Overview and Objectives:

- The broad objectives of this course are to provide trainees with an overview of the basic and clinical sciences underlying the professional care of dying patients, and to introduce them to the primary reference sources in the field of palliative medicine.

- The course will be taught in a small-group, discussion format, with faculty drawn from content-experts throughout the medical center. Discussions will combine analysis of the evidence base for a wide range of palliative care interventions with clinical case discussions. Cases will be drawn from the literature, faculty experience, and current clinical activities of the trainees themselves.

Responsibilities:

- Readings assigned to each session

Course Requirements:

- See individual session requirements

Attendance Policy:

- Students are expected to sign-in to each class (computer provided in suite lobby). If a problem is encountered with the sign-in system, please contact the course instructor(s) as well as Lauren Talotta (talottals@upmc.edu) immediately.

Evaluation:

- There will be a take home examination at the end of the course that will present a complex case for analysis based on the concepts covered in the course.

Required Textbook(s):


- These books are available at the Health Center Book Store.

The complete course syllabus will be available online on Blackboard https://courseweb.pitt.edu/webapps/login/

Academic Integrity:

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity (http://www.provost.pitt.edu/info/ai1.html). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but
is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

**Course Schedule**

**Session 1: Fundamentals of Hospice Care**

**At the conclusion of this lecture, the student will be able to:**

1. Discuss the major goals and concepts of the hospice and palliative approach to caring for patients with life-limiting illnesses.
2. Describe the condition of “total pain.”
3. Describe eligibility requirements for the Medicare Hospice Benefit.
4. Discuss the role of the physician as a member of the hospice and palliative care team.

**Required Reading(s):**


**Recommended Reading(s):**


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**Session 2: Basic Science of Pain**

**At the conclusion of this lecture, the student will be able to:**

1. Neuroanatomy/neurophysiology (opioid subtype receptors, pain fibers etc)
2. How is chronic pain different from acute pain? (central sensitization etc)

**Required Reading(s):**

Session 3: Pain Management: Physiology and Assessment

At the conclusion of this lecture, the student will be able to:

1. Pain Management: Physiology and Assessment
   a. Demonstrate techniques for obtaining a pain history
   b. Conduct appropriate physical exam
   c. Use appropriate pain scales, including special techniques for children and the elderly

2. Pain Management: Health service research
   a. Describe the prevalence of pain and its treatment in palliative care
   b. Describe the variations in treatment of pain based on age, ethnicity and gender

3. Pain management and addiction
   a. Define dependence, addiction and tolerance
   b. Describe a way to develop goals of therapy in patients with both addiction and pain disorders
   c. Describe a management strategy for patients with both addiction and pain disorders

Required Reading(s):
3. Doyle et al. Chapter 8.2.2

Recommended Reading(s):

Session 4: Prognostication (foretelling and foreseeing in Life-limiting illness)

At the conclusion of this lecture, the student will be able to:

1. Describe three common factors which influence prognosis across common illness
2. Describe the most common trajectories for cancer and non-cancer illnesses
3. Describe how to prognosticate in one common life limiting disease
4. Describe a method for discussing prognosis with patients and their families
5. Describe the data concerning how (a) physicians prognosticate and (b) discuss prognosis with patients
**Required Reading(s):**


Also Fast Facts:

1. Fast Fact and Concept #013: Determining Prognosis in Advanced Cancer

2. Fast Fact and Concept #030: Prognostication

3. Fast Fact and Concept #124: The Palliative Prognostic Score (PaP)

4. Fast Fact and Concept #125: The Palliative Performance Scale (PPS)

5. Fast Fact and Concept #141: Prognosis in End-Stage COPD

6. Fast Fact and Concept #143: Prognostication in Heart Failure

7. Fast Fact and Concept #150: Prognostication in Dementia

8. FAST FACT AND CONCEPT #179: CPR Survival in the Hospital Setting

9. Fast Fact and Concept #189: Prognosis in Decompensated Chronic Liver Failure

10. Fast Fact and Concept #191: Prognostication in Patients Receiving Dialysis

**Session 5: Non-opioid and Adjuvant Analgesics**

At the conclusion of this lecture, the student will be able to:

1. Describe the traditional pain classification system including the difference between nociceptive and neuropathic pain, as well as the problems with this system.

2. Describe the mechanisms of action, indications and side effects of NSAIDs and acetaminophen

3. Describe three uses for corticosteroids in pain management.

4. List the first line antidepressants, anticonvulsants and local anesthetics used in neuropathic pain management

5. Describe the therapeutic approach to bone pain

**Required Reading(s):**

1. Oxford Textbook of Palliative Medicine: 8.2.4 and 8.2.5 (pages 342-366)

**Recommended Reading(s):**


**Session 6: Non-Pain Symptoms I**

**At the conclusion of this lecture, the student will be able to:**

1. Know how to assess each of the common GI symptoms.

2. Identify pharmacologic and non-pharmacologic treatment strategies for each symptom.

3. Describe appropriate role of surgery and interventional management of SBO.

4. Counsel patients and families regarding anorexia in advanced disease caring for these patients.

**Required Reading(s):**

   a. 8.3.1. Mannix, KA. Palliation of nausea and vomiting.
   b. 8.3.3. Sykes, N. Constipation and diarrhea.
   c. 8.3.4. Pathophysiology and management of malignant bowel obstruction.

**Session 7: Pain Management: Use of Opioids Part I**

**At the conclusion of this lecture, the student will be able to:**

1. Describe the pharmacology and pharmacokinetics of the different opiate analgesics and how they differ

2. Describe the data supporting the use of the different opiates used in palliative care

3. Demonstrate skills in the use of alternate routes of administering analgesics when there is unacceptable pain relief with oral preparations

4. Use equivalency tables comparing the equianalgesic doses of commonly used analgesics

5. State the side effects of the analgesics which are commonly used to manage pain and techniques for alleviating these side effects

6. Describe how to use opiate in renal and liver failure

**Required Reading(s):**


**Recommended Reading(s):**


**Session 8: Non-Pain Symptoms II**

**At the conclusion of this lecture, the student will be able to:**

1. Know how to assess dyspnea.

2. Know the pharmacologic management of dyspnea.

3. Describe the role of oxygen in managing dyspnea.

4. Describe non-pharmacologic strategies to manage dyspnea.

5. Know how to assess oral symptoms and lesions.

6. Identify treatment strategies for oral lesions and dry mouth.

**Required Reading(s):**

   b. 8.12 DeConno, et al. Mouth care.

**Session 9: Providing Care in the Home**

**At the conclusion of this lecture, the student will be able to:**

1. Recognize role of hospice and home care services.
2. Know how to manage common physical symptoms in the home setting.

3. Know how to change medication routes and regimens in the home.

4. Recognize when care in the home is inadequate or unsafe.

**Required Reading(s):**
   a. 17. Palliative medicine in the home.

**Session 10: Pain Management: Use of Opioids Part 2**
At the conclusion of this lecture, the student will be able to:
1. Differentiate somatic pain from nerve-damage pain
2. Differentiate from baseline and breakthrough pain and identify specific, targeted treatments.
3. Describe how neuropathic pain differs from other pain syndrome
4. Describe an evidence based method for treating neuropathic pain syndromes using co-analgesics
5. Describe the theoretical justification for using methadone
6. Describe the unique pharmacokinetics of methadone and how to go from other opiates to equianalgesic doses of methadone

**Required Reading(s):**

**Recommended Reading(s):**
3. Lunn MPT, Hughes RAC. Duloxetine for treating painful neuropathy or chronic pain. [Systematic Review] Cochrane Pain, Palliative and Supportive Care Group Cochrane Database of Systematic Reviews. 4, 2011.
Session 11: Palliative Care Emergencies: Spinal Cord Compression, Hypercalcemia, Fracture, Seizure

At the conclusion of this lecture, the student will be able to:

1. Diagnose spinal cord compression based on clinical history and exam.
2. Describe appropriate management of spinal cord compression.
3. Know signs and symptoms and management strategies for hypercalcemia.
5. Describe acute management of seizures and status epilepticus.

Required Reading(s):


Session 12: Communication: Giving Bad News

At the conclusion of this lecture, the student will be able to:

1. Be able to define bad news and what makes it bad.
2. Identify barriers to giving bad news to patients and family.
3. Be able to list and explain the 6 steps for giving bad news.

Required Reading(s):


Session 13: Psychiatric Symptoms: Delirium and Dementia

At the conclusion of this lecture, the student will be able to:

1. Explain the differences between sadness, adjustment disorder, and depression.
2. Summarize the physical and psychological symptoms of major depression.

3. Compare and contrast representative classes of antidepressant medications and their use in management of depression.

4. List reversible causes of delirium commonly seen in patients with terminal illness.

5. Compare and contrast particular benzodiazepines and specific neuroleptic medications for the control of delirium.

6. Describe pharmacologic and non-pharmacologic approaches to the anxious patient.

7. Describe a treatment plan for patients with altered sleep-wake patterns.

**Required Reading(s):**

**Session 14: Interventional Pain Management Techniques**

**At the conclusion of this lecture, the student will be able to:**
1. Describe new, interventional methods to treat refractory pain to include:
   a. Intrathecal pump
   b. Celiac plexus blocks

**Required Reading(s):**
   a. 8.2.6. Anaesthetic techniques for pain management, Robert A. Swarm, Menelaos Karanikolas and Michael J. Cousins.


**Session 15: Psychiatric Symptoms: Anxiety and Depression**

**At the conclusion of this lecture, the student will be able to:**
1. Explain the differences between sadness, adjustment disorder, and depression.

2. Summarize the physical and psychological symptoms of major depression.

3. Compare and contrast representative classes of antidepressant medications and their use in management of depression.

4. List reversible causes of delirium commonly seen in patients with terminal illness.

5. Compare and contrast particular benzodiazepines and specific neuroleptic medications for the control of delirium.

6. Describe pharmacologic and non-pharmacologic approaches to the anxious patient.

7. Describe a treatment plan for patients with altered sleep-wake patterns.

**Required Reading(s):**


**Session 16: Non-invasive and Non-pharmacologic Modalities for Pain Management**

**At the conclusion of this lecture, the student will be able to:**

1. Learn about available cognitive and behavioral options for pain management.

2. Learn to do basic breathing, imagery, and progressive muscle relaxation techniques.

**Required Reading(s):**

   American Cancer Society, Atlanta, GA; 2004