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- Palliative care: definition and scope, frequency of pain and multiple sites of pain, barriers to treatment, and importance of development of evidence-based practice in the management of cancer pain
- Benefit to burden ratio: variation according to stage, ethical issues of physician-assisted suicide and euthanasia, and doctrine of double effect and importance of intent

Palliative care is the multidisciplinary approach to care for a patient whose malignancy is not responsive to curative treatment. The fundamental thought process of this approach is that dying is a natural process, and every attempt is made at improving quality of life. Goals include control of pain as well as social, emotional, psychological, and spiritual support to improve quality of life for patients and their families. Palliative care is most beneficial when initiated early rather than during the last days or weeks of life. Assessment of pain at the end of life is similar to general assessment of pain, an important difference being inclusion of psychosocial assessment. Fears, concomitant depression or anxiety, religious and spiritual

dimensions, and pain's effect on the patient and caregiver are all addressed.

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### End-of-Life Pain Syndromes

Intractable neuropathic pain: Interventional therapies are beneficial. In terms of pharmacologic therapy, lidocaine infusions are useful for intractable neuropathic pain, but severe hepatic or cardiac dysfunction may be contraindications to local anesthetic infusions secondary to potential toxicity. Dexamethasone, methadone, antidepressants, and anticonvulsants have been of benefit.

Malignant bone pain: Dexamethasone, bisphosphonates, radiation therapy, orthotics, and physical therapy are used to treat malignant bone pain. High doses of opioids or sedation are sometimes used for movement-associated bone pain.

Opioid neurotoxicity: Symptoms include myoclonus, seizures, delirium, and hyperalgesia. Treatment includes adding a benzodiazepine, opioid rotation, and reducing dose of current opioid. Switching to intrathecal opioids should be considered.

Malignant intestinal obstruction: Palliative surgery is sometimes beneficial, as are nonoperative measures such as octreotide, nasogastric suctioning, and venting gastrostomy. Dexamethasone for nausea and scopolamine for secretions are of benefit as well.

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## End-of-Life Symptoms Besides Pain

**Depression:** Physical symptoms of depression such as fatigue and anorexia are often mistaken for symptoms of the cancer alone. Psychological symptoms pointing to the correct diagnosis include loss of self-worth, hopelessness, and in the more severe form, suicidal ideation. Patients should be asked about depression during palliative care visits. Selective serotonin reuptake inhibitors may take 2–4 weeks for onset, but other antidepressants such as serotonin-norepinephrine reuptake inhibitors, mirtazapine, and bupropion have faster onset of action. Methylphenidate or other stimulants with their rapid onset of action may be more beneficial for patients with days to weeks of life remaining as addiction and withdrawal is not of concern.

**Anxiety:** Anxiety in cancer patients can be secondary to medication use (bronchodilators, neuroleptics, corticosteroids, and others), inadequate pain control, pheochromocytomas, hypoxia, dyspnea, thyroid conditions, sepsis, and hypoglycemia. Benzodiazepines are used for treatment, and haloperidol has been used with success for immediate effect.

**Dyspnea:** “Air hunger” is a common phenomenon at the end of life. Non-pharmacologic measures include bedside fans and psychological support. Pharmacologic measures include small doses of opioids and short-acting benzodiazepines.

**Airway secretions:** Positioning patient on his or her side and stopping unnecessary intravenous fluids and enteral feedings are first measures. “Death rattle” is often more disturbing to family

than patients themselves. Glycopyrrolate (intravenous, subcutaneous, or oral) is the preferred anticholinergic due to fewer central symptoms. Scopolamine patches are a second option for patients being managed at home.

**Nausea:** Opioid rotation for opioid-induced nausea may be used. Nausea may be secondary to cancer treatment or cancer itself. To treat the latter, therapies that may improve symptoms include haloperidol, oral or rectal prochlorperazine, dexamethasone, scopolamine, meclizine, and ondansetron.

**Seizures:** IV or subcutaneous lorazepam may be used to treat and prevent seizures for days. For patients who cannot take oral medications and are being transitioned at home without intravenous access, rectal diazepam and phenobarbital are options.

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## Additional Reading

- Davis MP, Hallerberg G, Palliative Medicine Study Group of the Multinational Association of Supportive Care in Cancer. A systematic review of the treatment of nausea and/or vomiting in cancer unrelated to chemotherapy or radiation. *J Pain Symptom Manage.* 2010;39:756.
- Lokker ME, van Zuylen L, van der Rijt CC, van der Heide A. Prevalence, impact, and treatment of death rattle: a systematic review. *J Pain Symptom Manage.* 2014;47:105.
- Reichmann JP, Kirkbride MS. Reviewing the evidence for using continuous subcutaneous metoclopramide and ondansetron to treat nausea & vomiting during pregnancy. *Manag Care.* 2012;21:44.
- Wee B, Hillier R. Interventions for noisy breathing in patients near to death. *Cochrane Database Syst Rev.* 2008; CD005177.