Bowel Obstruction and Delirium:
Managing Difficult Symptoms at the End of Life

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Palliative care has become an essential component of oncology care, with a focus on maximizing quality of life and optimizing function, as well as promoting pain and symptom management. This article focuses on the care of a patient experiencing bowel obstruction and delirium, two common issues in patients with advanced cancer, and demonstrates the integration of palliative care and oncology care to achieve an individualized care plan. Management focuses on identifying and treating reversible causes and improving quality of life while respecting the patient’s values and goals. Sometimes the causes are not easily identified or treatment of the cause may impair quality of life, at least temporarily. At other times, the causes may be irreversible and the focus is exclusively on quality of life. Determination of best care for individual patients requires synthesis of data from holistic assessment, including the patient’s goals of care and values, as well as knowledge of the patient’s disease state with evidence-based approaches to management.

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Symptoms may be difficult to manage in patients with advanced cancer because of multifaceted etiologies; complex psychosocial patient and family dynamics; conflicting goals of care and treatment; and limited management options related to patient factors (e.g., medication allergies, comorbidities), high cost, and lack of access to care. Managing difficult symptoms often is a catalyst for palliative care consultation. Although palliative care often is believed to be synonymous with end-of-life care, its primary focus is on improving quality of life, maintaining optimal function, and offering the presence of hope, regardless of the stage of disease. Palliative care has become an essential element of oncology care as endorsed by the National Cancer Institute (2008), National Comprehensive Cancer Network (2012), and American Society of Clinical Oncology (Smith et al., 2012). This article presents a case study as an example of integrating palliative care and oncology care around management of bowel obstruction and delirium, two common symptoms seen in patients with advanced disease.

Palliative care is defined as an approach that seeks to improve quality of life and relieve suffering for patients and families who are living with life-threatening illness (National Consensus Project for Quality Palliative Care, 2009; National Quality Forum, 2006; World Health Organization, 1990, 2012). Palliative care focuses on addressing physical, psychosocial, intellectual, and spiritual needs of patients and families throughout the continuum of illness. In particular, care centers on the relief of physical symptoms, support in psychosocial and emotional concerns, discussion of spiritual and existential distress, and advanced care planning. Unlike hospice care, which is limited by a six-month prognosis, palliative care is not restricted to a particular diagnosis or treatment type and may begin at diagnosis. Studies have demonstrated that early integration of palliative care with oncology care benefited patients and families by improving patient-reported quality of life and mood (Bakitas et al., 2009; Temel et al., 2010). Early integration of palliative care also has led to increased documentation of resuscitation preferences, less aggressive care at end of life, and higher survival rate (Bakitas et al., 2009; Connor, Pyenson, Fitch, Spence, & Iwasaki, 2007; Temel et al., 2010). Palliative care acknowledges that symptoms disrupt function and create distress and suffering on many levels for both patients and their families. Comprehensive assessment of symptoms and suffering includes ascertaining relevant information about a patient’s background, values, family relationships, understanding of illness, goals of care, preferences for life-sustaining measures, and
hopes for the future. All of those factors are essential to providing patient- and family-centered information regarding disease status, exploring options for care suitable to patient goals and condition, and fostering shared decision making (Dahlin, 2010).

Case Study Part 1

Jean, a 64-year-old Caucasian woman, was diagnosed with stage III epithelial ovarian cancer four years ago. Her past medical history was significant for type II diabetes. Jean and her husband of 30 years were teachers. They had two grown children: a married daughter in a neighboring town, and a son who was in the military and deployed to Afghanistan. Jean was a Baptist and attended church regularly. She had a great support network from her church community, but no extended family. While participating in a church-sponsored program that encouraged parishioners to do advanced-care planning, Jean completed advance directives, appointing her husband as her proxy decision maker.

Jean's oncology history began four years ago when she developed bloating, nausea, and abdominal discomfort and was diagnosed with ovarian cancer. She underwent debulking surgery followed by chemotherapy. Jean was followed carefully and did well until two years ago, when her disease recurred. She had an initial response to chemotherapy, but her disease progressed despite third- and fourth-line treatment. Jean experienced intermittent nausea, vomiting, and fatigue from the treatments, which led her to apply for disability. During the past six months, Jean noted increasing weight loss and slowly diminishing activity level that caused her to spend increasing amounts of time resting. She then presented with a 24-hour history of increased nausea, vomiting, and midabdominal pain. She tolerated only small amounts of liquids because of generalized, cramping abdominal pain and vomiting after eating. Jean's palliative care team had worked with her in the past regarding fatigue and nausea and was reconsulted by her surgeon when she was admitted to the hospital.

Given Jean's diagnosis and disease course, her symptoms of cramping, midabdominal pain and nausea and vomiting after eating were suspicious for small bowel obstruction. Because of concerns about the extent of her disease, Jean underwent a computed tomography scan that showed evidence of a partial small bowel obstruction with progressive peritoneal and pelvic disease and peritoneal carcinomatosis. Jean and her family were facing multiple decisions that required an updated understanding of her disease state and how it impacted the potential for future disease treatment. Other considerations were her performance status; ability to tolerate and recover from some treatment options; the benefits, burdens, and risks of disease-directed therapies, as well as life-sustaining therapies such as artificial hydration and nutrition; and symptom management plans.

Jean was admitted to the medical oncology service with palliative care consultation. She met with her primary surgeon, who advised Jean that surgical palliative options were not feasible because of the extent of her disease and her declining functional status. Her obstruction was treated with bowel rest, including nasogastric tube for five days, corticosteroids, metoclopramide, octreotide, and IV fluids. Her diabetes remained under control without use of insulin. She slowly improved and could tolerate small amounts of liquids by mouth. The extent of her disease raised the likelihood of recurrent obstruction, and she accepted a venting gastrostomy tube to avoid nasogastric tubes in the future. Jean’s healthcare team also hoped that would allow her to eat small amounts of her favorite foods. Before discharge, Jean received octreotide LAR (long-acting release) depot injection. Jean spoke with her oncologist, who offered additional chemotherapy as a means of keeping her symptoms from worsening and extending her life, but only if Jean was able to maintain weight and demonstrate improved performance status. With that in mind, Jean opted for a four-week trial of home parenteral nutrition, with a plan for reevaluation in four weeks.

For three weeks after leaving the hospital, Jean was able to tolerate small amounts of liquids and very soft solid food such as pudding or mashed potatoes. She had minimal nausea and vomited less than twice per week. She and her husband were managing total parenteral nutrition with help from visiting nurses.

Malignant Bowel Obstruction

Bowel obstruction is defined as a failure of intestinal contents to progress normally through the gastrointestinal (GI) tract. Obstructions may be partial or complete and occur in single or multiple sites. The highest incidence of obstruction occurs in patients with ovarian cancer (5%–42%), but may occur in patients with colon cancer (4%–24%) and other malignancies such as breast, lung, and melanoma (3%–15%) (Ripamonti & Mercandante, 2010).

Etiology

The causes of bowel obstruction may be mechanical and functional, and more than one cause often exists. Figure 1 outlines common causes in patients with cancer. Bowel obstructions disrupt absorption of nutrients and fluid, as well as elimination of solid waste from the body. With restricted flow of intestinal contents, distention above the obstruction may cause damage to the intestinal wall and inflammation (Ripamonti, Esson, & Gerdes, 2008; Roeland & von Gunten, 2009) (see Figure 2).
Signs and Symptoms

Abdominal pain, nausea and vomiting, abdominal distention, and altered bowel function presenting as constipation or overflow diarrhea are common signs and symptoms of bowel obstruction. The location, extent, and progression of the obstruction and other factors in the patient's history will determine the exact symptoms and their severity (Economou, 2010; Ripamonte & Mercandante, 2010) (see Table 1).

Diagnostic Testing

From a palliative care perspective, the purpose of diagnostic testing is to gain information that will impact decision making. In Jean's case, an appropriate goal of diagnostic testing was to determine whether she had an obstruction, its location, extent, and other factors that may influence treatment options. A plain film of the abdomen may illustrate the location and extent of the obstruction by showing dilated bowel loops above the obstruction. A computed tomography scan will show dilated bowel loops above the obstruction, specific tumor locations, and extent of abdominal disease. Contrast studies may not be done if complete obstruction is suspected because they could worsen the obstruction. Endoscopy is another approach to evaluation, but limits identification of disease outside the gastrointestinal tract (Ripamonte & Mercandante, 2010; Roeland & von Gunten, 2009).

Goals of Care

The immediate goal of managing a bowel obstruction is to restore bowel function as measured by the patient’s ability to tolerate oral intake, if possible. Concurrent goals are to maintain hydration, electrolyte balance, and nutrition; alleviate pain; and minimize nausea and vomiting (Ripamonte et al., 2008). Palliative care focuses on addressing symptoms and the broader distress caused by the new crisis of disease progression and how that impacts goals of care and quality of life.

Management Options

Surgery to resect or bypass the bowel obstruction may be considered if the obstruction is localized and the patient has a good performance status and life expectancy longer than two months. Complication rates have been estimated at 30%–90% and mortality at 20%–40% (Roeland & von Gunten, 2009). Surgery is not a viable option if the prognosis is poor, multiple sites of obstruction are present, or evidence of distant metastases or carcinomatosis exists. In cases of complete obstruction, strangulation of the bowel, or lack of response to more conservative treatment, the surgical option may be reconsidered despite other unfavorable factors (Jatoi, Podratz, Gill, & Hartmann, 2004; Ripamonti & Mercandante, 2010).

For patients with high performance status and life expectancy longer than 30 days, insertion of self-expanding metal stents by endoscopy or radiology may be considered if the obstruction is at gastric outlet, proximal small bowel, or colon. Stent insertion, which is less invasive than surgery, relieves symptoms in 75% of patients and has favorable costs over surgery; complications include perforation, bleeding, stent migration, and reobstruction (Jatoi et al., 2004; Ripamonti & Mercandante, 2010).

Medical management often is the first line of treatment of malignant bowel obstruction. It consists of bowel rest, symptom management, and hydration and electrolyte replacement. Bowel rest, decompression, and relief of nausea and vomiting are accomplished via insertion of a nasogastric tube. Prolonged nasogastric intubation is possible, but can result in psychological distress; pain from nasal and pharyngeal irritation; or infections, difficulty clearing oral secretions, and aspiration pneumonias (Ripamonti & Mercandante, 2010; Roeland & von Gunten, 2009). An alternative to long-term nasogastric tube use is a gastrostomy tube (g-tube) placed surgically or percutaneously during an endoscopic procedure to allow drainage of gastric contents. Such venting g-tubes may allow for some oral intake, which can be emotionally and psychosocially satisfying for the patient and family while providing ongoing decompression. Large volume ascites and tumor infiltration of the stomach may preclude g-tube placement. Complications include pain at the insertion site, leakage of gastric fluid with resulting skin irritation, and the need for periodic replacement if used for long-term therapy (Jatoi et al., 2004).

TABLE 1. Symptoms of Gastrointestinal Tract Obstructions

<table>
<thead>
<tr>
<th>Site</th>
<th>Vomiting</th>
<th>Pain</th>
<th>Distention</th>
<th>Bowel Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pylorus or duodenum (11%)</td>
<td>Severe high volume</td>
<td>Minimal</td>
<td>Minimal</td>
<td>Succession (splashing fluid)</td>
</tr>
<tr>
<td>Small intestine (48%)</td>
<td>Moderate to severe</td>
<td>Colicky (upper central abdomen)</td>
<td>Moderate</td>
<td>Hyperactive</td>
</tr>
<tr>
<td>Large intestine (37%)</td>
<td>Late effect</td>
<td>Colicky (lower central abdomen)</td>
<td>Severe</td>
<td>Borborygmi (rumbling or gurgling)</td>
</tr>
</tbody>
</table>

Note. Based on information from Economou, 2010.
Symptom management focuses on relief of pain, nausea and vomiting, and abdominal distention. During the acute phase of managing a bowel obstruction, parenteral administration of medications and fluids helps to avoid uncertain GI absorption. Opioids are the mainstay of pain management. Metoclopramide is considered the antiemetic of choice in partial obstructions because of its prokinetic effect. Other antiemetics include serotonin antagonists (e.g., ondansetron, granisetron) and dopamine antagonists (e.g., prochlorperazine, haloperidol), which should not be used with metoclopramide because of an increased risk for akathisia and other extrapyramidal effects. Corticosteroids offer analgesic, anti-inflammatory, and antiemetic benefits (Ripamonti & Mercandante, 2010).

Antisecretory drugs are used to decrease secretion of GI fluids, diminishing distention, and vomiting. Some of those medications also may reduce peristalsis, thereby relieving abdominal cramping. Anticholinergic medications such as scopolamine and glycopyrrolate often are used.

Octreotide, a somatostatin analog, decreases GI secretions and peristalsis by inhibiting release and action of the GI hormones vasopressin and gastrin. Studies have shown octreotide to be more effective than anticholinergic medications in relieving obstructive symptoms (Prommer, 2008; Ripamonti et al., 2008). Octreotide is administered via IV or subcutaneously. Because of its short half-life, repeat or continuous dosing is required. A depot form given once monthly is an alternative. Initial depot dosing takes about 14 days to establish effectiveness, so short-acting doses should be continued until the depot takes effect. Although octreotide has an established role in bowel obstruction management, cost may limit its use in some settings (Prommer, 2008; Ripamonti et al., 2008).

**Role of Artificial Hydration and Nutrition**

Maintaining hydration and electrolyte balance with use of IV fluids is an accepted practice during the acute phase of bowel obstruction management. Long-term use of parenteral nutrition and IV hydration is more controversial (Fan, 2007). Short-term improvements in quality of life, performance status, and marginal survival benefit may be outweighed by cost, burdensome administration requirements, complications of line infections and thrombosis, and fluid overload. Those therapies also may be a barrier to hospice care. The use of artificial hydration and nutrition beyond the acute phase of management is a highly individual decision based on goals of care; prognosis; and perceived benefits, burdens, and outcomes of the interventions (Dy, 2006; Fan, 2007; Hoda, Jatoi, Burnes, Loprinzi, & Kelly, 2005).

**Case Study Part 2**

In the fourth week after hospitalization, Jean developed more abdominal pain, which was relieved with use of oral morphine. With the increasing pain, Jean developed nausea and had more frequent vomiting. In addition, her urine output decreased. One morning, Jean's husband found her incoherent and hallucinating and brought her back to the hospital.

At the hospital, Jean was hard to arouse and unable to answer questions coherently. She screened positive for delirium using the Confusion Assessment Method. Jean had previously identified her husband as her durable power of attorney for health care, and he was consulted on all treatment decisions. Jean's abdomen was distended with enlarged liver and jaundice noted, and her healthcare providers were concerned that she was reobstructing. Her family decided that she would want to find out why she was hallucinating. They hoped the cause could be easily addressed. Testing included an abdominal computed tomography scan without contrast to rule out reobstruction, as well as blood work to check renal and hepatic function and blood counts. Her admission laboratory tests showed elevated blood urea nitrogen, creatinine, and liver function. No intestinal obstruction was identified, but Jean was found to have extensive liver metastases. After discussing those findings and options for care with the oncology and palliative care staff, Jean's family decided that home hospice care was what she would want. Her son was notified and requested an emergency leave.

Jean's family stayed with her and provided a reassuring presence. She received haloperidol scheduled and as needed. Her hallucinations cleared, although her speech was intermittently incoherent and she was forgetful. Because haloperidol is a dopamine antagonist that also has an antiemetic effect and may interact with metoclopramide, the metoclopramide was discontinued. Total parenteral nutrition also was discontinued, but Jean received limited IV fluids daily to sustain her until the expected arrival of her son in five days. Jean died three days after he arrived.
Delirium

Delirium is one of the most frequent neuropsychiatric complications in patients with advanced cancer (Breitbart & Alici, 2010). In a prospective series of 104 patients with advanced cancer consecutively admitted to a tertiary palliative care unit, delirium was present in 42% on admission and developed in 45% of the remaining patients; in addition, delirium was present in 88% of patients who died (Lawlor et al., 2000). The diagnosis of delirium has been shown to significantly worsen life expectancy in patients with advanced cancer (Caraceni et al., 2000; Lawlor et al., 2000). About 80% of patients with cancer may have delirium near death (Breitbart & Alici, 2010). Delirium at the end of life may present as terminal agitation and restlessness. Expressions of near death awareness should be distinguished from delirium.

Delirium is defined by the American Psychiatric Association (2000) as an acute, altered level of consciousness with changes in cognition and attention caused by physiologic disturbance. Delirium may present as reduced ability to focus, hold, or shift attention; lack of environmental awareness or hypervigilance; memory deficits; perceptual disturbances (e.g., delusions, hallucinations); incoherent speech; and altered sleep-wake cycles. Delirium may be termed confusion, agitation, or forgetfulness. The changes in attention and cognition may fluctuate over short periods of time. Delirium may present as a hyperactive state with agitated behavior, picking at clothes and bed covers, rambling, and loud incoherent speech. Delirium also may be a hypoactive state with lethargy, little spontaneous movement, soft incoherent speech, anxiety, or fearfulness (Breitbart & Alici, 2010; de Rooij, Schuurmans, van der Mast, & Levi, 2005). Fifty percent of patients with delirium will have a mixed form with features of hyperactive and hypoactive states (Heidrich & English, 2010).

Delirium is distinct from dementia and psychoses. For example, Jean experienced an acute change in mental status, whereas dementia is a chronic and progressive loss of intellectual (executive) function. Psychosis is a severe mental disorder in which thought and emotions are so impaired that contact is lost with external reality. Psychosis also can present as relapsing and remitting hallucinations and delusions. In both dementia and psychosis, patients maintain a normal state of arousal and level of consciousness, in contrast to the waxing and waning level of awareness common in delirium (Breitbart & Alici, 2010).

Etiology

Factors that increase the risk of developing delirium include being older than 65 years, history of dementia, prior episode of delirium, depression, declining functional status, sensory impairments, decreased oral intake, and drug or alcohol abuse. Each episode of delirium may have multiple precipitating factors (Lawlor et al., 2000) (see Figure 3). In more than 50% of terminally ill patients, no specific cause may be identified; however, 30%–60% of cases of delirium may be reversible in patients with advanced cancer (Breitbart & Alici, 2008). Hyperactive and mixed delirium often are attributable to medication reactions (e.g., benzodiazepines, opioids, anticholinergics), whereas dehydration and encephalopathies are more likely to induce hypoactive delirium (Bush & Bruera, 2009). Despite the multiple possible causes, some debate exists as to whether a final common neurophysiologic pathway is present. Evaluation for potential reversible precipitating factors is key to delirium management (de Rooij et al., 2005). In Jean’s case, multiple likely causes existed for her delirium, including dehydration and metabolic disturbances from nausea and vomiting that may have caused acute kidney decompensation and opioid toxicity.

Assessment

Clinical assessment includes recognizing the clinical features of delirium and evaluating precipitating factors. Despite the prevalence of delirium in patients with serious, life-limiting illness, the condition often is under-recognized and undertreated (Breitbart & Alici, 2008). Assessment over time is critical to recognizing delirium early in its course and monitoring for response to therapies. Many assessment tools are available to assist in screening and monitoring, including the Confusion Assessment Method, Nursing Delirium Screening Scale, Memorial Delirium Assessment Scale, and Mini-Mental State Examination (Wong, Holroyd-Leduc, Simel, & Straus, 2010). Table 2 provides a brief description of commonly used tools. Psychiatric evaluation and consultation may be helpful in assessment, diagnosis, and management.

When delirium is suspected, the first parameters of assessment are environmental safety and identification of a patient-appointed proxy decision maker. The latter is key, but often overlooked. Although patients with mild delirium can maintain capacity to make simple choices, a proxy decision maker should be consulted on more complex issues regarding overall treatment considerations (Breitbart & Alici, 2008).

TABLE 2. Delirium Assessment Tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>Characteristics</th>
<th>Strengths and Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confusion Assessment Method</td>
<td>Assesses nine delirium features: onset, attention, thinking, level of consciousness, memory, orientation, perception, psychomotor, and sleep-wake cycle</td>
<td>Requires observer training Required in palliative care Mainly diagnostic Administration time: five minutes</td>
</tr>
<tr>
<td>Memorial Delirium Assessment Scale</td>
<td>Clinician-rated scale assessing arousal, level of consciousness, and areas of cognitive function</td>
<td>Validated tool Includes cognitive testing and observation Administration time: 10 minutes</td>
</tr>
<tr>
<td>Mini-Mental State Examination</td>
<td>30-item test of cognitive function, but not other features of delirium</td>
<td>Validated tool Assesses cognitive changes over time Administration time: less than five minutes</td>
</tr>
<tr>
<td>Nursing Delirium Screening Scale</td>
<td>Observational screening scale rating orientation, behavior, communication, perception, and psychomotor retardation</td>
<td>Validated tool Administration time: less than two minutes</td>
</tr>
</tbody>
</table>

Note. Based on information from Bush & Bruera, 2009; Heidrich & English, 2010; Wong et al., 2010.
A review of the medical history is essential and should include medication use or changes, other medical problems, and results of recent diagnostic studies (e.g., hematology, chemistries, radiology, microbiology). Physical examination may reveal fever, changes in blood pressure, oxygen saturation, lung congestion, or wounds. Goals of care will determine the amount and type of diagnostic testing used to identify potentially reversible etiologies and the interventions used to treat the causes. If the goal is primarily symptom relief, diagnostic testing and cause-directed interventions might be minimal.

Delirium Management

The goals of managing delirium are to reverse or minimize the symptom, maintain safety for the patient and caregivers, reduce caregiver burden, avoid prolonged hospitalization, and preserve quality of life for the patient and home caregivers (Breitbart & Alici, 2008). Delirium management is multifaceted. Treatment of identified causes should be consistent with the patient’s goals of care. That may include elimination and modification of previously used medications, antibiotics to treat infection, hydration, and other therapies. Other aspects of management are pharmacologic and nonpharmacologic approaches for symptom relief. In particularly challenging cases, consultation with psychiatry may expedite diagnosis and management.

Nonpharmacologic Interventions

Use of nonpharmacologic interventions has demonstrated reduced incidence of delirium, faster symptom relief, and improved cognition and quality of life without an effect on mortality (Breitbart & Alici, 2008). A restful environment that decreases extraneous stimuli may include soft lighting to avoid shadows or music if soothing to the patient, but not television or radio as background noise. The presence of a familiar person such as family or a caregiver and verbal reassurance about personal safety may be calming. Reorientation may be provided by clocks and calendars, verbal reminders about day of week and time of day, and familiar objects from home (e.g., favorite blanket or pillow, pictures). Use of eyeglasses or hearing aids may increase accuracy of sensory inputs. Nonconfrontational redirection is a useful strategy to manage hallucinations and delusions. Avoid validating the content of the hallucination or delusion, but acknowledge the patient’s experience. Provide warning and simple explanations of procedures. Even routine care such as taking blood pressure may require preparation. Avoid use of physical restraints, but use bed alarms and other means to ensure safety. Education of the patient, if possible, and family provides reassurance and assists in maintaining the restful environment (Breitbart & Alici, 2008).

Pharmacologic Management

Although no U.S. Food and Drug Administration–approved medications exist for delirium, antipsychotics are the mainstay of delirium management and relieve perceptual disturbances and agitation (Breitbart & Alici, 2010; Bush & Bruera, 2009). Both conventional and newer atypical antipsychotics are effective. Drug selection is based on availability, dosing forms, side-effect profiles, and cost. Haloperidol is most commonly used in doses of 0.5–2 mg every 1–6 hours up to a total 24-hour dose of 20 mg (Bush & Bruera, 2009; Heidrich & English, 2010). The adverse effects of antipsychotics include sedation, extrapyramidal effects (e.g., akathisia, dystonia, tremor, anxiety), hypotension, anticholinergic effects, weight gain, and QTc prolongation (see Table 3).

Benzodiazepines are not first-line treatment of delirium unless related to alcohol withdrawal. Benzodiazepines often cause paradoxical worsening of delirium (Breitbart & Alici, 2008). Control of hyperactive delirium may require a combination of an antipsychotic and benzodiazepine, but benzodiazepines alone should be avoided.

The incidence of delirium is high in actively dying patients (Lawlor et al., 2000), which is distressing for family as well as patients. Usual management strategies may prove ineffective. Delirium may be a contraindication to home management if it is not well controlled because comfort and safety may be difficult to establish (Breitbart & Alici, 2008). In addition to nonpharmacologic therapies, palliative sedation may be considered in extreme cases (Rietjens et al., 2008).

Conclusion

Jean’s story illustrates the complexity of managing two symptoms that commonly occur in patients with advanced cancer. Integrating palliative and oncology care allows for the formulation of an individualized plan of symptom management that focuses on quality of life by specifically aligning disease management

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>Extrapyramidal Side Effects</th>
<th>Hypotension</th>
<th>Sedation</th>
<th>Weight Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloperidol</td>
<td>0.5–10 mg every 2–12 hours (IV, IM, or oral)</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
<td>–</td>
</tr>
<tr>
<td>Atypical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olanzapine</td>
<td>2.5–5 mg every 12–24 hours (oral or ODT)</td>
<td>Low</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>12.5–100 mg every 12–24 hours (oral)</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Risperidone</td>
<td>0.25–5 mg every 12–24 hours (oral or ODT)</td>
<td>Moderate in doses higher than 6 mg per day</td>
<td>Moderate; main side effect</td>
<td>Moderate</td>
<td></td>
</tr>
</tbody>
</table>

IM—intramuscular; ODT—oral disintegrating tablet
Note. QTc prolongation is a risk with all antipsychotics but is higher with IV haloperidol.
Note. Based on information from Breitbart & Alici, 2010; UpToDate, 2012.
Implications for Practice

- Integration of palliative and oncology care promotes improved quality of life by addressing physical, psychosocial, and spiritual needs of patients and their families.
- In the management of bowel obstructions and delirium, complex decision making involves understanding of multifaceted etiologies, comprehensive assessment, and selection of diagnostic and treatment options based on the patient’s goals of care.
- Oncology nurses are ideally positioned to screen and assess for common symptoms and elicit patients' understanding and concerns regarding disease state and treatment options.

with evidence-based symptom assessment and management and patients' and families' values, preferences, and goals for care. Because patients' choices are only truly informed if they have their desired level of knowledge about the disease and prognosis, providing information about disease, prognosis, possible symptom etiologies, and benefits and burdens of possible interventions are essential to palliative care and oncology collaboration.

The essence of oncology nursing, as with palliative care, is to relieve suffering (National Consensus Project for Quality Palliative Care, 2009). Oncology nurses are ideally positioned to provide ongoing screening for and assessment of common symptoms such as pain, nausea and vomiting, bowel dysfunction, and delirium. Working with patients and families also provides nurses an opportunity to elicit and foster patients' understanding of their situation, hopes for treatment outcomes, and the balance of burdens and benefits of testing and treatments. Through that process, oncology nurses can dispel negative connotations of palliative care and promote comprehensive cancer care with early palliative care (Dahlin, Gallagher, & Temel, 2011). The collaboration of oncology nursing and palliative care optimizes comfort and communication, as well as provides best possible care for patients and their families.

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For Exploration on the Go
Access more information about bowel obstruction in Palliative Practices From A–Z for the Bedside Clinician (2nd ed.) by Peg Esper, MSN, MSA, RN, AOCN®, APRN-BC, and Kim K. Kuebler, MN, RN, APRN-BC (Eds.), by opening a barcode scanner on your smartphone. Point your phone at the code and take a photo. Your phone will link to the content automatically. Retrieve this content at http://esource.ons.org/ProductDetails.aspx?SKU=INPU0584.

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