Complex Palliative Care Pain Management Requires an Integrative Approach

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Objectives for this seminar

- Differentiate the complex components of pain
- Distinguish between nociceptive and neuropathic pain
- Outline the conventional approaches to pain management
- Describe the integrative approaches to pain management
What Is Palliative Care?

- Palliative care is specialized medical care for people living with serious illness. It focuses on providing relief from the symptoms and stress of a serious illness. The goal is to improve quality of life for both the patient and the family.

- Palliative care is provided by a team of palliative care doctors, nurses, social workers and others who work together with a patient’s other doctors to provide an extra layer of support. It is appropriate at any age and at any stage in a serious illness and can be provided along with curative treatment.
What is missing from this definition?

- Wholistic approach to care - spiritual, emotional, physical, social, cultural.
- Healing modalities
- Collaborative
- Goals of care, patient centeredness, values and preferences of patient, shared decision-making.
Palliative care improves the quality of life of patients and their families facing the problems associated with serious or life-threatening illness (and its treatment), through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual. It assesses and treats pain and other symptoms comprehensively using pharmacological and non-pharmacological treatments.
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Levels of Palliative Care

- Primary palliative care – competence in palliative care for all clinicians

- Secondary palliative care – specialty care in palliative medicine including:
  - Communication with challenging situations, patients, families, clinician collaboration
  - Difficult symptom control
  - Plan of care including end of life care, optimal management of symptoms of chronic serious illness, etc.
Demand for palliative care: What patients and families want from the healthcare system

- Pain and symptom control
- Avoid inappropriate prolongation of the dying process
- Achieve a sense of control
- Relieve burdens on family
- Strengthen relationships with loved ones

Singer et al, *JAMA* 1999
"You’ve got six months, but with aggressive treatment we can help make that seem much longer."
Inverse Association Between Cost and Quality

Not meeting their needs is expensive.

Integrative Palliative Care

- Well being and quality of care
- Empowerment and patient centered; relationship centered
- Using modalities that are in keeping with patient values and preferences
- Whole person care
- Avoiding poly-pharmacy: medications and supplements
- Attentiveness to cultural traditions, beliefs, lifestyle, internet information, advice from community, friends and family.
- Use of interdisciplinary team not just the conventional clinical team
“There’s no easy way I can tell you this, so I’m sending you to someone who can.”
Breath Work

Focus on long exhalation, and natural inhalation (like in pulmonary rehab)

Activation of parasympathetic nervous system for relaxation, with hormonal milieu for relaxation as well.
Exploring Pain with Story

- **Tell me the story about your pain. Help me understand your pain and how you are responding to it.**
- **What is important and meaningful to you right now?**
- **What worries or concerns you right now and in the future?**
- **What are you hoping for right now?**
- **By listening intently to the answers and the story, the health professional explores possibility, connectedness, hope, and what is getting in the way of hope.**

Presence
Pause
Breath
Shared presence

Shared decision-making
Namaste - Respect
Quality of Life Model

Adapted from Ferrell et al., 1991

Physical
- Functional Ability
- Strength/Fatigue
- Sleep & Rest
- Nausea
- Appetite
- Constipation
- Pain

Psychological
- Anxiety
- Depression
- Enjoyment/Leisure
- Pain Distress
- Happiness
- Fear
- Cognition/Attention

Social
- Financial Burden
- Caregiver Burden
- Roles and Relationships
- Affection/Sexual Function
- Appearance

Spiritual
- Hope
- Suffering
- Meaning of Pain
- Religiosity
- Transcendence

Adapted from Ferrell et al., 1991
Integrative Medicine Principles of Pain Management

- Assess for and treat both nociceptive and neuropathic pain and all modalities of treatment attempted or desired.
- Assess for different kinds of pain, in different locations, and treat them all.
- Assess for spiritual and emotional pain
- Assess for anxiety, depression and PTSD
- Elicit the patient’s story, values and preferences.
- Elicit story of the pain and responses to it.
Dame Cicely Saunders

Concept of Total Pain

1918 Born in UK
1944 Graduated as nurse
1945 Volunteer nurse in hospice
1957 Graduated as physician
1958 Scholarship for research of pain in terminally ill
1967 Founded St. Christopher’s Hospice
34 years as medical director
2005 Died at St Christopher’s Hospice
Pain

- **Pain is not simple** and has many components and any one component can exacerbate the other. Reason multidisciplinary approach is so important. Unique path of healing for each person.

- **No objective scales** to measure it.

- **Pain** is due to:
  - **Stimulus** causing pain
  - **Perception** of pain which can be modulated
  - **Expression** of pain affected by mood, beliefs, culture, cognitive state.
**Numerical rating scale:**
Used for adults and children 10 years old or older

<table>
<thead>
<tr>
<th>Rating</th>
<th>Pain Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No Pain</td>
</tr>
<tr>
<td>1 – 3</td>
<td>Mild Pain (nagging, annoying, interfering little with <a href="#">ADLs</a>)</td>
</tr>
<tr>
<td>4 – 6</td>
<td>Moderate Pain (interferes significantly with ADLs)</td>
</tr>
<tr>
<td>7 – 10</td>
<td>Severe Pain (disabling; unable to perform ADLs)</td>
</tr>
</tbody>
</table>
Types of Pain

- **Nociceptive pain** – direct damage to nerve fiber. Nervous system is functioning properly. Pain perception generally corresponds with stimulus intensity.
- In chronic pain, perception can persist even when stimulus is gone or reduced.
- Nociceptors are located in the skin, viscera, blood vessels, bones, joints, teeth, muscle.
- Involves transduction, transmission, perception, and modulation.

- Superficial somatic pain: cuts, burns
- Deep somatic pain: arthritis, tendonitis, myofascial pain
- Visceral pain: colic, appendicitis, bladder distention, ulcer
- Cancer can cause any of this pain
Types of Pain

- **Neuropathic pain** – nervous system is injured or impaired. Pain serves no purpose. Often disproportionate to the stimulus, or there is no stimulus. Alteration to perception of pain.

- Trauma: phantom limb pain, spinal cord injury
- Inflammation: autoimmune diseases
- Metabolic diseases: diabetes
- Infections: herpes zoster
- Tumors: tumor injuring nerves
- Toxins: chemotherapy and alcohol
- Primary neurologic diseases: MS, post-stroke pain
- Cancer pain
Understanding Pain

- In palliative care, acute pain, ongoing pain from tissue destruction makes chronic pain much more complex.

- Chronic pain alone does best with active, wholistic interventions rather than medication or surgery alone.

- https://www.youtube.com/watch?v=C_3phB93rvI
Assessment of Pain

Patient History

- Characteristics of pain
- Management strategies
- Relevant medical history including medications.
- Relevant family history
- Psychosocial history
- Impact of the pain on patient’s life: functional status
- Patient’s expectations and goals
- Touch and the physical exam.
Current Conventional Pain Management
WHO ladder

- Step 1: Non opioids +/- adjuvant
- Step 2: Weak opioid + non opioid +/- adjuvant
- Step 3: Strong upload + non opioid +/- adjuvant

Treatment of Cancer Pain

Freedom from cancer pain

- Interventional
- Blocks (somatic, sympathetic)
- Spinal medications
- Spinal cord stimulator
- Surgical

Pain persisting or increasing

- Opioid for moderate to severe pain
  ± Non-opioid
  ± Adjuvant

Pain persisting or increasing

- Opioid for mild to moderate pain
  ± Non-opioid
  ± Adjuvant

Pain persisting or increasing

- Non-opioid
  ± Adjuvant

Pain
CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016
Deborah Dowell, MD, MPH; Tamara M. Haegerich, PhD; Roger Chou, MD

- JAMA. Published online March 15, 2016.
- Geared toward primary care clinicians
- Chronic pain outside of palliative care, cancer care, and end of life care.
- Opioids: limited effectiveness, side effects, risk of opioid use disorder, and overdose.
# Opioid Dosing

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Dosing</th>
<th>Issues with this medication</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>PO to parenteral is 3:1</td>
<td>Needs good renal function</td>
<td>Favored drug for hepatic dysfunction</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Oxycodone to morphine is 2:3 po</td>
<td>Needs good renal function</td>
<td></td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Patch starting at 12 mcg/hr. 12 mcg/hr patch roughly equivalent to 30 mg of morphine in 24 hours</td>
<td>Not affected by decreased renal or hepatic metabolism</td>
<td>Don’t use patch in patients without enough SQ fat. Lipophilic. Can cross buccal mucosa in immediate release form.</td>
</tr>
<tr>
<td>Hydromorphone (Dilaudid)</td>
<td>PO to parenteral 5:1. Morphine po to hydromorphone po 4:1</td>
<td>Less affected by decreased renal metabolism</td>
<td></td>
</tr>
</tbody>
</table>
# Opioid adverse effects

<table>
<thead>
<tr>
<th>Common</th>
<th>Uncommon</th>
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<tbody>
<tr>
<td>Constipation</td>
<td>Bad dreams/hallucinations</td>
</tr>
<tr>
<td>Dry mouth</td>
<td>Dysphoria/delirium</td>
</tr>
<tr>
<td>Nausea/vomiting</td>
<td>Myoclonus/seizures</td>
</tr>
<tr>
<td>Sedation</td>
<td>Pruritus/ urticaria</td>
</tr>
<tr>
<td>Sweats</td>
<td>Respiratory depression</td>
</tr>
<tr>
<td></td>
<td>Urinary retention</td>
</tr>
</tbody>
</table>

Overdose, depression, addiction, increased pain
Managing adverse effects from opioids – with more drugs

- **Pruritus, urticaria**
  - Long acting, non-sedating anti-histamines

- **Constipation**
  - Never give opioids without a stool softener/ laxative combination

- **Nausea/vomiting**
  - Anti-emetics such as dopamine blocking agents (prochlorperazine, haloperidol, metoclopramide)

- **Sedation**
  - Often disappears in a few days as tolerance occurs
  - Change opioid or give stimulant (methylphenidate)
  - Reduce dose; use long acting preparation to reduce bolus effect
Managing adverse effects from opioids – with more drugs

- **Delirium**
  - Decrease dose if recently increased
  - Can be caused by poorly controlled pain; but do not increase dose of opioid until assess and treat delirium.

- **Respiratory depression**
  - Need careful titration of opioids and ongoing assessment
  - Naloxone (.4mg in 10 ml of water): short acting and titrate to effect rather than completely reversing analgesia
  - Occurs more frequently in opioid naïve patients
  - Monitor respiratory status closely in first 24 hrs
Adjuvant medications

- Anti-epileptic drugs
  - Gabapentin
  - Uses: neuropathic pain

- Anti-depressants
  - Neuropathic pain and depression/anxiety

- Many others
Cannabinoids for Pain

- Class of drugs
- Extensive history in pain management
- We have extensive endogenous cannabinoid receptors.
- Alters perception and interpretation of pain; one becomes distanced from the pain
- Due to complex reasons, removed from US Pharmacopoeia in 1942, Schedule 1 in 1970 and reintroduced for medical treatment in 1990’s.

www.medicalmarijuana.procon.org 29 states and D.C. legalize use of medical marijuana; some states only CBD is legal (17 states).

- Analgesic cannabinoids are primarily THC and cannabidiol (CBD)
Cannabinoids for pain

- Few receptors in brain stem with no respiratory depression.
- Minimal toxicity and no risk of lethal overdose
- No end organ failure
- Mild and short lived withdrawal effect
- Some people do develop dependence
- Smoking only cannabis does not increase risk of COPD.
Cannabinioids for pain

- Best researched clinical indications for pain:
  - Neuropathic pain (most researched) ex. HIV neuropathy
  - Malignant pain
  - Chronic pain syndromes; multiple pain syndromes
  - Acute pain
  - Chronic upper motor neuron syndrome
  - Multiple sclerosis

- Cannabinioids are anti-inflammatory

- Caution in patients with history of psychosis or family history. Caution with adolescents. Caution while driving when cannabinoids are initiated, or if THC in prep.

Adjuvant Integrative Therapies for Pain Management

- Psychological approaches
  - Cognitive Behavioral therapy, biofeedback, imagery, hypnosis, relaxation.

- Massage

- Acupuncture

- Applied heat or cold

- Movement - gentle

- Cannabis; capsaicin cream
Non-pharmacological Methods for Pain


- Safe, effective, evidence based, risk low, few adverse effects

- www.nonpharmpaincare.org  December 15, 2017
Anxiety and Depression

- Assessment – active listening, questions
- Treatment depends on life expectancy and function
- Movement and movement therapies
- Connection with others
- Life review and interventions to foster meaning-making
- Differentiating grief and loss from depression
- Medications if needed
- Cognitive behavioral therapies
Anxiety and Depression

- Assess possible cause of anxiety and treat any underlying cause such as pain, dyspnea, need for reassurance, etc.
- Spiritual care
- Emotional support
- Music, art therapies
- Guided imagery
- Breathwork
- Acupuncture
Grief, sadness and loss are not Depression
Differentiating Grief from Depression

- Many similar symptoms: sadness, sleeping difficulty, loss of appetite
- Depression: anhedonia; generalized state with no particular focus, suicidal ideation.
- Grief: sadness very focused on loss.
- Depression and suicidality can arise from poorly controlled symptoms, or inability to express grief and find support.
Finger holds for coping with strong emotions

- www.capacitar.org
- emergency tool kit in 20 languages
- Hold finger for 2-5 minutes
- Breathe in sense of harmony
- Breathe out challenging emotion.
- Can do hold on another
Eliciting and listening to another’s story for meaning

Significantly increased sense of peace and mitigated depression and anxiety.

Breath Work

Focus on long exhalation, and natural inhalation (like in pulmonary rehab)

Activates the parasympathetic nervous system.

Healing, relaxation, changes hormonal and nervous system milieu.
Concept of Sensory Substitution
(Michelle Accardi-Ravid, PhD. Loesser Pain Conference 10-28-17)

Engaging the sensory system in favor of anything other than pain.

- Visual – Movie, art, images on a screen
- Auditory – Music
- Tactile – Massage, cold (ice), heat (capsaicin, heating pad, warm oils with massage)
- Taste – Pleasurable tastes
- Olfactory – Aromatherapy
- Kinesthetic – movement, progressive relaxation, breath
Less Pain, Fewer Pills: Avoid the Dangers of Opioid Painkillers and Gain Control over Chronic Pain

by Beth Darnall

2014
Massage Therapy

- ↓pain, anxiety, depression; ↑restful sleep
- In one study of 1290 cancer patients, it reduced symptoms of pain, fatigue, anxiety, and nausea by 50%

[www.nonpharmpaincare.org](http://www.nonpharmpaincare.org) December 15, 2017


Music Therapy

- Encompasses many modalities from passive to active, from enjoyable music to prescriptive music.

- Goals of therapy:
  - Relaxation, improve mood, QOL
  - Decrease anxiety, pain, insomnia
  - Not enough evidence: depression, fatigue


Cochrane review: 2011, 2010 (combined music medicine with music therapy due to small number of studies)
Hypnotherapy and Guided Imagery

- Reduce anxiety, pain and stress, and promote relaxation.


- Guided imagery especially paired with evocative music can facilitate improved coping, well-being, and acceptance of death.


- Hypnosis can decrease nausea, vomiting, and pain in cancer patients receiving chemotherapy.

Movement Therapies

- Tai chi
- Modified Yoga
- Dance therapy
- Other modalities such as Alexander Technique, Feldenkrais, etc.

- [www.capacitar.org](http://www.capacitar.org) emergency tool kit
- [www.nonpharmpaincare.org](http://www.nonpharmpaincare.org) December 15, 2017
Acupuncture

- Relieves pain, anxiety, nausea, fatigue
- Safe, with few adverse effects. Risk low.
- Evidence based and recommended as first line treatment for many chronic and acute pain syndromes. **Effective for cancer pain, both nociceptive and neuropathic.**
- In one study of patients presenting to ER for pain, it was superior in efficacy to morphine.
- Need for certified practitioner with appropriate training.
- Recommended by American College of Physicians
- [www.nonpharmpaincare.org](http://www.nonpharmpaincare.org)  December 15, 2017
Spiritual Pain

- Pain around meaning and purpose; existential questions
- Emotional support - empathy
- Sit with the patient
- Active listening
- Touch
- Spiritual guidance - chaplain referral
Nonpharmacologic ways to help someone in palliative care and lessen total pain

Connection—being with those who matter to us

Breath work, presence, gentle movement

Music; silence; prayer

Massage therapy/ touch/ Aromatherapy

Energy therapies/acupuncture

Pet therapy

Story telling and Story listening; Life or narrative review

Ceremonies, beauty, love, grief and sadness
Although the world is full of suffering, it is also full of the overcoming of it.

Helen Keller
Optimism, 1903
Thank you for listening!
Questions??