are feeling ....*
6. **Summarize/paraphrase.** Restate the patient's story in your own words. In contrast to reflection, paraphrase and summary involves interpretation and condensation of the patient's narrative. An effective comment is brief yet captures essential meaning and emotion. *We have been talking for awhile about how things are going for you. Let me see if I can summarize what you have said, then you can let me know if I'm on track ....*
7. **Make a plan.** Sometimes a patient simply wants to talk about their feelings; other times, action may be important. Possible action steps include making changes in how you and the patient communicate, helping the patient identify sources of social support, and changing the plan of care. Find out what the patient is expecting—*How can I help?* or, *What, if anything, would make a difference for you?*
8. **Offer Follow-up**  
*I would like to check in with you next week and see how things are going. In the mean time, please let me know if you need to talk before then, OK?*

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**FAST FACT AND CONCEPTS #30**  
**END-OF-LIFE EDUCATION PROJECT**

**PROGNOSTICATION**

**Eric J. Warm M.D.**

**Doctors are poor prognosticators**

Physicians tend to be overly optimistic when dealing with prognosis. A recent study by Christakis illustrates this point<sup>1</sup>. He asked 343 physicians to provide survival estimates for 468 terminally ill patients at the time of hospice referral. Only 20% of predictions were accurate (as defined as within 33% of actual survival). Overall, doctors overestimated by a factor of 5.3! Every type of doctor tended to overestimate, although the more experienced physicians had less error. Inaccurate predictions were given for all types of patients, including cancer patients and those with chronic non-malignant disease. Interestingly, as the duration of the physician patient relationship increased, prognostic accuracy decreased. In other words, the longer a doctor knew his/her patient, the less likely he/she was to correctly predict prognosis.

**Why does this matter?**

Undue optimism may hurt patients in multiple ways. First of all, it may explain some of the findings of the SUPPORT trial.<sup>2</sup> This study showed that a large number of DNR orders are written in the last 2 days of life, and that physician knowledge about patient DNR preference is poor. Why review issues surrounding EOL care when the prognosis is rosy? In the same vein, undue optimism may lead to late hospice referral. Hospice care, however, is most beneficial when utilized for months, not days, as commonly happens currently. Lastly, an overestimation of prognosis may cause patients to request futile care. Learning the true prognosis of a disease very late in the course is a difficult pill to swallow, and makes for an abrupt transition from curative/life-prolonging care to palliative care.

Appropriate prognostic information is essential for informed advance planning decisions. This is often acutely true in the setting of the DNR discussion. Murphy showed that people change EOL care decisions based on their perception of prognosis.<sup>3</sup> He asked 371 adults age 65 or older if they wanted CPR in case of arrest during an acute illness. Before learning the true probability of survival 41% wanted CPR. After learning the true probability of CPR, only 22% wanted it. If asked about a chronic disease, in which the life expectancy was less than one year, only 5% wanted CPR.

**What to do?**

Innumerable reasons have been put forward for why we overestimate prognosis (see Christakis' book *Death Foretold*<sup>4</sup>). Probably the most important step in correcting the problem is recognizing that it exists. Ask yourself, "Would I be surprised if my patient died in the next year?" Answering "no" may trigger a re-assessment of the patient's current state and immediate future. There are many scientifically derived models of patient survival probability that can be used, and there are many well recognized clinical predictors (see Fast Fact #13). Metastatic cancer has the most predictable course; assessing where a patient is along the dying trajectory is relatively easy. Other diseases such as COPD or CHF are more difficult to predict. Each exacerbation can lead to remission (and future exacerbation) or death, and knowing which will occur on any given admission can be extremely challenging. This uncertainty however, can be an excellent starting place for discussion with the patient; communicating that one of the possible outcomes of an exacerbation is death allows you both to plan accordingly.

Finally, you may want to consider a second opinion for patients you are particularly close to. Present the data objectively to a colleague and ask them to prognosticate using the information alone. Studies by Christakis and others suggest that impartial observers are more accurate than physicians well invested in the patient-physician relationship.

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**FAST FACT AND CONCEPTS #31**  
**END-OF-LIFE EDUCATION PROJECT**

**CONFRONTING PERSONAL MORTALITY**

**Eric J. Warm M.D.**

Most of us fear our own death, it is part of the human experience. Various authors suggest that the desire to deny mortality is part of every physician's decision to enter the field of Medicine. When learning about taking care of the dying, we are often told to "confront our own mortality". However, asking people to suddenly confront their own mortality is a bit naïve. Young physicians may have no real context for this (unless they have had a near death experience). Confronting one's mortality typically means different things to different people and different things to the same person at various stages of life. Rather than making blanket statements about confronting mortality, it may be helpful to break it down into individual episodes, times when we feel particularly vulnerable, as windows to self-exploration.

I recently told the following story at the end of a Grand Rounds presentation. A patient of mine was in the hospital for the third time in a year for pneumonia. He was 49 year-old with severe emphysema. Each admission was worse than the last. One afternoon as I came to see him, I paused at his door; through the window I saw a cachectic man hunched over a tray table with pursed lip breathing. He was breathless and suffering. At that moment I could not get myself to open the door; it was too difficult for me. I walked around the hospital doing other things for an hour before I finally made it into his room. He said he felt terrible. I said I was sorry, and that he was getting all the medicine I could think of. The conversation was brief and difficult, it was the same conversation we had the last time he was sick and it went no further than symptoms or treatments. I did not feel better after talking to him. Four months later I received an early morning call from the emergency department, my patient had presented in respiratory failure, was intubated, had three chest tubes placed for ruptured bullae, and died. In the words of the ER physician, 'it was ugly'.

Other than the housestaff asking if he wanted 'everything done' (he said yes), I had no discussion about end-of-life care/hopes/wishes with my patient. Two aspects of personal vulnerability hindered me. First, I have asthma, and my identification with this patients' dyspnea was painful for me. Second, every time I met with this patient I felt bad about the encounter, I thought I had nothing to offer this patient, as his physician; I had failed him, I had no cure. And so to avoid the feeling of failure, I avoided discussing issues surrounding his imminent death, and thus, failed him in another way. Had I been more self-aware of my own issues, I would have been able to identify the reasons I couldn't enter the room.

Since then, I have learned to listen to my feelings-when I am avoiding something unpleasant, it usually means I am feeling vulnerable. My guess is that adding up these individual episodes when we feel vulnerable, becoming increasingly aware of *self*, is what is meant by the term *confronting your own mortality*. At the end of the Grand Rounds where I presented my story, I asked everyone to turn to the person next to him or her and tell their own story, the one that came to their mind as I was telling mine; the room boiled with conversation.

**Reference**

Buckman, Robert. Communication in palliative care: a practical guide. In Oxford Textbook of Palliative Care 2<sup>nd</sup> ed. Oxford University Press. 1998, pp.141-156.

## FAST FACT AND CONCEPTS #32 END-OF-LIFE EDUCATION PROJECT

### GRIEF AND BEREAVEMENT(Part 1) James Hallenbeck, MD

Grief is a normal response to loss, any loss: a job, a limb, a life. Clinicians have an important role in facilitating healthy grieving, and observing for signs of complicated grief. Grief experienced by dying patients and loved-ones prior to and in anticipation of death is called *anticipatory grief (or mourning)*; grief of loved-ones following a death is termed *bereavement*.

- Grief is a normal response to loss that involves *processes* and *tasks* at emotional, cognitive and behavioral levels. The initial shock of learning of impending or actual loss evolves into a process of creating a new relationship between the grieving person and the person (or object) of loss.
- Grief tends to be experienced in waves, triggered predictably by new losses (such as a loss of functional status) or unpredictably, by seemingly trivial events. Over time the intensity of these waves tends to decrease.
- Grief does not have a set schedule; individuals progress through the grief process at different speeds. However, no progress, getting stuck in one phase of grief, can be cause for concern.
- Anticipatory grief for patients involves reviewing one's life; for families/friends it means looking to a future without the dying person. Byock has suggested that patients and families may wish to say to each other, in some way, "Forgive me, I forgive you, thank you, I love you and good-bye." People from different cultural backgrounds may differ in terms of how and what they want to say or do in preparation for death. Not knowing or acknowledging that a person is dying will likely delay or interfere with normal anticipatory grief. (See Fast Fact #30, Prognostication)
- Grief reactions in dying patients may be confused with pain, depression and even imminent death (e.g. social withdrawal may imply pain, depression or anticipatory grief). **Note: Neither pain nor depression are normal aspects of the dying experience, they should be carefully evaluated as both are treatable.**
- Grief tends to be experienced as sadness, whereas depression is associated with lack of self-worth. The question, "*Are you sad or are you feeling depressed,*" may help begin a dialog to help you distinguish between grief and clinical depression.

#### What can the physician do to facilitate normal grieving:

- Be honest—be very honest when discussing prognosis, goals and treatment options; nothing inhibits normal anticipatory grief more than ambiguity from the physician.
- Listen—open the door to meaningful discussion, ask, "How are you doing with this recent news";
- "are you scared", "tell me what is going through your mind".
- Ask for help---you are not the only health professional available to help with grief—contact a nurse, social worker, chaplain or psychologist/psychiatrist if you need assistance.
- Assess for and aggressively treat pain and depression.

#### Watch for Part 2: Bereavement and Complicated Bereavement

#### References:

Byock I. *Dying Well*. Riverhead. NY. 1997.

Rando TA, *Clinical Dimensions of Anticipatory Mourning*, Research Press, Champaign, Il, 2000.

**FAST FACT AND CONCEPTS #33**  
**VENTILATOR WITHDRAWAL PROTOCOL (Part I)**

**Charles von Gunten and David E. Weissman**

Note: This is Part I of a three-part series; Part II will review use of sedating medication for ventilator withdrawal and Part III will review information for families.

Once it is decided that further aggressive medical care is incapable of meeting the desired goals of care for a ventilator-dependent patient, discussing ventilator withdrawal to allow death is appropriate (see [Fast Fact #16](#)). Such a decision is never easy for family members, doctors, nurses, and other critical care staff. All members of the care team should be involved and appraised of the decision-making process and have the opportunity to discuss the plan of care.

**Options for Ventilator Withdrawal** Two methods have been described: Immediate extubation and terminal weaning. The clinician's and patient's comfort, and the family's perceptions, should influence the choice. In immediate extubation, the endotracheal tube is removed after appropriate suctioning. Humidified air or oxygen is given to prevent the airway from drying. This is the preferred approach to relieve discomfort if the patient is conscious, the volume of secretions is low, and the airway is unlikely to be compromised after extubation. In terminal weaning, the ventilator rate, positive end-expiratory pressure (PEEP), and oxygen levels are decreased while the endotracheal tube is left in place. Terminal weaning may be carried out over a period of as little as 30 to 60 minutes or longer (see ref. 2. for protocol). If the patient survives and it is decided to leave the endotracheal tube in place, a Briggs T-piece can be placed.

**Prior to Immediate Ventilator Withdrawal**

1. Encourage family to make arrangements for special music or rituals that may be important to them. If the patient is a child, ask parents if they would like to hold the child as he or she dies. Make arrangements for young siblings to have their own support if they are to be present. (See Part III of this series for additional information for families)
2. Document clinical findings, discussion with families/surrogates, and care plan in the patient's chart.
3. The physician should personally supervise that all monitors and alarms in the room are turned off. Ensure that staff is assigned to override alarms that cannot be turned off if they are triggered.
4. Remove any restraints. Remove unnecessary medical paraphernalia (e.g. NG tube, venous compression device).
5. Turn off blood pressure support medications, paralytic medication and discontinue other life-sustaining treatments (e.g. artificial nutrition/hydration, antibiotics, dialysis). Note: some families have difficulty accepting discontinuation of hydration/nutrition—these can be left in place if desired.
6. Maintain intravenous access for administration of palliative medications.
7. Clear a space for family access to the bedside Invite the family into the room. If the patient is an infant or young child, offer to have the parent hold the child.
8. Establish adequate symptom control prior to extubation (See Part II in this series).
9. Have a syringe of a sedating medication at the bedside (midazolam, lorazepam) to use in case distressing tachypnea or other symptoms.

**At the time of ventilator withdrawal**

1. Once you are sure the patient is comfortable, set the FiO<sub>2</sub> to .21; observe for signs of respiratory distress; adjust medication as needed to relieve distress before proceeding further.
2. If the patient appears comfortable, prepare to remove the endotracheal tube; try a few moments of "no assist" before the endotracheal tube is removed.
3. A nurse should be stationed at the opposite side of the bed with a washcloth and oral suction catheter.
4. When ready to proceed, deflate the endotracheal (ET) tube cuff. If possible, someone should be assigned to silence, turn off the ventilator, and move it out of the way. Once the cuff is deflated, remove the ET tube under a clean towel which collects most of the secretions and keep the ET tube covered with the towel. If oropharyngeal secretions are excessive, suction them away.
5. The family and the nurse should have tissues for extra secretions, and for tears. The family should be encouraged to hold the patient's hand and provide assurances to their loved one.
6. Be prepared to spend additional time with the family discussing questions concerns. After death occurs, encourage the family to spend as much time at the bedside as they require; provide acute grief support and follow-up bereavement support

**Reference:**

Adapted from: Emanuel, LL, von Gunten, CF, Ferris, FF (eds.). "Module 11: Withholding and Withdrawing Therapy," *The EPEC Curriculum: Education for Physicians on End-of-life Care*. [www.EPEC.net](http://www.EPEC.net): The EPEC Project, 1999.

Principles and practice of withdrawing life-sustaining treatment in the ICU. Rubenfeld GD and Crawford SW, in *Managing death in the Intensive Care Unit*. Curtis JR and Rubenfeld GD (eds) Oxford University Press, 2001 pgs: 127-147.

## FAST FACT AND CONCEPTS #34

### SYMPTOM CONTROL FOR VENTILATOR WITHDRAWAL IN THE DYING PATIENT

Charles von Gunten and David E. Weissman

**Note: This is Part II of a three-part series; Part I reviewed a protocol for removing the ventilator (FF#33), Part III will review information for families.**

The most common symptoms related to ventilator withdrawal are breathlessness and anxiety. Opioids and benzodiazepines are the primary medications used to provide comfort, typically requiring doses that cause sedation, to achieve good symptom control. Concerns about unintended secondary effects, such as shortened life, are exaggerated, particularly if established dosing guidelines are followed (see Fast Fact #8). There is no medical, ethical or legal justification for withholding sedating medication, when death following ventilator withdrawal is the expected goal, out of fear of hastening death. However, increasing doses beyond the levels needed to achieve comfort/sedation, *with the intention of hastening death*, is euthanasia and is not acceptable/legal medical practice.

Sedation should be provided to all patients, even those who are comatose. The dose needed to control symptoms will depend to some degree on the neurological status of the patient and the amount of similar medication used up to the time of extubation. Patients who are awake at the time of extubation or in whom significant amounts of opioids and benzodiazepines have been used previously, will require greater dosages or change to a barbiturate to achieve symptom control. Note: in all cases, a senior-level physician should remain at the bedside prior to and immediately following extubation until adequate symptom control is assured.

#### Medication Protocol

1. Discontinue paralytics; Do not use paralytic agents for ventilator withdrawal.
2. Before ventilator withdrawal: Administer a bolus dose of morphine 2-10 mg IV and start a continuous morphine infusion at 50% of the bolus dose/h. Also, administer 1 to 2 mg of midazolam IV (or Lorazepam) and begin a midazolam infusion at 1 mg/h. Note: Sedation should also be administered to the comatose patient. For children, obtain dosing advice from a pharmacist or pediatric intensivist.
3. Titrate these drugs to minimize anxiety and achieve the desired state of comfort and sedation prior to extubation.
4. Have additional medication drawn up and ready to administer at the bedside so it can be rapidly administered, if needed to provide symptom relief.
5. After ventilator withdrawal: If distress ensues aggressive and immediate symptom control is needed. Use morphine 5 to 10 mg IV push q 10 min, and/or midazolam, 2 to 4 mg IV push q 10 min, until distress is relieved. Adjust both infusion rates to maintain relief.
6. Remember that specific dosages are less important than the goal of symptom relief. A general goal should be to keep the respiratory rate < 30, heart rate < 100 and eliminate grimacing and agitation.
7. For symptoms refractory to the above treatments, use a barbiturate (e.g. pentobarbital), haloperidol or propofol.

#### References

Adapted from: Emanuel, LL, von Gunten, CF, Ferris, FF (eds.). "Module 11: Withholding and Withdrawing Therapy," *The EPEC Curriculum: Education for Physicians on End-of-life Care*. [www.EPEC.net](http://www.EPEC.net): The EPEC Project, 1999.

Principles and practice of withdrawing life-sustaining treatment in the ICU. Rubenfeld GD and Crawford SW, in *Managing death in the Intensive Care Unit*. Curtis JR and Rubenfeld GD (eds) Oxford University Press, 2001 pgs 127-147.

## INFORMATION FOR PATIENTS AND FAMILIES ABOUT VENTILATOR WITHDRAWAL

Charles von Gunten and David E. Weissman

**Note: This is Part III of a three-part series; Part I reviewed a protocol for removing the ventilator (FF#33), Part II reviewed medications for symptom control (FF#34).**

The physician's counseling of families is a critical aspect of care for the dying patient who is to be removed from a ventilator. Ideally the family will be involved in the decision to withdraw the ventilator and thus apprised of the goals of care. Before withdrawal, the following issues should be discussed.

### **Potential outcome of ventilator withdrawal**

Assuming all other life-sustaining treatments have been stopped, including artificial hydration and nutrition, there are several potential outcomes: rapid death within minutes (typically patients with sepsis on maximal blood pressure support), death within hours to days (see FF# 3), or stable cardiopulmonary function leading to a different set of care plans, including potential hospital discharge. If the latter possibility is realistic, future management plans should be discussed prior to ventilator removal, since some families may desire to resume certain treatments, notably artificial hydration/nutrition. Generally, by the nature of the underlying illness and the established goals, it is fairly easy to predict which category will be operative, but all families should be prepared for some degree of prognostic uncertainty (see FF #30).

### **The procedure of ventilator withdrawal**

Never make assumptions about what the family understands; describe the procedure in clear, simple terms and answer any questions. Families should be told before-hand the steps of withdrawal and whether or not it is planned/desired to remove the endotracheal tube (see FF#33). In addition, they should be counseled about the use of oxygen and medications for symptom control. Assure them that the patient's comfort is of primary concern. Explain that breathlessness may occur, but that it can be managed. Confirm that you will have medication available to manage any discomfort. Ensure they know that the patient will likely need to be kept asleep to control their symptoms and that involuntary moving or gasping does not reflect suffering if the patient is properly sedated or in a coma.

Explain how the family, clergy and others can be at the bedside before, during and after withdrawal. If asked, explain that they can show love and support through touch, wiping of the patient's forehead, holding a hand and talking to him or her.

### **Support the decision**

Even though a family is able to make a definite decision for ventilator withdrawal, such a decision is always emotionally charged. Families will constantly second-guess themselves, especially if the death appears to linger following ventilator withdrawal. Physician support, guidance and leadership is crucial, as the family will be looking to the physician to ensure them that they are "doing the right thing". Furthermore, it is common for families to have concerns that their decision constitutes euthanasia or assisted suicide—explicit counseling from a physician will be needed. Finally, support needs to continue following death during the bereavement period (see Fast Fact # 22).

### **References:**

Adapted from: Emanuel, LL, von Gunten, CF, Ferris, FF (eds.). "Module 11: Withholding and Withdrawing Therapy," *The EPEC Curriculum: Education for Physicians on End-of-life Care*. [www.EPEC.net](http://www.EPEC.net): The EPEC Project, 1999.

Principles and practice of withdrawing life-sustaining treatment in the ICU. Rubenfeld GD and Crawford SW, in *Managing death in the Intensive Care Unit*. Curtis JR and Rubenfeld GD (eds) Oxford University Press, 2001 pgs 127-147.

## FAST FACT AND CONCEPTS #36

### Calculating Opioid Dose Conversions

Robert Arnold and David E. Weissman

The need to change from one opioid to another, or from one route to another, is common. The published conversion tables provide a rough guide for making calculations. However, clinical judgement must always be used to arrive at a reasonable dose conversion. The following examples assume a change in drug or route at a time of stable pain control using equianalgesic doses. See Fast Fact #20 for information about dose escalation guidelines.

#### Opioid Equianalgesic Values for use with the following examples \*\*

**Morphine 10 mg parenteral = Morphine 30 mg oral = Hydromorphone 1.5 mg parenteral = Hydromorphone 7.5 mg oral .**

#### **Change route, keeping drug the same (e.g. oral to IV morphine)**

*Example: Change 90 mg q12 MS Contin to MS by IV continuous infusion*

- 1. Calculate the 24 hour current dose: 90mg q 12 = 180 mg MS/24 hours**
- 2. Look up equianalgesic ratio: 30 mg po MS = 10 mg IV MS**
- 3. Calculate new dose using ratios:  $180/30 \times 10 = 60$  mg IV MS/24 hours or 2.5 mg/hour infusion**

Change drug, keep the same route: (e.g. po morphine to po hydromorphone)

There is incomplete cross-tolerance between all different opioids, but the exact amount will differ, thus, equianalgesic tables are only approximations. Depending on age and prior side effects, most experts recommend starting a new opioid at 50% of the calculated equianalgesic dose.

*Example: Change 90 mg q 12 MS Contin to oral hydromorphone.*

1. Calculate the 24 hour current dose:  $90 \text{ Q12} \times 2 = 180$  mg po MS/24 hrs
2. Look up equianalgesic ratio: 30 mg po morphine = 7.5 mg po hydromorphone
3. Calculate new dose using ratios:  $180/30 \times 7.5 = 45$  mg oral hydromorphone/24 hours.
4. Reduce dose 50% for cross-tolerance:  $45 \times .5 = 22$  mg/24 hours = 4 mg q4h

#### **Changing drug and route (e.g. oral morphine to IV hydromorphone)**

Example: Change from 90 mg q12 MS Contin to IV hydromorphone as a continuous infusion.

1. Calculate the 24 hour current dose:  $90 \text{ Q12} \times 2 = 180$  mg po MS/24 hrs
- 2. Look up equianalgesic ratio of po to IV morphine: 30 mg po MS = 10 mg IV MS**
- 3. Calculate new dose using ratios:  $180/30 \times 10 = 60$  mg IV MS/24 hours**
- 4. Look up equianal. ratio of IV morphine to IV hydromorphone: 10 mg MS = 1.5 mg hydromorphone**
5. Calculate new dose using ratios:  $60/10 \times 1.5 = 9$  mg IV hydromorphone/24 hours
6. Reduce dose 50% for cross-tolerance:  $9 \times .5 = 4.5$  mg/24 hours = 0.2 mg IV continuous infusion

\*\* See AHCPH Guidelines for full Equianalgesic Table; See Fast Fact #2 for information on dose conversions using Transdermal Fentanyl.

#### **References:**

Jacox A, Carr DB, Payne R, et al. Management of Cancer Pain. Clinical Practice Guideline No. 9. AHCPH Publication No. 94-0592. Rockville, MD. Agency for Health Care Policy and Research, U.S. Department of Health and Human Services, Public Health Service, 1994. (page 54)

Gordon DB, Stevenson KK, Griffie, J, et al. Opioid equianalgesic calculations. J Pall Med 1999;2:209-218

**FAST FACT AND CONCEPTS #37**  
**END-OF-LIFE EDUCATION PROJECT**  
**PRURITUS**

**Charles von Gunten and Frank Ferris**

Pruritus (itching) is a common and often distressing symptom near the end of life. The itch sensation may arise from stimulation of the skin itch receptor via unmyelinated C fibers, or itch may arise as a central phenomenon without skin involvement (e.g. opioid induced pruritus). Although histamine causes pruritus, many patients with pruritus show no signs of histamine release. Besides histamine, serotonin, prostaglandins, kinins, proteases and physical stimuli have all been implicated as mediators of pruritus.

**Management**

Management of pruritus involves eliminating the cause when possible. Common causes include: Dermatological (dryness, wetness, irritation, eczema, psoriasis), Metabolic (hepatic failure, renal failure, hypothyroidism), Hem/Onc (iron deficiency, polycythemia, thrombocytosis, leukemia, lymphoma), Drugs (opioids, aspirin, drug reactions), Infection (scabies, lice, candida), Allergy (urticaria, contact dermatitis), and Psychogenic.

**Moisturizers:** Dryness (xerosis) is very common and may exacerbate other causes. The mainstay of treatment is skin hydration. Note: Most OTC preparations only have small amounts of moisturizer—they are mostly water. Serious dryness requires emollients and moisturizers (such as petroleum jelly) that patients find oily or greasy. Nevertheless, they may be applied after bathing, over damp skin, with a superficial covering.

**Cooling agents** (e.g. Calamine or Menthol in aqueous cream, 0.5%-2%) are mildly antipruritic. They may act as a counterirritant or anesthetic. A more direct way to anesthetize the skin is with the eutectic mixture of local anesthetics lidocaine and prilocaine (EMLA cream).

**Antihistamines** may be helpful in relieving itch when associated with histamine release. Morphine causes non-immune mediated histamine release from mast cells. Although there is little data, many report advantages of combining H1 and H2 receptor subtype antihistamines. These may have central effects as well as peripheral antihistaminic effects. Doxepin, a tricyclic antidepressant, is a very potent antihistamine and may help in more refractory cases, 10-30 mg po qhs.

**Topical steroids** may be helpful in the presence of skin inflammation. These may be best applied in ointment rather than cream formulations to alleviate dryness. Systemic steroids have been used in refractory cases.

**Other:** An old-fashioned but effective remedy is immersion in an oatmeal bath (Aveeno). More recent pharmacological treatments include cholestyramine for cholestatic pruritus, and in other selected patients, ondansetron, paroxetine or naloxone.

**Reference:**

Alan B. Fleisher, Jr and Jason R. Michaels. Pruritus. In: Principles & Practice of supportive Oncology. Eds: Ann Berger, Russell K. Portenoy, David E. Weissman. Lippincott-Raven Publishers Philadelphia 1998;245-250.

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Wilde MI, Markham A. Ondansetron: a review of its pharmacology and preliminary clinical findings in novel applications. Drugs 1996;52:773-794.

Zylicz Z, Smits C, Chem D and Krajnik M. Paroxetine for pruritus in advanced cancer. J Pain Symptom Manage 1998;16:121-124.

**FAST FACT AND CONCEPTS # 38**  
**END-OF-LIFE EDUCATION PROJECT**

**DISCUSSING HOSPICE**  
**Charles F. von Gunten, MD PhD FACP**

Hospice discussions with seriously ill patients should always take place in the context of the larger goals of care, using a step-wise approach (1)

**1. Establish the setting**

Ensure comfort and privacy; sit down next to the patient. Ask if family members or others should be present. Introduce the subject: *I'd like to talk with you about our overall goals for your care.*

**2. What does the patient understand?**

Ask an open-ended question to elicit patient understanding about their current health situation. It is important to get the patient talking--if the doctor is doing all the talking, it is unlikely that the rest of the conversation will go well.

Consider starting with phrases such as: *What do you understand about your current health situation? or What have the doctors told you about your condition?*

If the patient does not know/appreciate their current status this is time to review that information. An informed decision about hospice is only possible if the patient has a clear understanding of their illness and prognosis.

**3. What does the patient expect?**

Next, ask the patient to consider the future. *What do you expect in the future? or What goals do you have for the time you have left—what is important to you?* This step allows you to listen while the patient describes a real or imagined future. Most patients with advanced disease use this opening to voice their thoughts about dying—typically mentioning comfort, family, and home, as their goals of care. If there is a sharp discontinuity between what you expect and what the patient expects, this is the time to clarify. Listen carefully to the patient's responses; most patients have thought a lot about dying, they only need permission to talk about what they have been thinking. Setting up the conversation in this way permits the physician to respond with clarifying and confirming comments such as: *So what you're saying is, you want to be as independent as possible and stay out of the hospital. or What you've said is, you don't want to be a burden on your family.*

**4. Discuss Hospice Care**

Use language that the patient will understand, give information in small pieces. **Never say, "There's nothing more we can do".** "Nothing" is euphemistic and easily misinterpreted; to a patient "nothing" means abandonment. Summarize the patient's goals as part of your introducing a discussion of hospice care; *You've told me you want to be as independent and comfortable as possible. Hospice care is the best way I know to help you achieve those goals.* Listen carefully to the response; patients often have a distorted view of hospice care, others have never heard the term. Ask what the term means to them; patients frequently describe hospice as a *place* to go to die or what you do when you give up. Probe for previous experiences or how they developed their point of view. Respond by describing hospice as, *a program that helps the patient and family achieve the goals you've just described; it's a team of people that help meet the patient's and family's physical, psychological, social and spiritual needs.* Offer to ask someone from the hospice program to meet with them to give information.

Offer your recommendation, *From what you've told me, I would recommend that hospice care begin so that I can do the best possible job in meeting the goals we discussed today or I think it would be best if we got the hospice involved or I always ask the hospice to get involved for my patients at this stage of their illness.* Reinforce that entering hospice care does not mean that the patient can never return to the office or hospital for care, that the decision is revocable, and that you will continue to be their physician (see future Fast Fact on Hospice Regulations).

**5. Respond to emotions**

Strong emotions are common when discussing death. Typically the emotional response is brief. The most profound initial response a physician can make may be silence, providing a reassuring touch, and offering facial tissues. (see FastFact #29 Responding to emotions).

## **6. Establish a plan**

Summarize the plan, *I'll ask the hospice to come by to give information, then you and I can discuss it.*

### **Reference**

Emanuel LL, von Gunten CF, Ferris FD (eds). The EPEC Curriculum. 1999. The EPEC Project [www.epec.net](http://www.epec.net)

**FAST FACTS AND CONCEPTS #39**  
**END OF LIFE EDUCATION PROJECT**

**USING NALOXNE**

Colleen J. Dunwoody MS, RN and Robert Arnold MD

Naloxone (Narcan®), a semisynthetic opioid antagonist, is indicated for the complete or partial reversal of life-threatening CNS/respiratory depression induced by opioids. Naloxone is often inappropriately used in the hospital setting, administered as a full ampule (0.4 mg) in response to physiologically normal opioid-induced decrease in respiratory rate or mild sedation. This probably comes from application of principles of use in the Emergency Department to other settings. Note: it is normal to have a lower respiratory rate during sleep, especially on opioids. However, the hallmark of significant opioid-induced CNS depression requiring naloxone, is change in the level of consciousness.

Depending on the dose administered, naloxone administration to a patient physically dependent on opioids will cause the abrupt return of pain and can precipitate an Abstinence Syndrome, with symptoms ranging from mild anxiety, irritability and muscle aches to life-threatening tachycardia and hypertension. Once thought to be devoid of side effects, naloxone can cause cardiovascular collapse and pulmonary edema, probably through abrupt increase in sympathetic nervous system activity associated with opioid reversal.

**Key Teaching Points**

1. Review end-of-life goals; naloxone administration is not indicated for patients on opioids who are dying (see FF# 3 Syndrome of Imminent Death), as all dying patients will at some point have an altered mentation and respiratory changes. It may be necessary to write specific orders **not** to administer naloxone.

2. Patients should meet all of the following criteria before naloxone is administered:

a) Depressed mental status: difficult to arouse or unarousable (If the patient wakes to voice or light shake, the diagnosis is sleeping, not opioid overdose)

b) Shallow respirations or rate < 8 associated with evidence of inadequate ventilation (e.g. low oxygen saturation, hypotension). Note: some people breathe at 6-8 per minute when they sleep yet are well ventilated.

3. Stop opioid administration.

4. Dilute 0.4 mg naloxone (one ampule) with Normal Saline to a total volume of 10 ml (1 ml = 0.04 mg).

5. Remind the patient to breathe; though narcotized, patients report hearing concerned staff and being unable to open their eyes or respond. Reminders to “take a deep breath” are often followed.

6. Administer 1 ml IV (0.04mg) q1min until the patient is responsive. A typical response is noted after 2-4 mls with deeper breathing and greater level of arousal. Gradual naloxone administration should prevent acute opioid withdrawal.

7. If the patient does not respond to a total of 0.8 mg naloxone (2 amps), consider other causes of sedation and respiratory depression (e.g. benzodiazepines, CVA).

8. The duration of action of naloxone is considerably shorter than the duration of action of most short-acting opioids. A repeat dose of naloxone, or even a continuous naloxone infusion, may be needed.

9. Wait until there is sustained improvement in consciousness before restarting opioids at a lower dose.

Final note: check with your nursing staff—is there a hospital policy defining the appropriate use of naloxone? If so, review for appropriateness, if not, write one; see reference (McCaffery M and Pasero C) for recommended nursing protocol.

**References**

- Burke, D.F., Dunwoody, C.J.(1990) Naloxone: A Word of Caution. *Orthopaedic Nursing*, 9(4).pp.44-46.  
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**FAST FACT AND CONCEPTS #40**  
**END-OF-LIFE EDUCATIONA PROJECT**

**PRESSURE USLCKER MANAGEMENT: PREVENTION AND STAGING**  
**Frank Ferris, MD and Charles von Gunten, MD**

Pressure ulcers are a major problem in end-of-life care. Poor attention to skin care in the dying patient will result in pain, odor, swelling, reduced quality of life and increased care demands for family and other caregivers. Skin can withstand 30-60 minutes of poor perfusion, but not longer. Pressure ulcers result from ischemia, due to pressure closing the microarterioles, particularly at pressure points--heels, sacrum and elbows. Intrinsic risk factors for the ulcer development are limited mobility, conditions that reduce tissue oxygenation, age-related changes in skin and cachexia. Extrinsic factors are physical forces such as friction, moisture and shear.

Prevention of ulcers is the highest level of care; bedbound patients need to be turned regularly and/or they need a pressure-reducing surface. Skin should be protected from friction, moisture and shear. High-risk areas should have either a thin film or hydrocolloid dressings applied (see future FF; Ulcers Management).

Ulcer formation progresses in a step-wise fashion:

Stage I. The heralding lesion of skin ulceration is *non-blanchable erythema*.

Stage II. Partial-thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and looks like an abrasion or shallow crater or blister.

Stage III. Full thickness skin loss involving subcutaneous tissue. The ulcer may extend down to, but not through, the underlying fascia. The ulcer looks like a deep crater, with or without undermining of adjacent tissue.

Stage IV. The ulcer is deep enough to include necrosis and damage to underlying muscle, bone, and/or other supporting structures such as tendon or joint capsule. Undermining of adjacent skin and sinus tracts may also be present.

### **Pressure Reducing Surfaces**

There are 3 groups of support surfaces that have demonstrated effectiveness; some need to be ordered by the physician.

1. Air or water mattress overlays (e.g. Roho)— ideal for most patients to prevent pressure ulcers. Order for patients at risk for pressure ulcers.
2. Low-air-loss beds (e.g. Kenn-air, Dyna-Care, Sof-Care) can be used for high-risk patients, or patients with existing ulcers to prevent worsening and/or healing.
3. Air-fluidized beds (e.g. Clinatron, Fluid-air) are reserved for patients needing maximum pressure reduction and pressure relief. However, patients frequently describe them as overly confining (even “coffin-like”) and they are very expensive (e.g. Clinitron bed may lease for > \$100/day).

Note: Simple foam pads are often ineffective; if they are used, particularly in the home, they should be laid one on top of the other. If a hand is placed under the pads, there should be at least 1 inch of non-compressed foam between the hand and the patient. Never use round cushions (a.k.a. donuts); they occlude blood flow and don't prevent ulcers. Professional assessment and design is needed for special pressure reducing cushions (e.g. for wheelchairs).

### **References**

- Paul Walker. The pathophysiology and management of pressure ulcers. In: Topics in Palliative Care, Volume 3. Eds. Russell K. Portenoy and Eduardo Bruera. Oxford University Press 1998. Pp 253-270.
- Paul Walker. Update on pressure ulcers. Principles & Practice of Supportive Oncology Updates 2000;3(6):1-11.

**FAST FACT AND CONCEPTS #41**  
**END-OF-LIFE EDUCATIONA PROJECT**  
**PRESSURE ULCER MANAGEMENT II: DEBRIDEMENT AND DRESSINGS**  
**Charles von Gunten and Frank Ferris**

The first step in deciding how to manage pressure ulcers is an assessment of whether or not the wound is likely to heal. If the patient has a prognosis of months to years, adequate nutrition, and blood flow to the tissue, then healing is possible. If the patient has a prognosis of days to weeks, anorexia/cachexia, and/or the wound has inadequate perfusion, then symptom control alone is appropriate and uncomfortable/burdensome treatments are not appropriate.

### **Debridement**

Always provide adequate analgesia!! . Necrotic tissue must be removed for ulcer healing; surgical debridement is the fastest and most effective method when there is healthy surrounding tissue. Debridement gels (eg Hypergel, Santyl, Nu-gel) on the ulcer, under an occlusive dressing (such as DuoDerm), are available for ulcers that don't require surgery or when surgical debridement is incomplete. These products come with or without enzymes to encourage autolytic or enzymatic debridement. For minimally necrotic ulcers, occlusive dressings such as DuoDerm q week promote autolysis.

A commonly prescribed form of mechanical debridement is the use of saline, wet-dry dressings. This treatment actually retards healing by pulling off new epithelial cells as part of healthy granulation tissue; its use for the treatment of skin ulcers should be abandoned. Note: If the patient is close to dying, and/or the wound will never heal, then debridement should not be attempted.

### **Dressings**

We know that living tissue requires moisture for transport of oxygen and nutrients. A moist ulcer environment promotes the migration of fibroblasts and epithelial cells; growth factors are present in the serous exudate that speed healing. In contrast, a dry environment is conducive to necrosis and eschar. Ulcer healing is delayed if there is bacterial infection within the wound bed. Erythema, purulent exudate and fever are signs of infection. Cleansing and application of topical antibiotics may be sufficient for superficial infection with minimal surrounding erythema. Systemic antibiotics are indicated for deep/surrounding tissue infection, or if ulcer healing is delayed.

Cleanse wounds that are expected to heal with non-cytotoxic fluids (e.g. saline). Cytotoxic fluids (e.g. Betadine) will kill granulation tissue. **Clinical Pearl:** don't cleanse an ulcer with any fluid you wouldn't put in your eye if you want the ulcer to heal.

**There are 6 classes of dressings** distinguished by the wear time and whether you want to add or remove fluid in order to maintain the ideal moist, interactive ulcer-healing environment. A dry ulcer needs to have moisture added through a hypotonic gel (donates water). In a wet exudate, a hypertonic gel or foam is used to remove water.

1. Polyurethane foams (LYOfoam, Allevyn, Nu-Derm, Flexzan). Most absorptive. Used under a covering secondary dressing.
2. Alginates (Kaltostat, Sorbsan). Works to desiccate an overly wet wound. Prevents maceration of surrounding skin from excess fluid; is hemostatic and may reduce risk of infection
3. Hydrogels (IntraSite, Elasto-Gel, ClearSite, Aquasorb). Used for wounds with larger volumes of exudate. Require a secondary dressing to secure.
4. Hydrocolloid wafers (DuoDerm, Comfeel, Tegaserb, Restore). Self-adhesive. Promotes autolysis, angiogenesis and granulation. Remains in place for 5-7 days. Often used to "seal" a wound that is otherwise clean in order to promote healing. Can also be used to seal an underlying dressing in order to maintain a moist environment in which the wound can heal. Note: do not use an occlusive dressing if there is a substantial risk of infection.
5. Thin films (OpSite, Tegaderm) For skin at risk or Stage I pressure ulcers. Also to hold another type of absorbent dressing in place..
6. Cotton Gauze. Used to cover the primary dressing. Rarely the appropriate dressing for a significant skin ulcer. Note: Saline wet-to-dry dressings are only useful for mechanical debridement.

### **References**

Paul Walker. The pathophysiology and management of pressure ulcers. In: Topics in Palliative Care, Volume 3. Eds. Russell K. Portenoy and Eduardo Bruera. Oxford University Press 1998. Pp 253-270.  
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