What is New in Palliative Care

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Objectives

- Review the concept of palliative care, of suffering & of total pain
- Share standardized assessment tools
- Discuss the new approaches in the management for neuropathic pain
- Share other new technologies and upcoming new medications to manage certain symptoms (if we have time.....)
Your Objectives?

- 
- 
-
What is Palliative Care?
What is Palliative Care?

- It aims to **relieve suffering** and improve the **quality of living and dying** of patients living with a life threatening illness and their family.
- It address physical, psychological, social, spiritual and practical issues associated with expectations, needs, hopes and fears.
- It constitutes active care.
- It applies to all ages.

CHPCA 2002
What is Palliative Care?
Use of standardized Assessment tools

PPS: Palliative Performance Scale

ESAS: Edmonton Symptom Assessment Scale
PPSv2

- Measurement of performance status in palliative care
- Assessment of patient need
- Progression of condition
- Monitoring of progressive decline
# Palliative Performance Scale (PPSv2)

**version 2**

<table>
<thead>
<tr>
<th>PPS Level</th>
<th>Ambulation</th>
<th>Activity &amp; Evidence of Disease</th>
<th>Self-Care</th>
<th>Intake</th>
<th>Conscious Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Full</td>
<td>Normal activity &amp; work</td>
<td>Full</td>
<td>Normal</td>
<td>Full</td>
</tr>
<tr>
<td>90%</td>
<td>Full</td>
<td>No evidence of disease</td>
<td>Full</td>
<td>Normal</td>
<td>Full</td>
</tr>
<tr>
<td>80%</td>
<td>Full</td>
<td>Normal activity &amp; work</td>
<td>Full</td>
<td>Normal</td>
<td>Full</td>
</tr>
<tr>
<td>70%</td>
<td>Reduced</td>
<td>Some evidence of disease</td>
<td>Full</td>
<td>Normal</td>
<td>Full</td>
</tr>
<tr>
<td>60%</td>
<td>Reduced</td>
<td>Unable normal job/work</td>
<td>Full</td>
<td>Normal</td>
<td>Full or Confusion</td>
</tr>
<tr>
<td>50%</td>
<td>Mainly Sit/Lie</td>
<td>Unable to do any work</td>
<td>Occasional assistance necessary</td>
<td>Normal or reduced</td>
<td>Full or Confusion</td>
</tr>
<tr>
<td>40%</td>
<td>Mainly in Bed</td>
<td>Unable to do most activity</td>
<td>Mainly assistance</td>
<td>Normal or reduced</td>
<td>Full or Drowsy +/- Confusion</td>
</tr>
<tr>
<td>30%</td>
<td>Totally Bed Bound</td>
<td>Unable to do any activity Extensive disease</td>
<td>Total Care</td>
<td>Normal or reduced</td>
<td>Full or Drowsy +/- Confusion</td>
</tr>
<tr>
<td>20%</td>
<td>Totally Bed Bound</td>
<td>Unable to do any activity Extensive disease</td>
<td>Total Care</td>
<td>Minimal to sips</td>
<td>Full or Drowsy +/- Confusion</td>
</tr>
<tr>
<td>10%</td>
<td>Totally Bed Bound</td>
<td>Unable to do any activity Extensive disease</td>
<td>Total Care</td>
<td>Mouth care only</td>
<td>Drowsy or Coma +/- Confusion</td>
</tr>
<tr>
<td>0%</td>
<td>Death</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Instructions for Use of PPS (see also definition of terms)**

1. PPS scores are determined by reading horizontally at each level to find a ‘best fit’ for the patient which is then assigned as the PPS% score.

2. Begin at the left column and read downwards until the appropriate ambulation level is reached, then read across to the next column and downwards again until the activity/evidence of disease is located. These steps are repeated until all five columns are covered before assigning the actual PPS for that patient. In this way, ‘leftward’ columns (columns to the left of any specific column) are ‘stronger’ determinants and generally take precedence over others.

   - **Example 1:** A patient who spends the majority of the day sitting or lying down due to fatigue from advanced disease and requires considerable assistance to walk even for short distances but who is otherwise fully conscious would be scored at PPS 80%.

   - **Example 2:** A patient who has become paralyzed and quadriplegic requiring total care would be PPS 30%. Although this patient may be in a wheelchair (and perhaps seems initially to be at 50%), the score is 30% because he or she would be otherwise totally bed bound due to the disease or complication if it were not for caregivers providing total care including transfer. The patient may have normal intake and full conscious level.

   - **Example 3:** However, if the patient in example 2 was paraplegic and bed bound but still able to do some self-care such as feed themselves, then the PPS would be higher at 40% or 50% since he or she is not total care.

3. PPS scores are in 10% increments only. Sometimes, there are several columns easily placed at one level but one or two which seem better at a higher or lower level. One then needs to make a ‘best fit’ decision. Choosing a ‘half-fit’ value of PPS 45%, for example, is not correct. The combination of clinical judgment and ‘leftward precedence’ is used to determine whether 40% or 50% is the more accurate score for that patient.

4. PPS may be used for several purposes. First, it is an excellent communication tool for quickly describing a patient’s current functional level. Second, it may have value in criteria for workload assessment or other measurements and comparisons. Finally, it appears to have prognostic value.

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Palliative Performance Scale (PPSv2)

- Phases of disease progression
  - 70-100% PPS = stable phase
  - 40-60% PPS = transitional phase
  - 0-30% PPS = end of life phase
When does palliative care start?
ESAS

- A validated, reliable instrument
- Measures 9 different symptoms
- **ONLY** a screening tool
- Is **one part** of a holistic clinical assessment
Edmonton Symptom Assessment Scale (ESAS)

Date of Completion: _____________  Time: _______  Patient Name: ________________________

Please circle the number that best describes:

No pain
---
Worst possible pain

Not tired
---
Worst possible tiredness

Not nauseated
---
Worst possible nausea

Not depressed
---
Worst possible depression

Not anxious
---
Worst possible anxiety

Not drowsy
---
Worst possible drowsiness

Best appetite
---
Worst possible appetite

Best feeling of well being
---
Worst possible feeling of well being

No shortness of breath
---
Worst possible shortness of breath

Other problem
---

ESAS completed by:
- Patient
- Health professional
- Family
- Assisted by family or health professional
Nine(9) Common Symptoms

<table>
<thead>
<tr>
<th>Pain</th>
<th>drowsiness</th>
<th>Tiredness **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea</td>
<td>Appetite</td>
<td>Wellbeing **</td>
</tr>
<tr>
<td>Shortness of Breath</td>
<td>Depression**</td>
<td>Anxiety**</td>
</tr>
</tbody>
</table>

Those symptoms with an asterisk are subjective and can only be assessed by the person. The remainder of symptoms can be assessed by the caregiver or nurse as objectively as possible.
How to make it work?

- ESAS = a **screening** tool only
- Further assessment needed - symptom algorithms
Algorithms

- A step by step procedure to solving a problem and accomplishing the appropriate outcome
- To initiate a care plan according to the results of ESAS or other validated tools

Algorithms

- Standard format (bilingual)
- 6 symptom algorithms developed
  - Pain
  - Nausea /vomiting
  - Appetite/Anorexia/Cachexia
  - Dyspnea
  - Drowsiness
  - Delirium *

[Image 36x36 to 587x756]
Let's talk about pain
Suffering

- Suffering occurs when there is a perceived threat to the integrity or continuing existence of the person
- It is individual in its origins and expressions
- It is intensely private

Cassell E.J. NEJM 1984
Total Suffering
How do we recognize it?

- Patients use the terms “suffering” or “anguished”
- Symptoms that do not respond to usually successful treatments
- Sense of emptiness, hopelessness, meaninglessness

*Michael Kearney. Mortally Wounded*
Total pain = Suffering

(Kearney 1994)
Total Pain = Suffering

- physical
- emotional
- social
- spiritual
**Total Pain = Suffering**

- **Physical**
  - Disease management
  - Psychological

- **Emotional**
  - Loss/Grief

- **Social**
  - Practical

- **Spiritual**
  - End of life issues
Spiritual Pain

- **Combination of:**
  - Awareness of death
  - Loss of relationship
  - Loss of self
- **Loss of purpose + Loss of control**
  - Life affirming and transcending purpose, internal sense of control

Millspaugh 2005
“Soul Pain”

Soul pain is the experience of an individual who has become disconnected and alienated from the deepest and most fundamental aspects of himself or herself.

Michael Kearney. Mortally Wounded
Pain: A Multidimensional Experience

Pain is whatever the experiencing person says it is, existing whenever he (or she) says it does.”

Margo McCaffery
Specificity Theory of Pain

Stimulation of pain receptors/nerve endings (e.g. with injury/tissue damage) causes pain messages to be sent to the brain via the spinal cord

Does this fully explain pain???
Pain Definition

Pain is a subjective experience. It is an unpleasant sensation, experienced both physically, and emotionally. It may be triggered by a physical stimulus but the pain experienced is modulated by a variety of factors.

MacDonald 2005
Pain control is possible in 80% of patients by applying simple methods of assessment and management using the World Health Organization's approach.
WHO Pain Ladder (2008)

1 Mild
Non-Opioid
- Acetaminophen
- ASA
- NSAIDs/ COXIB
± Adjuvants

2 Moderate
“Weak” Opioid
- Acetaminophen + Codeine
- Acetaminophen + Oxycodone
- Tramadol
± NSAIDs
± Adjuvants

3 Severe
“Strong” Opioid
- Morphine
- Hydromorphone
- Methadone
- Fentanyl
- Oxycodone
± Acetaminophen
± NSAIDs
± Adjuvants
Nociceptive Pain

- Transmission along normal nerves
- Direct stimulation of intact nociceptors
- Examples:
  - Somatic: bone, muscle, soft tissue
  - Visceral
Neuropathic Pain

‘Pain caused by a lesion of the peripheral or central nervous system (or both) manifesting with sensory symptoms & signs”

- Backonja 2003

caused by injury or compression, or infiltration of a nerve (chemical or mechanical lesions)

E.g. post herpetic neuralgia or sciatic pain
Significance of NP in Cancer Patients

- 2nd *commonest* pain syndrome
- Pain *often precedes neurological deficit*
- *Commonest ‘uncontrolled’ pain*
Causes of NP in Cancer Patients

Study N=593 (Grond 1999)

- 72% Tumour
- 12% Treatment
- 4% Paraneoplastic
- 9% not cancer related
- 3% unknown
Pain Assessment is essential
New Pharmacological Approaches/Methods for the Management of Neuropathic Pain

- Methadone
- Ketamine
- Lidocaine
- Epidural access
Methadone

- A synthetic agent that is 10 times more potent than morphine
- μ receptor agonist
- NMDA antagonist (N-Methyl-D-Aspartate)
- Known efficiency
- No active metabolites
- Good alternative for true allergies
Methadone

- Oral bioavailability is 84%
- $\frac{1}{2}$ life = 10-72 hours
- Duration of analgesia: 6–12 hours
- Proteinic binding: 60-90%

MD require a special license
Methadone pharmacokinetic

- **Dose administered**

  A - med to tissues

  B - med available for analgesia

  Med. in blood stream
  ↓
  analgesia

  Med. eliminated
Methadone pharmacokinetic

Dose administered

Med. being stocked

Med. in blood stream

Med. eliminated

C - full reservoir

D - ↑ dose for analgesia

E - steady state - acts as sustained release

analgesia
Ketamine

Indications:

- neuropathic pain, resistant to regular approaches or intolerant to side effects

Should only be initiated by a Consultant in Palliative Medicine
Ketamine

Properties:

- General anesthetic agent
- NMDA antagonist \( (\text{N-Methyl-D-Aspartate}) \)
- Sub-cutaneously via continuous infusion at sub anaesthetic doses or orally
- Reduces the opioid requirement and increases the analgesia
Ketamine

Adverse effects
- Vivid dreams, hallucinations, excessive salivation/secretions, sedation, psychosis (rare)

Contraindications
- Intracranial hypertension and seizures (absolute)
- Hypertension, cardiac failure and previous CVA (relative)

Ketamine is commonly given with midazolam or haloperidol to reduce these effects.
Ketamine

Nursing implications

1. Qshift/day check on infusion for turbidity (clouding).
2. Qshift/day check the needle site for inflammation.
3. Qshift/day check vital signs.
4. Qshift/day pain assessment (ESAS).
5. Qshift/day check for side effects.
Lidocaine Infusions

- Na Channel blocker
  - Reduces the response from irritable nerves
- Used in the treatment of neuropathic pain
- Continuous intravenous infusion thru a pump
Nursing Assessment

Assess every shift

- Numbness and tingling in the fingers and toes
- Numbness or unusual sensations around the mouth area
- Sudden ringing in the ears
- Any new onset of dizziness
- Any new onset of tremors
- Any new onset of nausea and vomiting
Nursing Assessment

- Blood pressure, pulse and respiratory rate q shift/day
- Vital signs are to be taken q 4h if symptomatic or there is any increase in lidocaine dose
Notify physician

- RR less than 10 per minute
- Pulse less than 40 per minute
- Increased drowsiness
- New onset of confusion
- New onset of twitching
Method/Route of administration

Epidural lines
Epidurals

- An intraspinal/epidural catheter lies within the **epidural space** which is between the dura matter and the vertebral column.
- It is used for the continuous infusion of medications for pain control
Epidural Lines

- Why?
  - Significant reduction in the opioid dose requirement
Nursing Assessment

Assess every 4 hours for:

- **Drainage** from insertion site (palpate insertion site)
- Condition of insertion site
- Catheter is anchored
- **CADD** is infusing properly
- Verify that connections are secure
- Observe for signs of **infections** or catheter dislodgement
Drugs

- 0.125–0.25% bupivacaine, has been demonstrated to increase analgesic effect without increasing toxicity.
- Hydromorphone
- Morphine
New Procedure for the Management of certain Symptoms

PleurX catheter
Pleurex

- Used in the treatment of malignant pleural effusion
- MPE is an indicator of advanced disease and poor prognosis
- 50% of lung cancer pts have MPE
- 40% of breast cancer pts have MPE
Pleurex

- Indwelling pleural catheter
- 15.5 F fenestrated silicone catheter
- Polyester cuff
- Safety valve
- Inserted as an outpatient
- Intermittent drainage at home is possible
Treatment Options for MPE

- Symptomatic management
- Chest tube insertion & drainage
- Thoracentesis

- Chemical pleurodesis

- Indwelling PleurX Catheter
- Pleuroperitoneal shunt
- Pleurectomy
Pleurodesis: The Issues

- Complications
  - Empyema
  - Pain
  - Acute Respiratory Distress Syndrome
  - Cardiac events

- Hospitalization
  - Required for insertion of chest tube & pleurodesis
  - Done by specialty services (thoracics / respirology)
  - **Lengthy hospitalization** for:
    - Immune suppressed population
    - Patients with a limited life span
The PleurX Catheter

- Catheter designed for long term drainage of MPE
- Fluid drained intermittently by an RN via a vacuum bottle and drainage set
Expected Outcomes

- Patient managed at home
- ↓ in symptoms
- ↓ in drainage over time
  - If < 50 ml on 3 consecutive drains home care RN to notify program
  - Patient booked for follow up for catheter removal
- ↓ hospitalization time
- ↑ patient / family satisfaction
- ↑ health care provider satisfaction
Nursing Alerts

- The product contains natural rubber latex that may cause **allergic reactions**
- **Sterile technique** should be used for drainage and changing the dressing
- Use **rubber shod instruments** when handling the catheter
- An upper limit on the volume of fluid to be drained should be determined by the physician
Nursing Assessment

- Complete **chest assessment**
- Physical status
- Pain assessment **prior, during, and post drainage**
- Frequency of drainage is based on the individual and may occur 3 times a week (as per **medical order**)

Nursing Assessment

- Assess site q shift for redness, tenderness or an increased temperature
- Assess vital signs pre and post drainage especially BP for possible hypotension
- Assess for excessive cough-possible pulmonary edema
In the light of the scientific evolution, we must make sure that we do **NOT** let technology drive our practice!
Let’s keep in mind our driving \textbf{PRINCIPLES} and VALUES
Let’s not forget about the HUMANITY...
Traditional Management of MPE

- Thoracentesis
  - First step in management
    - Relieves immediate symptoms
    - Fluid sent for cytology to confirm MPE
    - Only temporary as usually recurs within several days
    - Repeated thoracenteses result in increased morbidity
      - Pneumothorax
      - Infection
      - Loculation
    - Must be done by a physician
  - Usually done for those who will respond to chemotherapy or radiation therapy
Management of MPE
Cont’d..

- Thoracostomy
  - Chest tube insertion
    - Pigtail or large bore
  - Drainage until < 100 ml of fluid
- Pleurodesis
  - Instillation of sclerosing agent
    - Talc or doxycycline
  - Drainage of sclerosing agent
  - Removal of chest tube
  - Approximation of the visceral & parietal pleura
- Expected patient outcome
  - Pleural effusion is resolved & will not recur
Treatment: Chemical Pleurodesis

- Several agents available
  - Doxycycline, talc, bleomycin, mitoxantrone, silver nitrate, TGF-β

- Most commonly used agent is
  - Talc
    - Insufflated
    - Slurry
PleurX vs Pleurodesis: Impact on Cost


- Retrospective review

- Compared 68 inpatients with chest tube and pleurodesis to 100 Pleurx patients
  - 60 out-patient, and 40 in-patient

- Out-patient Pleurx patients had significantly lower health care costs
Prevalence of pain

- 67% of cancer patients experience pain
- 33% of cancer patients may have 3 or more causes of pain
  
  (Robert Twycross)

- 95-97% of patients with Stage 4 HIV experience pain
- AIDS patients may have up to 7 different causes of pain

  (Debbie Norval)
Pain History

- Site/Distribution
- Spontaneous or Evoked
- Character
- Pattern
- Superficial vs deep
- Intensity
Pain History

- Aggravating & relieving factors
- Associated motor deficits
- Recent history of pain progression
- Efficacy of current treatment plan
Neuropathic pain:

- Sensory loss +/-
- Altered sensation to cutaneous stimuli
- Allodynia (pain from non-painful stimuli)
- Hyperalgesia (excess pain)
↓ sensitivity to opioids

- With the permission of permission de l’auteur-

De: Mechanism of hyperalgesia and morphine tolerance: a current view of their possible interactions (J.mao et al) Pain 62(95) 259-74

NMDA antagonist (N-Methyl-D-Aspartate)