PALLIATIVE CARE NETWORK OF WISCONSIN

FAST FACTS AND CONCEPTS #107
CONTROLLED SEDATION FOR REFRACTORY SUFFERING – PART 2

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Introduction *Fast Fact* #106 reviewed the decision process and clinical guidelines for controlled sedation for refractory suffering at the end-of-life. This *Fast Fact* will review sedation techniques.

Prior to Initiating Sedation

- Ensure thorough discussion of proposed treatment plan and expected outcomes with patient (if able), all family members, and all medical staff (physicians, nurses, therapists, nursing aides, chaplain, etc.).
- Review plans for use of artificial nutrition/hydration—ensure treatment plan has been discussed (either stopping or continuing) and documented with patient/family and medical team.
- Document informed consent discussion and write DNR order.
- Assure a peaceful, quiet setting, with a minimum of intrusions.
- Confirm any specific goals that need to be met prior to starting sedation (e.g. visit from distant relative).
- Confirm patient/family desire for chaplain/spiritual support prior to starting sedation.
- Review medication and treatment orders—discontinue orders not contributing to comfort (e.g. vital sign monitoring, blood glucose checks).

Starting Sedation Many drugs have been used to provide effective sedation; there are no controlled trials comparing efficacy. Midazolam, other benzodiazepines, barbiturates and propafol all have efficacy as sedatives. There are case reports of dexmedetomidine being used to treat intractable pain and delirium at the end of life, while still preserving some arousability; however future research is needed to compare its effectiveness compared with more standard therapies. Although many patients are on opioids prior to the initiation of palliative sedation, opioids are not effective at producing sustained sedation. However, opioids should be continued, along with the sedating drug, to avoid opioid withdrawal and to treat unobserved pain. The following lists starting doses for the use of sedating drugs including the bolus dose and a *starting* continuous infusion (CI) rate. The CI rate can be increased as needed to achieve the desired level of sedation. (Note: SC = subcutaneous, gtt = drip rate.)

- Midazolam (SC, IV): 5 mg bolus, 1 mg/hr gtt.
- Lorazepam (SC, IV): 2-5 mg bolus, 0.5-1.0 mg/hr gtt.
- Thiopental (IV): 5-7 mg/kg/hr bolus, then 20-80 mg/hr gtt.
- Pentobarbital (IV): 1-3 mg/kg bolus, 1 mg/kg/hr gtt;
- Phenobarbital (IV, SC): 200 mg bolus (can repeat q10-15 min), then 25 mg/hr gtt.
- Propofol (IV): 20-50 mg bolus (may repeat), 5-10 mg/hr gtt.

Continued Sedation Current hospital monitoring standards for conscious sedation are inappropriate in the dying patient. A general rule is that the depth of sedation can vary, depending on the symptoms being palliated, and prior discussions with the family regarding goals of treatment. Generally, the infusion is initiated and then titrated to a point where the patient appears to be comfortable. Care should be taken to make further adjustments when necessary to facilitate palliative nursing care. Other reported strategies include varying the depth of sedation during the day, providing deeper sedation at night to ensure peaceful rest. Once total sedation is initiated, survival can be quite variable, but generally is brief. Muller-Busch reports survival of 63 +/- 58 hrs after initiation of sedation, Sykes reports 56% of patients survived less than 48 hrs.

References

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