Palliative Sedation
Clinical and Ethical Perspectives
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Disclosure
- No relevant financial or commercial disclosures

Principlism
- Autonomy
- Beneficence
- Nonmaleficence
- Justice
Palliative Sedation

- The use of medications to intentionally induce decreased level of consciousness as a means to manage severe and refractory symptoms
- Usually, but not necessarily, maintained to the patient’s death

Refractory/Intractable Symptoms

- A symptom is considered “refractory” or “intractable” when:
  - adequate relief cannot be obtained
  - relief cannot be obtained without intolerable side effects
  - relief cannot be obtained within an acceptable timeframe
  - patient reports intolerable suffering in regards to the symptom regardless of management

Symptom Frequency

Table 1. Refractory symptom frequency (%)
Proportional/Proportionate Sedation

- Multidimensional Notion
- Mild vs Deep
- "May aim for deep sedation from the start or choose for a more gradual approach. Proportionality refers not only to the titration of sedatives for the relief of refractory symptoms but also to titration to patients' preferences, communication needs, wishes of relatives and aesthetic consequences."

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Symptom-guided procedure, utilizing the minimum effect dose for sedation

Requires monitoring to assess response to medication

"Patients who are sedated can be talked to, wanted, cared for, and loved by their relatives, sometimes “answering” with their presence in surprising and unexpected ways."

Effect on Survival

Impact of palliative sedation on survival

Summary of findings: The benefits of palliative sedation were not clear in the overall analysis. However, the analysis of patients with a potentially life-limiting illness (e.g., cancer) showed a trend towards improved survival with palliative sedation. This effect was particularly pronounced in patients with cancer.

Effect on quality of life

Palliative sedation was associated with a significant improvement in quality of life, as measured by the Palliative Care Assessment Tool. Patients who received palliative sedation reported increased satisfaction with their care and a sense of well-being.

Impact on caregivers

Palliative sedation was beneficial for caregivers, who reported reduced anxiety and stress levels. The caregivers also noted a decrease in the burden of caring for a terminally ill patient, which improved their quality of life.

Conclusion

Palliative sedation can be a valuable tool in the care of patients with life-threatening illnesses. It is recommended to be used in conjunction with other supportive care measures for patients with a poor prognosis.
The doctrine of double effect was developed by the Roman Catholic church, dating back to the Salmanticenses theologians of the 16th and 17th centuries.

It is applied to situations in which it is impossible to avoid all harmful actions, helping clinicians decide whether one potentially harmful action is preferable to another.

Example: Abortion

1. The nature of the act must be good or morally neutral and not in a category that is absolutely prohibited or intrinsically wrong.
2. The intent of the provider and procedure must be good. The bad effect can be foreseen, tolerated, and permitted.
3. A distinction between means and effects must be envisioned, in that death must not be the means to the good effect.
4. A proportionality between the good and bad effects must be substantiated by reason, in that the good effect must exceed or balance the bad effect.
For clinicians and others who believe in an absolute prohibition against actions that intentionally cause death, the rule of double effect may be useful as a way of justifying adequate pain relief and other palliative measures for dying patients. But the rule is not a necessary means to that important end.

The rule’s absolute prohibitions, unrealistic characterization of physicians’ intentions, and failure to account for patients’ wishes (autonomy) make it problematic in many circumstances.

### Euthanasia
- The use of medications to intentionally induce death as a means to manage severe and refractory symptoms
- Example: Netherlands
  - (2002) Termination of Life on Request and Assisted Suicide (Review Procedures) Act
  - Pancuronium – Stop breathing
    - No sedating or analgesic effects

### Pitfalls for Injudicious Use
- Inadequate patient assessment in which potentially reversible causes of distress are missed
- Failure to engage expert clinicians in relief of symptoms
- The case of an overwhelmed physician resorting to sedation because he is fatigued and frustrated by the care of a complex symptomatic patient
- Demand for sedation is generated by the patient’s family/proxy and not the patient him/herself
Psychological distress and existential suffering

“Psychological distress and existential suffering are complex and challenging. These terms encompass issues such as meaninglessness of life, sense of hopelessness, perception of self as a burden to others, feeling dependent on others, feeling isolated, grieving, loss of dignity and purpose, fear of death of self, or fear of the unknown”

Psychological distress and existential suffering

Although the Academy recognizes that existential distress may cause patients to experience suffering of significant magnitude, there is no consensus around the ability to define, assess, and gauge existential suffering, or measure the efficacy of treatments for existential distress, and whether it's in the name of medicine to palliate such suffering when it occurs absent of physical symptoms. Patients with existential suffering should be thoroughly assessed and treated through rigorous, multidisciplinary efforts which may include involving professionals who are not usual members of the palliative care team (e.g., experts in psychological, family therapy, or specific spiritual services). If palliative sedation is used for refractory existential suffering, as for the use for physical symptoms, it should not be deemed curative.

Physicians may offer palliative sedation to unconsciousness to address refractory clinical symptoms, not to respond to existential suffering arising from such issues as death anxiety, isolation, or loss of control. Existential suffering should be addressed through appropriate social, psychological or spiritual support.

Medications commonly used for PS

- Benzodiazepines
  - Midazolam
  - Lorazepam
- Neuroleptics
  - Haloperidol
  - Chlorpromazine
- Barbiturates
  - Phenobarbital
- Propofol

Benzodiazepines

- Midazolam
  - Pharmacology
    - Water-soluble, short-acting
    - Metabolized to lipophilic compound that rapidly penetrates CNS
  - Loading dose: 1mg to 5mg
  - Starting dose: IV or SQ infusion at 0.5mg/hr to 1mg/hr
  - Maintenance dose
    - 1mg/hr to 20mg/hr (can intermittently administer 1mg to 5mg during infusion as needed)
  - Advantages: Rapid onset
  - Side effects: paradoxical agitation, respiratory depression, hiccups, n/v
Benzodiazepines

- **Lorazepam**
  - Pharmacology
    - Elimination not altered by renal/hepatic dysfunction
    - Peak effect approx. 30min after IV administration
    - Slower pharmacokinetics - less amenable to rapid titration
  - Starting dose:
    - IV or SQ at 0.5mg/hr to 1mg/hr
    - SL at 1mg to 5mg every 4hr to 3hr (unpredictable absorption)
  - Maintenance dose:
    - IV or SQ at 5mg/day to 40mg/day (titrate by 1mg Q2H)
  - Advantages: Rapid onset
  - Side effects: paradoxical agitation, hypotension, abdominal discomfort, nausea

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Neuroleptics

- **Haloperidol**
  - Pharmacology
    - Non-selectively blocks postsynaptic D₂ receptors
  - Starting dose:
    - IV or SQ or PO at 0.5mg to 5mg Q2-4hours or
    - For continuous infusion (SQ or IV):
      - 1mg to 5mg bolus then 0.5mg/hr to 1mg/hr
  - Maintenance dose:
    - 5mg to 15mg per day (increase infusion rate by 0.5mg/hr)
  - Side effects: EPS, NMS

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Neuroleptics

- **Chlorpromazine**
  - Pharmacology
    - Blocks postsynaptic D₂ receptors
    - Strong alpha-adrenergic blocking effect
  - Starting dose:
    - IV at 12.5mg Q4-12H
    - PR at 25mg to 100mg Q4-12H
  - Maintenance dose:
    - IV infusion at 3mg/hr to 5mg/hr
    - PR at 75mg to 300mg per day
  - Side effects:
    - Orthostatic hypotension, EPS, paradoxical agitation, anticholinergic effects
Barbiturates

- Phenobarbital
  - Pharmacology:
    - Depresses sensory cortex, decreases motor activity, alters cerebellar function to produce drowsiness and sedation
  - Starting dose:
    - IV or SQ bolus at 1mg/kg to 3mg/kg followed by starting infusion at 0.5mg/kg/hr
    - PO or PR bolus is 100mg
  - Maintenance dose:
    - IV or SQ increase in 1mg/kg/hr increment to maintain sedation
    - PO or PR increase in increments of 30mg
  - Advantages: Rapid onset
  - Adverse effects:
    - Paradoxical excitement in elderly, hypotension, Stevens-Johnson syndrome, angioedema, rash

Propofol

- Pharmacology:
  - Short-acting lipophilic IV general anesthetic
- Starting dose: 0.5mg/kg/hr
- Maintenance dose: 1-4mg/kg/hr
- Advantages:
  - Rapidly causes unconsciousness
  - Easy to titrate
- Adverse effects:
  - Hypotension, involuntary body movements, apnea