TABLE 10-5 MEDICATIONS FOR THE MANAGEMENT OF CONSTIPATION

Intervention	Dose	Comment
Stimulant laxatives		These agents directly stimulate peristalsis and may reduce colonic absorption of water.
Prune juice	120–240 mL/d	Work in 6–12 h.
Senna (Senokot)	2–8 tablets PO bid	
Bisacodyl	5–15 mg/d PO, PR	
Osmotic laxatives		These agents are not absorbed. They attract and retain water in the gastrointestinal tract.
Lactulose	15–30 mL PO q4–8h	Lactulose may cause flatulence and bloating.
Magnesium hydroxide (Milk of Magnesia)	15–30 mL/d PO	Lactulose works in 1 day, magnesium products in 6 h.
Magnesium citrate	125–250 mL/d PO	
Stool softeners		These agents work by increasing water secretion and as detergents, increasing water penetration into the stool.
Sodium docusate (Colace)	300–600 mg/d PO	Work in 1–3 days.
Calcium docusate	300–600 mg/d PO	
Suppositories and enemas		
Bisacodyl	10–15 PR qd	
Sodium phosphate enema	PR qd	Fixed dose, 4.5 oz, Fleet's.

TABLE 10-6 MEDICATIONS FOR THE MANAGEMENT OF DYSPNEA

Intervention	Dose	Comments
Weak opioids		For patients with mild dyspnea
Codeine (or codeine with 325 mg acetaminophen)	30 mg PO q4h	For opioid-naïve patients
Hydrocodone	5 mg PO q4h	
Strong opioids		For opioid-naïve patients with moderate to severe dyspnea
Morphine	5–10 mg PO q4h 30–50% of baseline opioid dose q4h	For patients already taking opioids for pain or other symptoms
Oxycodone	5–10 mg PO q4h	
Hydromorphone	1–2 mg PO q4h	
Anxiolytics		Give a dose every hour until the patient is relaxed, then provide a dose for maintenance
Lorazepam	0.5–2.0 mg PO/SL/IV qh then q4–6h	
Clonazepam	0.25–2.0 mg PO q12h	
Midazolam	0.5 mg IV q15min	

sedating than haloperidol. When decreased motility is suspected, metoclopramide can be an effective treatment. When inflammation of the GI tract is suspected, glucocorticoids such as dexamethasone are an appropriate treatment. For nausea that follows chemotherapy and radiation therapy, one of the 5-HT_3 receptor antagonists (ondansetron, granisetron, dolasetron, palonosetron) is recommended. Studies suggest palonosetron has higher receptor binding affinity and clinical superiority to the other 5-HT_3 receptor antagonists. Clinicians should attempt prevention of postchemotherapy nausea rather than provide treatment after the fact. Current clinical guidelines recommend tailoring the strength of treatments to the specific emetic risk posed by a specific chemotherapy drug. When a vestibular cause (such as "motion sickness" or labyrinthitis) is suspected, antihistamines such as meclizine (whose primary side effect is drowsiness) or anticholinergics such as scopolamine can be effective. In anticipatory nausea, a benzodiazepine such as lorazepam is indicated. As with antihistamines, drowsiness and confusion are the main side effects.

Dyspnea • ***FREQUENCY*** Dyspnea is a subjective experience of being short of breath. Frequencies vary among causes of death, but it can affect 80–90% of dying patients with lung cancer, COPD, and heart disease. Dyspnea is among the most distressing physical symptoms and can be even more distressing than pain.

ASSESSMENT As with pain, dyspnea is a subjective experience that may not correlate with objective measures of Po_2, Pco_2, or respiratory rate. Consequently, measurements of oxygen saturation through pulse oximetry or blood gases are rarely helpful in guiding therapy. Despite the limitations of existing assessment methods, physicians should regularly assess and document patients' experience of dyspnea and its intensity. Guidelines recommend visual or analogue dyspnea scales to assess the severity of symptoms and the effects of treatment. Potentially reversible or treatable causes of dyspnea include infection, pleural effusions, pulmonary emboli, pulmonary edema, asthma, and tumor encroachment on the airway. However, the risk-versus-benefit ratio of the diagnostic and therapeutic interventions for patients with little time left to live must be considered carefully before one undertakes diagnostic steps. Frequently, the specific etiology cannot be identified, and dyspnea is the consequence of progression of the underlying disease that cannot be treated. The anxiety caused by dyspnea and the choking sensation can significantly exacerbate the underlying dyspnea in a negatively reinforcing cycle.

INTERVENTIONS When reversible or treatable etiologies are diagnosed, they should be treated as long as the side effects of treatment, such as repeated drainage of effusions or anticoagulants, are less burdensome than the dyspnea itself. More aggressive treatments such as stenting a bronchial lesion may be warranted if it is clear that the dyspnea is due to tumor invasion at that site and if the patient and family understand the risks of such a procedure. Usually, treatment will be symptomatic (Table 10-6). A dyspnea scale and careful monitoring should guide dose adjustment. Low-dose opioids reduce the sensitivity of the central respiratory center and the sensation of dyspnea. If patients are not receiving opioids, weak opioids can be initiated; if patients are already receiving opioids, morphine or other strong opioids should be used. Controlled trials do not support the use of nebulized opioids for dyspnea at the end of life. Phenothiazines and chlorpromazine may be helpful when combined with opioids. Benzodiazepines can be helpful if anxiety is present but should be neither used as first-line therapy nor used alone in the treatment of dyspnea. If the patient has a history of COPD or asthma, inhaled bronchodilators and glucocorticoids may be helpful. If the patient has pulmonary edema due to heart failure, diuresis with a medication such as furosemide is indicated. Excess secretions can be dried with scopolamine, transdermally or intravenously. Use of oxygen is controversial. There are conflicting data on its effectiveness for patients with proven hypoxemia. But there is no clear benefit of oxygen compared to room air for nonhypoxemic patients. Noninvasive positive-pressure ventilation using a facemask or nasal plugs may be used for some patients for symptom relief. For some families and patients, oxygen is distressing; for others, it is reassuring. More general interventions that medical staff can do include sitting the patient upright, removing smoke or other irritants such as perfume, ensuring a supply of fresh air with sufficient humidity, and minimizing other factors that can increase anxiety.

Fatigue • ***FREQUENCY*** More than 90% of terminally ill patients experience fatigue and/or weakness. Fatigue is one of the most commonly reported symptoms of cancer treatment as well as in the palliative care of multiple sclerosis, COPD, heart failure, and HIV. Fatigue frequently is cited as among the most distressing symptoms.