Pain and Symptom Management in Palliative Care

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1st National Palliative and Hospice Care Conference, Richmond Hotel, Nontaburi
Plan of the Workshop

• Contribution in palliative care
• Basic principles of symptom management
  • Pain
  • Non-pain symptoms
• Interactive discussion: case based presentation
Question

Palliative care (YES or NO)

a) Is only about pain and symptom control
b) Can be used alongside other treatments
c) Should always be done at home
d) Should begin when the patient is very sick
e) Is only needed in cancer and HIV disease
Palliative care: From Definition to evidence

• an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, 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
Palliative Care: Revised and Reality

Traditional View

Revised

Reality

Source: Kantarjian HM, Wolff RA, Koller CA; MD Anderson Manual of Medical Oncology; http://www.accessmedicine.com

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Basic Principles of Symptom Management

• Modality of therapy
  • Curative therapy
  • Palliative therapy
  • Palliative medicine

• Interdisciplinary options
  • surgery
  • radiotherapy
  • pharmacological
  • non-pharmacological

• Planning and evaluation of treatment
  • Continuous and on-demand medication
  • Prevention and rehabilitation
  • Documentation
<table>
<thead>
<tr>
<th>Symptoms (range of severity)</th>
<th>On admission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Fatigue (0–10)</td>
<td>75</td>
</tr>
<tr>
<td>Weakness (0–10)</td>
<td>76</td>
</tr>
<tr>
<td>Pain (0–10)</td>
<td>68</td>
</tr>
<tr>
<td>Anorexia (0–3)</td>
<td>72</td>
</tr>
<tr>
<td>Nausea/vomiting (0–3)</td>
<td>40</td>
</tr>
<tr>
<td>Taste alteration (0–3)</td>
<td>27</td>
</tr>
<tr>
<td>Dysphagia (0–3)</td>
<td>36</td>
</tr>
<tr>
<td>Restless/heat (0–3)</td>
<td>22</td>
</tr>
<tr>
<td>Abdominal fullness (0–3)</td>
<td>48</td>
</tr>
<tr>
<td>Constipation (0–3)</td>
<td>52</td>
</tr>
<tr>
<td>Diarrhea (0–3)</td>
<td>3</td>
</tr>
<tr>
<td>Dry mouth (0–3)</td>
<td>41</td>
</tr>
<tr>
<td>Dizziness (0–3)</td>
<td>38</td>
</tr>
<tr>
<td>Dyspnea (0–3)</td>
<td>37</td>
</tr>
<tr>
<td>Insomnia (0–3)</td>
<td>50</td>
</tr>
<tr>
<td>Night sweats (0–3)</td>
<td>12</td>
</tr>
<tr>
<td>Anxiety (1–5)</td>
<td>51</td>
</tr>
<tr>
<td>Depression (1–5)</td>
<td>59</td>
</tr>
<tr>
<td>Aggression (1–5)</td>
<td>32</td>
</tr>
</tbody>
</table>

# Common Symptoms in Patients With Advanced Cancer

## Not Receiving treatment

<table>
<thead>
<tr>
<th>Pain</th>
<th>Constipation</th>
<th>Dyspnea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue</td>
<td>Weight Loss</td>
<td>Forgetfulness</td>
</tr>
<tr>
<td>Weakness</td>
<td>Anorexia</td>
<td>Taste changes</td>
</tr>
<tr>
<td>Dry mouth</td>
<td>Decreased energy</td>
<td>Depression</td>
</tr>
</tbody>
</table>

## Receiving treatment

<table>
<thead>
<tr>
<th>Anorexia</th>
<th>Fatigue</th>
<th>Dry mouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cachexia</td>
<td>Constipation</td>
<td>Cough</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>Constipation</td>
<td>Neuropathy</td>
</tr>
<tr>
<td>Nausea/Vomiting</td>
<td>Diarrhea</td>
<td>Delirium</td>
</tr>
<tr>
<td>Sleep alterations</td>
<td>Alopecia</td>
<td>Pain</td>
</tr>
<tr>
<td>Cutaneous changes</td>
<td>Memory loss</td>
<td>Stomatitis</td>
</tr>
<tr>
<td>Headache</td>
<td>Hot flashes</td>
<td>Indigestion</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Dysuria</td>
<td>Mood alteration</td>
</tr>
</tbody>
</table>
Pain in Cancer Patient

• Advance oncologic treatment: cancer survivors
• An overall range 28–87%
• > 1/3 patients have moderately to severe pain
  • 33% in curative treatment patient
  • 59% in patients on anticancer treatment
  • 64% in metastatic, advanced or terminal phase

Multiple types of pain coexist in many conditions (mixed pain)

Nociceptive pain
- Somatic
- Visceral

Neuropathic pain
- Peripheral
- Central

Central sensitization/dysfunctional pain

Pathophysiological Classification of Pain

References:
Pain in Cancer

Somatic/nociceptive pain
- Tumor invasion into bone
- Postsurgical pain

Visceral pain
- Tumor invasion into organs e.g. bowel obstruction
- Organ rupture (e.g., bowel, bladder)

Neuropathic pain
- Tumor compression of plexi
- Tumor invasion into nerves, spinal cord
- Radiation-induced nerve injury
- Chemotherapy-induced neuritis

Neuropathic pain (YES or NO)
a) May present as burning pain
b) Is common in AIDS
c) Can be treated with acyclovir
d) Can be assessed with a pain score
e) Is always mild
Concept of Pain Assessment

• Initial and ongoing assessment
• Proper tools and self report
• Quality of pain and choice of pain therapy
  • Somatic, visceral, neuropathic
  • Baseline, breakthrough pain (19-95%)
• Psychosocial distress assessment
  • Total pain concepts

Haugen DF, et al. Pain 2010; 149(3)
Mehta A, Chan LS. J Hospice Palliative Care Nurs. 2008
Emotional pain (yes or no):

a) Only affects the patient
b) Can be treated
c) Should always be treated by a counsellor or spiritual advisor
d) Is often relieved by helping people talk about their concerns
e) May increase physical pain
Total Cancer Pain Concept

Total cancer pain Fact Sheet: Saunders CM. The management of terminal malignant disease
General Principles of Pain Management

• Inform patient: onset pain, communication about suffering, pain management
• Patient as an active role
• Clarify misconception of opioids
• Non pharmacological management
The analgesic ladder (YES or NO)

a) Has four steps

b) Step one drugs can be given together with morphine

c) Should only be used with cancer patients

d) A three-year-old child should be given 400mg ibuprofen tds

e) Includes the use of adjuvant analgesic drugs
Recommendation of Analgesics

• By the clock: prevent onset of pain
  • Bioavailability, half life and duration of action
• Oral route: first choice, easy for self managed
• Prescribe for breakthrough pain episode: rescue dose (immediate release formed)
• Opioid analgesics are mainstay
WHO Strategy

- Ladder analgesics since 1986

1. Pain persisting or increasing
   - Non-opioid
   - ± Adjuvant

2. Pain persisting or increasing
   - Opioid for mild to moderate pain
     - ± Non-opioid
     - ± Adjuvant

3. Freedom from cancer pain
   - Opioid for moderate to severe pain
     - ± Non-opioid
     - ± Adjuvant
Oral morphine (YES or NO)

a) Must be taken for life once it has been started
b) Should only be given when the patient has a few days to live
c) Can be given when the patient is at work
d) Can cause severe constipation
e) Has a high risk of addiction
Mild Pain Treatment

• Nonopioid analgesics: paracetamol, NSAIDs use in any stage
• No evidence to support superior safety or efficacy of one NSAID over any other
• Use only ONE NSAIDs/coxibs at a time
• Improve analgesia when add to WHO step III opioid
• Side effects: NSAIDs gastrointestinal bleeding, platelet dysfunction and renal failure
• COXIBs: risk of thrombotic cardiovascular adverse reactions

McNicol E, Strassels S, Gouds L et al. NSAIDs or paracetamol, alone or combined with opioids, for cancer pain. Cochrane Database of Systematic Reviews 2005, Issue 2
Mild to Moderate Pain Treatment

• Codeine, tramadol or low dose strong opioid
• Tramadol for neuropathic pain
• (beneficially of tramadol combined with paracetamol but beware of over-dosage)
• Beware of serotonin syndrome (using TCA, SSRI, SNRI), ceiling effect
• Dose 200-400 mg/d
• Side effects: nausea, vomiting, vertigo, anorexia and asthenia
Moderate to Severe Pain Treatment

• Strong opioids are the mainstay
• Morphine, fentanyl, methadone, oxycodone, buprenorphine
• Oral morphine if urgent IV (oral:IV 3:1)
• Transdermal (TD) fentanyl, buprenorphine
  • When pain is stable
  • Unable to swallow, poor tolerance of morphine, poor compliance
  • Renal dialysis patient
## Commonly Used Opioid Analgesic Medications

<table>
<thead>
<tr>
<th>Commonly used opioid analgesic medications</th>
<th>Potency vis-a-vis morphine</th>
<th>Rapidity of action</th>
<th>Duration of action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine (natural), standard against which all other opioids are tested</td>
<td>1 (benchmark level)</td>
<td>Plasma levels peak ~20 min after IM or SC injection</td>
<td>Elimination half-life ~120 min</td>
</tr>
<tr>
<td>Oxycodone (semisynthetic), less sedating than morphine</td>
<td>1.5-2 (taken PO) ~1.5 (by injection)</td>
<td>Plasma levels peak ~60 min after conventional form is taken PO.</td>
<td>There are large interindividual variations in rate of metabolism among patients.</td>
</tr>
<tr>
<td>Buprenorphine (semisynthetic), also used for detoxification in dependence treatment</td>
<td>25-30</td>
<td>Not given PO. (high first pass liver metabolism)</td>
<td>Mean elimination half-life is 37 h</td>
</tr>
<tr>
<td>Fentanyl (synthetic), often 1st choice for cancer pain</td>
<td>~100</td>
<td>Not given PO. (high first pass liver metabolism)</td>
<td>Transdermal patches can allow 48-72 h pain relief.</td>
</tr>
<tr>
<td>Hydromorphone (semisynthetic morphine derivative)</td>
<td>8-10</td>
<td>Somewhat faster acting than morphine</td>
<td>Relatively short duration of action</td>
</tr>
<tr>
<td>Methadone (synthetic), usually given PO in racemic form</td>
<td>~3-5</td>
<td>Full analgesic effects not attained until 3-5 d of dosing.</td>
<td>Mean elimination half-life is 22 h. Pain relief lasts ~4-8 h.</td>
</tr>
</tbody>
</table>

Ideal Opioid Regimen for Background Pain and BTP

Pain score

Optimum ATC + PRN dosing

Complex regimen

To minimized pain pathway sensitization

ATC Med Rescue dose Rescue dose BTP

Time

24
Moderate to Severe Pain Treatment

- Methadone for expert use
- Interindividual differences in plasma half life and duration
- Opioid switching to improve pain relief and drug tolerability
Opioid that should be Avoided

• Pethidine
  • N-demethylated to norpethidine which is toxic metabolites (12-16 hr)
  • may cause seizures, mood alterations, and confusion
  • Naloxone does not reverse this effect
Opioid Side Effects

- Constipation
- Nausea/vomiting
- Urinary retention
- Pruritus
- Central nervous system (CNS) toxicity
  - drowsiness, cognitive impairment, confusion, hallucinations, myoclonic jerks, opioid-induced hyperalgesia/allodynia
Strategic Management of Opioid Side Effects

• Reduce dose of opioid
• Add coanalgesic
• Continued use antiemetics, routine use of laxatives, tranquilizers
• Alternative approach
  • Nerve block, radiation therapy
• Switching to another opioid/route
# Opioid Equianalgesic Conversions

<table>
<thead>
<tr>
<th>Drug</th>
<th>IV/IM Dose (mg)</th>
<th>Oral Dose (mg)</th>
<th>Starting Oral Dose (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>10</td>
<td>30</td>
<td>30–60</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>1.5</td>
<td>7.5</td>
<td>4–8</td>
</tr>
<tr>
<td>Methadone</td>
<td>10</td>
<td>10</td>
<td>5–10</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>—</td>
<td>20–30</td>
<td>5–30</td>
</tr>
<tr>
<td>Meperidine</td>
<td>75</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Codeine</td>
<td>130</td>
<td>200</td>
<td>30–60</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>0.1</td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>
Adjuvant Analgesics

• a primary indication other than pain

• Specific indications
  • Neuropathic pain
  • Bone pain
  • Musculoskeletal pain
  • Bowel obstruction

• Multipurpose analgesics
  • Steroid, Alpha 2 adrenergic agonists: Clonidine, tizanidine, Neuroleptic: Olanzapine
# Antidepressant for Neuropathic Pain

<table>
<thead>
<tr>
<th>Drug</th>
<th>Drug interactions</th>
<th>Adverse effects</th>
<th>Dosage</th>
<th>Usual effective dose (and maximum)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tricyclic antidepressants</strong> (amitriptyline, imipramine, nortriptyline, desipramine)</td>
<td>Metabolism by CYP450 2D6 (note: rapid v. slow metabolizers), potentiates other sedatives</td>
<td>Cardiac conduction block, orthostatic hypotension, sedation, confusion, urinary retention, dry mouth, constipation, weight gain</td>
<td>10-25 mg/d, at bedtime or in divided doses every 12 h; increase dose weekly by 10-25 mg/d</td>
<td>50-150 mg/d; median 50-75 mg/d</td>
<td>More adverse effects with amitriptyline and imipramine; contraindicated in patients with glaucoma and those taking MAOIs</td>
</tr>
<tr>
<td><strong>SNRIs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duloxetine</td>
<td>Metabolism by CYP450 2D6</td>
<td>Sedation, ataxia, nausea, dry mouth, constipation, hyperhidrosis, anorexia</td>
<td>60 mg once daily; 60 mg every 12 h also safe and effective</td>
<td>60 mg/d (maximum 120 mg/d)</td>
<td>Contraindicated in patients with glaucoma and those taking MAOIs; recent US FDA approval for use in diabetic neuropathy</td>
</tr>
<tr>
<td>Venlafaxine</td>
<td>Metabolism by CYP450 2D6 and 3A4</td>
<td>Hypertension, ataxia, sedation, insomnia, nausea, hyperhidrosis, dry mouth, constipation, anxiety, anorexia</td>
<td>37.5 mg once daily; increase dose weekly by 37.5 mg/d</td>
<td>150-225 mg/d (maximum 375 mg/d)</td>
<td>Dose adjustment in patients with renal dysfunction; contraindicated in patients taking MAOIs</td>
</tr>
</tbody>
</table>
# Anticonvulsant for Neuropathic Pain

<table>
<thead>
<tr>
<th>Drug</th>
<th>Drug interactions</th>
<th>Adverse effects</th>
<th>Dosage</th>
<th>Usual effective dose (and maximum)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamazepine (CBZ)</td>
<td>Metabolism by CYP450 3A4, 1A2 and 2C8; inducer of CYP450 1A2, 2C and 3A</td>
<td>Sedation, ataxia, rash, diplopia, hyponatremia, agranulocytosis, nausea, diarrhea, hepatotoxicity, aplastic anemia, Stevens-Johnson syndrome</td>
<td>100-200 mg/d, in divided doses every 6-8 h; increase dose weekly by 100-200 mg/d</td>
<td>600-1200 mg/d (maximum 1600 mg/d); for trigeminal neuralgia, controlled-release CBZ every 8-12 h, with short-acting CBZ every 4 h for rescue</td>
<td>First-line therapy for trigeminal neuralgia only; contraindicated in patients with porphyria or atrioventricular block and in those taking MAOIs; monitor CBC, liver function test results and blood levels</td>
</tr>
<tr>
<td>Gabapentin</td>
<td>Simple antacids reduce bioavailability</td>
<td>Sedation, ataxia, edema, weight gain, diplopia, nystagmus</td>
<td>300-900 mg/d, in divided doses every 8 h; increase dose weekly by 300 mg/d</td>
<td>1200-2400 mg/d (maximum 3600 mg/d)</td>
<td>Dose adjustment in patients with renal dysfunction</td>
</tr>
<tr>
<td>Pregabalin</td>
<td>None documented to date</td>
<td>Sedation, ataxia, edema, diplopia, weight gain, dry mouth</td>
<td>50-150 mg/d, in divided doses every 8-12 h; increase dose weekly by 50-150 mg/d</td>
<td>300-600 mg/d (maximum 600 mg/d)</td>
<td>Dose adjustment in patients with renal dysfunction</td>
</tr>
</tbody>
</table>
Adjuvant Therapy for Pain from Bowel Obstruction

- Somatostatin analogue
  - Octreotide
- Anticholinergic
  - Scopolamine, glycopyrrolate
- Steroid:
  - Dexamethasone 8-60 mg/d
  - Methylprednisolone 30-50 mg/d
Steroid Usage in Cancer Pain

• Acute spinal cord compression
  • Dexamethasone 10-20 mg q 6 hr
  • Methylprednisolone 40-80 mg q 6 hr

• Soft tissues infiltration, visceral distention, increased ICP
  • Dexamethasone 4-8 mg q 8-12 hr
  • Methylprednisolone 16-32 mg q 8-12 hr
  • Prednisolone 20-40 mg q 8-12 hr

• Taper to the minimal effective dose 2-3 days
• Adverse effects: steroid psychosis; mild euphoria, proximal myopathy
Non-pharmacological Treatment

• Complementary therapies
  • Massage and aromatherapy
  • Music therapy
  • Acupuncture
  • Transcutaneous electrical nerve stimulation (TENS)
  • Others: reflexology, reiki, hypnotherapy

• Nursing interventions
• Physiotherapy
• Psychotherapy and counselling
Interventional Pain Management

- Specific conditions
  - Cementoplasty in metastatic bone cancer
- Anesthetic intervention
  - E.g. neuraxial block, neurolysis
## Recommendations for Management of Cancer Pain

<table>
<thead>
<tr>
<th>Pain assessment</th>
<th>Drug availability</th>
<th>Specialised interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic</strong></td>
<td>Paracetamol; non-steroidal anti-inflammatory drugs; at least one step 2^\text{nd} opioid (eg, codeine or tramadol); immediate-release oral morphine; one type of steroid in addition to morphine</td>
<td>None</td>
</tr>
<tr>
<td><strong>Limited</strong></td>
<td>At least one neuropathic pain adjuvant (eg, amitriptyline); at least one slow-release opioid preparation</td>
<td>Referral to radiation oncology for pain from bone metastasis</td>
</tr>
<tr>
<td><strong>Enhanced</strong></td>
<td>At least two step 3^\text{rd} opioids in various formulations (including transdermal and injectable); at least two types of neuropathic pain adjuvants</td>
<td>Restricted invasive interventions (eg, coeliac plexus neurolysis); access to physical or psychological therapy as indicated</td>
</tr>
<tr>
<td><strong>Maximal</strong></td>
<td>At least three step 3^\text{rd} opioids in various formulations (including transdermal and injectable) plus methadone; full range of adjuvants including bisphosphonates</td>
<td>Wide range of invasive interventions including neurolysis, regional anaesthesia, and neuraxial analgesic infusions</td>
</tr>
</tbody>
</table>
Specific Pain in Cancer Patient

- Cancer induced bone pain (CIBP)
- Neuropathic pain in cancer
- Tumor induced headache
- Refractory pain
- Pain at the end of life
Refractory Pain

• Difficult to manage by oral/TD
• Intervention pain management
• Switching from oral to epidural or continuous subcutaneous
• Intrathecal delivery in patient with expectancy > 3 months
  • 20-40% epidural, 10% intrathecal of systemic dose
• Neurolytic block: celiac plexus lasts 3-6 months
Pain at the End of Life

- Hours or months before death
- Some are refractory
- Total suffering assessment with multidisciplinary approach
- Ethical concern and laws
- 70% alternate route of opioid
- Other symptoms: dyspnea, agitation, delirium and anxiety
- Sedation: benzodiazepines, neuroleptics
Pain in the last hours of life

• Management when no urine output
  • Stop routine dosing, infusions of morphine
  • Breakthrough dosing as needed (PRN)
  • Least invasive route of administration

• Limit to essential medications

• Choose less-invasive route of administration
  • Buccal mucosa or oral first, then consider rectal
  • Subcutaneous, intravenous rarely
  • Intramuscular almost never
Common Non-Pain Symptoms

- Gastrointestinal symptoms
  - Constipation, diarrhea, ileus
- Nausea and vomiting
- Pulmonary symptoms
  - Dyspnea, cough
- Neuropsychiatric symptoms
  - Delirium, insomnia, depression, anxiety, hallucination, confusion
- Anorexia, cachexia
  - Loss appetite, fatigue
- Thirst, dry mouth
- Dermatologic symptoms
  - Lymphedema
- Terminal care
## Common Symptoms in Patients With Advanced Cancer

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anorexia</td>
<td>30-92</td>
</tr>
<tr>
<td>pain</td>
<td>35-96</td>
</tr>
<tr>
<td>fatigue</td>
<td>32-90</td>
</tr>
<tr>
<td>dyspnea</td>
<td>10-70</td>
</tr>
<tr>
<td>delirium</td>
<td>6-93</td>
</tr>
<tr>
<td>depression</td>
<td>3-77</td>
</tr>
</tbody>
</table>

Bruera E, Hui D. JCO. 2010;28:4013-4017
Principles of Management of Pain and Other Symptoms

• Assessment

• Management
  Treatment of cause of underlying problem
  Treatment of exacerbating factors of symptom
  Treatment of symptom itself:
    • Pharmacological interventions
    • Non-pharmacological interventions
    • Interventional techniques
    • Traditional medicine or complementary therapies
  Treatment of comorbidities or complications (including physical, psychological, social, and spiritual problems)

• Reassessment
  To assess response to management and any change in underlying problem
a) Breathlessness may respond to low dose oral morphine
b) Raised intra-cranial pressure can be helped by steroids
c) A confused patient should be given 150mg haloperidol
d) Itching can be helped by chlorpheniramine 4mg tds
e) The starting dose of morphine in a child is 0.1mg/kg four hourly
Breathlessness/Dyspnea

• Feeling shortness of breath
• Cancer, treatment related
• Medullary respiratory center and opioid receptor
• Assessment tools: Visual analogue scales (VAS), Numerical rating scales (NRS), Modified Borg Scale, Edmonton Symptom Assessment System
### Dyspnea Management Guideline

<table>
<thead>
<tr>
<th>CAUSES</th>
<th>TREATMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central airway obstruction</td>
<td>Endoscopic interventions; Debulking and stent placement, Palliative radiation</td>
</tr>
<tr>
<td>Pleural effusion</td>
<td>Thoracentesis*, Indwelling tunneled pleural catheter</td>
</tr>
<tr>
<td>Lymphangitic tumor</td>
<td>Chemotherapy, Steroids</td>
</tr>
<tr>
<td>Drug toxicity</td>
<td>Stop presumed offending drug, steroids if significant respiratory compromise</td>
</tr>
<tr>
<td>Pericardial effusion</td>
<td>Pericardiocentesis</td>
</tr>
</tbody>
</table>

Modified from Haas AR. Recent advances in the palliative management of respiratory symptoms in advanced-stage oncology patients. The American journal of hospice & palliative care. 2007;24(2):144-51.
Dyspnea Management Guideline

• Pharmacological management
  • Morphine low dose, titration
  • Benzodiazepine
  • Others: chlorpromazine, steroids, bronchodilator, antibiotics

• Non pharmacological management
  • Oxygen goal only palliate symptom!! Don’t have to increase for SaO2
  • Non invasive ventilation, breathing training, open room, fan, position, music

<table>
<thead>
<tr>
<th>Clinical recommendation</th>
<th>Evidence rating</th>
<th>References</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioids should be used for dyspnea at the end of life.</td>
<td>A</td>
<td>6, 7</td>
<td>Multiple studies have shown that nebulized opioids have no benefit over systemic administration in terms of effect or adverse effects.</td>
</tr>
<tr>
<td>Opioids should be used for pain at the end of life.</td>
<td>C</td>
<td>12</td>
<td>The ethical limitations of withholding opioids have limited the study of opioids versus placebo, except in neuropathic pain.</td>
</tr>
<tr>
<td>Stimulant laxatives are effective for prevention and treatment of constipation in persons on opioids.</td>
<td>C</td>
<td>20, 25</td>
<td>There is no clear benefit of one regimen over another.</td>
</tr>
<tr>
<td>Methylnaltrexone (Relistor) can be used for treatment of opioid bowel dysfunction.</td>
<td>B</td>
<td>22, 23</td>
<td>Methylnaltrexone has recently been added as a treatment option.</td>
</tr>
<tr>
<td>Corticosteroids can be used for malignant bowel obstruction.</td>
<td>B</td>
<td>33</td>
<td>—</td>
</tr>
<tr>
<td>Haloperidol (formerly Haldol) is effective for nausea and vomiting.</td>
<td>B</td>
<td>34, 35</td>
<td>—</td>
</tr>
<tr>
<td>Hyoscyamine (Levsin) should be used for the “death rattle” (excessive respiratory secretions).</td>
<td>C</td>
<td>40</td>
<td>—</td>
</tr>
</tbody>
</table>

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to http://www.aafp.org/afpsort.xml.
Nausea and Vomiting

• In terminal disease

• May related to other medications – chemoreceptor trigger zone mechanism
  • Opioids, antibiotics, constipation, hypercalcemia, uremia

• Treatment: antiemetic

• Nonpharmacological management: adjust meals, positions, environment
Delirium

- Acute, fluctuation, inattention, disorganized thinking or alteration of conscious
- Precipitating
  - Infections, drugs, dementia, comorbidities
- Hypoactive delirium lead to somnolence
  - active dying in cancer, dehydration/opioid
- Agitation ? 70% suffer to families may need palliative sedation
Delirium Management

- Consider type of delirium
- Adjust environment room
- Reduce drugs (unnecessary): BZD (except alcohol withdrawal), anti HT - amlodipine, antihistamine, opioids
- Hydration
- Haloperidol low dose < 5 mg may + BZD
  - (parkinson – worse!)

Fatigue

- Cancer treatment: radiation, chemotherapy, cancer itself at last stage
- Medications related sedative drugs
- Coexisting symptoms: nausea, insomnia

Management
- Exercise: regulation of activities
- Correct cause: e.g. anemia
- Medications: methylphenidate
Common Symptoms at End of Life and Their Treatment: NCI

**Cough**

- Consider etiology (infection, bronchospasm, effusions, lymphangitis, cardiac failure) and treat accordingly
- Use opioids (small, frequent doses)
- Use other antitussives such as dextromethorphan
- Use glucocorticoids such as dexamethasone to manage cough due to bronchitis, asthma, radiation pneumonitis, and lymphangitis
- Use bronchodilators for bronchospasm leading to cough
- Use nonsedating antihistamines with or without decongestants for sinus disease
- Use diuretics to relieve cough due to cardiac failure
Common Symptoms at End of Life and Their Treatment

**Rattle**
- Use scopolamine transdermal patch
- Use glycopyrrolate
- Use atropine, 0.4 mg SQ every 15 minutes prn
- Use hyoscyamine
- Change position or elevate head of bed
- Reduce or discontinue enteral or parenteral fluids
- Avoid suctioning
Fever

• Use antimicrobials if consistent with goals of care
• Use antipyretics such as acetaminophen
• Apply cool cotton cloths
• Give tepid sponge baths
Common Symptoms at End of Life and Their Treatment

**Hemorrhage**

- Use vitamin K or blood products for chronic bleeding if consistent with goals of care
- Use aminocaproic acid (PO or IV)
- Induce rapid sedation with IV midazolam when catastrophic hemorrhage occurs
- Use blue or green towels to minimize distress of family
- Speak calmly and reassure the patient that he or she is not alone (and, if loved ones are in attendance, let the patient know they are there)

**Provide support to family members**
End of life care (yes or no)

a) The patient’s own wishes should always be respected

b) Patients should always be fed by NG tube if they cannot swallow

c) It is okay to tell the patient he/she is dying

d) We must keep the patient alive as long as possible

e) Patients should continue all their drugs until the end
1. Disease management
   • diagnosis
   • date of diagnosis
   • prognosis
   • comorbidities

2. Physical issues
   • pain, other symptoms
   • level of consciousness
   • function
   • wounds

3. Psychological & cognitive issues
   • anxiety
   • delirium
   • depression
   • emotions

4. Social issues
   • family
   • relationships, roles
   • finances

5. Spiritual issues
   • meaning, purpose
   • existential beliefs
   • hopes, expectations
   • religion
   • rituals

6. Practical issues
   • activities of daily living
     - personal care
     - household chores
   • transportation
   • caregiving

7. End of life/death management
   • life closure
   • legacy creation
   • death

8. Loss, grief
   • actual
   • anticipated

Patient / family characteristics
• age, gender
• race
• culture
Palliative care varies in the care level of service
Best symptom management including pain and non pain management
Optimum quality of life until the end of life
Thank you

Q and A