Palliative Sedation

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Objectives

- Define palliative sedation and goals of palliative sedation therapy (PST)
- Review position statements, processes, and conditions of sedation
- Define refractory symptoms, emphasizing the importance of documentation and planning
- Review patient assessment, prognostication, ethical concerns, and medication selection
What is palliative sedation?

Exhaust Alternatives
Lower Consciousness
Preserve Ethics
Monitor Outcomes
Key Components of Palliative Sedation

- Presence of refractory and intolerable symptom(s)
- Absence of viable alternative solution
- Reduce awareness of suffering
- Proportionality of sedation to symptom severity
Palliative sedation is...

- **AAHPM** “…the intentional lowering of awareness towards, and including, unconsciousness for patients with severe and refractory symptoms.”

- **HPNA** “…is the monitored use of medications intended to induce varying degrees of unconsciousness, but not death, for relief of refractory and unendurable symptoms in imminently dying patients.”

- **NHPCO** “…the lowering of patient consciousness using medications for the express purpose of limiting patient awareness of suffering that is intractable and intolerable.”
Patient Case #1

- 43-year-old male admitted to hospice with primary dx = malignant neoplasm of rectosigmoid junction
- **CC:** abdominal and pelvic pain
  - Intensity rating 6/10
  - Describes as sharp, stabbing as well as dull and continuous
- **Hx:** Seizure disorder; recently diagnosed depression and anxiety
- **Social:** father of two children; wife (physician) is primary caregiver
Patient Case #1

- Transdermal fentanyl patches discontinued
- IV hydromorphone titrated:
  - 3.5mg/hour continuously
  - 1 mg every 10 minutes prn pain
- Dexamethasone 4mg po q8h initiated
  - Pain intensity rating decreased to 4/10 at baseline
  - Patient and caregiver noticed increased aggression and anxiety
- Patient developed myoclonus with hydromorphone titrations
  - Hallucinations on morphine previously
- Patient transitioned to IV fentanyl 200mcg/hour continuously with 50mcg q15 minutes prn pain
Position Statements

- **AAHPM** American Academy of Hospice and Palliative Medicine
- **HPNA** Hospice & Palliative Nurses Association
- **NHPCO** National Hospice and Palliative Care Organization
Presence of Refractory Symptoms

- Physical suffering that is intractable and intolerable
  - Delirium
  - Dyspnea
  - Pain
  - Seizures
Absence of Alternatives

- Suffering is uncontrolled by available alternative therapies
- Alternative therapies are...
  - Incapable of providing adequate relief
  - Associated with unacceptable adverse effects
  - Unlikely to provide relief within an acceptable time frame

JPSM 2010
Patient Assessment

- Initial discussion
  - May include patient, family, friends, caregivers, interdisciplinary team (IDT)
  - Goals of care
Patient Assessment

- Involve the interdisciplinary care team in the assessment of the patient
  - Pain specialist, psychiatrist, nurse, pharmacist
- Determine whether there are reversible or treatable factors
  - If yes, then re-evaluate once treated
- Consider prognosis

References:
- J Palliat Med 2003
- Am J Health Syst Pharm 2011
Patient Case #1

- 3 months later: ↑ pain, anxiety, restlessness
  - IV fentanyl 550mcg/hour continuously
  - IV fentanyl 100mcg q15 minutes prn breakthrough pain
  - Requesting approximately twice the available breakthrough pain doses

- Significant ascites with solid food ingestion

- Best pain rating is 5/10 approximately one hour after promethazine 25mg PO and Diazepam 10mg PO
Documentation and Planning

- **Level of sedation**
  - Mild
  - Intermediate
  - Deep

- **Types of sedation**
  - Continuous
  - Intermittent
Documentation and Planning

- Outcome criteria
  - Relief of suffering
  - Level of consciousness

- Physiological parameters
  - Clinical assessment of symptom relief

- Monitoring frequency

JPSM 2015
Ethical Concerns

- Inappropriate application or use of sedation
- Misconception as euthanasia
- Concern for hastening death
# Ethical Concerns

## Problematic Practices
- Large, single dose of sedatives
- Absence of titration
- Infrequent or absent monitoring

## Appropriate Practices
- Low, safe initial dose of sedatives
- Titration schedule
- Planned monitoring with defined parameters
Patient Case #2

- 65-year-old female admitted to hospice with primary dx = progressive supranuclear palsy

- **CC:** Increasing falls, aggression
  - Requires full-time supervision

- **Hx:** Gout, Glaucoma, HTN, Hypercholesterolemia, Depression, Hypothyroidism, Reflux

- **Social:** previously lived alone; estranged from only son; currently living with sister and sister’s spouse
Patient Case #2

- Pharmacologic and non-pharmacologic therapy
- Past seven days, patient receiving:
  - Haloperidol 4mg po bid
  - Lorazepam 0.5mg po tid
  - Olanzapine 10mg bid
  - Trialed therapies: ziprasidone, valproate, divalproex
- Behaviors initially improved but returned to baseline
- Escalation: Haloperidol decanoate 50mg IM qmonth
- Patient not sleeping, symptoms progressing
- Family request for palliative sedation
Palliation versus Euthanasia

- Palliative sedation is distinct from euthanasia because it differs in main aspects:
  - Intent
  - Proportionality
  - Criterion for success of treatment
Palliation versus Euthanasia

**Palliative Sedation**
- **Intent**: Intentional relief of suffering by sedation
- **Proportionality**: Sedation is proportional to severity of symptom
- **Criterion of treatment success**: Relief of suffering

**Euthanasia**
- **Intent**: Intentional termination of life
- **Proportionality**: dose is not proportional to severity of symptom
- **Criterion of treatment success**: Death
Principle of Double Effect

- **Double effect**
  - Relief of suffering
  - Possible foreshortening of life

- **Moral permissibility is derived from intent**
  - Intent to relieve suffering

- There is no evidence that palliative sedation shortens survival in retrospective studies

*Lancet Oncol* 2016
Medication Selection

- First-line agents are often benzodiazepines, specifically midazolam
- If agitation is present, concomitant use of an antipsychotic is recommended
  - Haloperidol
  - Chlorpromazine
- Propofol is a last-resort option
- Do not use opioids for purposes of sedation, but continue opioids for pain and to prevent withdrawal
Medication Administration

- Setting
  - Inpatient
  - Homecare settings
- Initial dose titration and monitoring
- Route of administration
  - IV, IM, SUBQ, PR
  - Emergency bolus
# Pharmacologic Agents: Benzodiazepines

<table>
<thead>
<tr>
<th>Drug</th>
<th>Adult Dose</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midazolam</td>
<td>Initial: 0.5-1mg/hr IV or SUBQ</td>
<td>• Available/administered IV or SUBQ</td>
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<tr>
<td></td>
<td>• Short-acting, often requires continuous</td>
<td>• Water soluble</td>
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<tr>
<td></td>
<td>infusion</td>
<td>• Paradoxical agitation may occur</td>
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<tr>
<td></td>
<td></td>
<td>• Development of tolerance, especially in younger patients</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>Intermittent: 0.5-2 mg SL/PR/IV/IM/ SUBQ q2h*</td>
<td>• Alternative to midazolam</td>
</tr>
<tr>
<td></td>
<td>Continuous: 0.01 – 0.1 mg/kg/hr IV or SUBQ</td>
<td>• Slower onset compared to midazolam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• IV and CSUBQ! line incompatibilities; risk of precipitation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Also beneficial for seizures, muscle spasms, N/V</td>
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Pharmacologic Agents: Antipsychotics

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<thead>
<tr>
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<tbody>
<tr>
<td>Chlorpromazine</td>
<td>Initial: 25-100mg PR/IM/IV q4h*</td>
<td>• Sedating antipsychotic with rapid onset</td>
</tr>
<tr>
<td></td>
<td>Continuous: 3-5mg/hr IV</td>
<td>• May be used in conjunction with midazolam for delirium</td>
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<tr>
<td></td>
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<td>• QTc prolongation potential</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>Initial: 0.5-2 mg SL/PR/IV/SUBQ/IM q4h*</td>
<td>• Oral solution allows for passive swallowing</td>
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<td></td>
<td>• May also be administered as continuous infusion</td>
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BMC Palliat Care 2016
# Pharmacologic Agents: Barbiturates

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<tr>
<th>Drug</th>
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<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Phenobarbital</td>
<td>Initial: 60-120mg PR/IV/IM q4h*</td>
<td>• Paradoxical excitement, especially in older adults</td>
</tr>
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<td></td>
<td>Initial dosing consideration: 1-3 mg/kg IV/IM/PR</td>
<td>• Drug interactions, CYP450 enzyme inducer</td>
</tr>
<tr>
<td></td>
<td>Continuous Infusion: 0.5 mg/kg/h (IV or SUBQ)</td>
<td>• Alternative for patients who have developed tolerance or have not</td>
</tr>
<tr>
<td></td>
<td></td>
<td>responded to first-line agents</td>
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<tr>
<td></td>
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<td>• Long half-life; less frequent dosing</td>
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*Am J Hosp Palliat Care 2019*
Pharmacologic Agents: Anesthetics

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<tr>
<th>Drug</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>Propofol</td>
<td>Continuous infusion 5 mcg/kg/min IV</td>
<td>• Requires monitored setting</td>
</tr>
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<td></td>
<td>Titrate every 5-10 minutes in increments of 5-10 mcg/kg/min</td>
<td>• Requires central line administration</td>
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<tr>
<td></td>
<td></td>
<td>• Not first-line option</td>
</tr>
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<td></td>
<td></td>
<td>• Reliable, rapid unconsciousness when deep sedation is necessary</td>
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JPSM 2015
Patient Cases

Patient 1

Patient 2
Thank you

ellenf@avacare.biz
Selected References


Selected References


Selected References


