

On-Demand Clinical News

Palliative Emergencies

By: Nate Hedrick, PharmD

In most medical specialties, emergencies are those situations which, if left untreated, will immediately threaten life. In palliative care, where death is an expected outcome, emergencies are those conditions, which if left untreated, will seriously threaten the quality of life remaining. Prolongation of life is not usually a realistic aim. As clinicians, our primary focus should be preparation for and recognition of these palliative emergencies. Most hospice and palliative patients reside in a home setting where rapid onset of new symptoms can be very stressful. Because of this, education of the patient and their caregivers is critical to handling an emergency in the least traumatic way possible. The following are a few of the most common palliative emergencies and how to prepare for and treat the situation should it arise.

Spinal Cord Compression

The vertebral column is the most common site for skeletal metastases. These metastases can grow into skeletal tumors that push on the spinal cord and cause spinal cord compression. Around 5% of patients with cancer develop some form of this compression. Look for rapidly escalating back pain, especially with stiffness and weakness. This pain is usually difficult to manage with opioid escalation alone. Later stage symptoms usually include tingling and/or numbness in the limbs. MRI confirmation is the gold standard for definitive diagnosis, but a high degree of suspicion usually warrants treatment. Once spinal cord compression is recognized, treatment with an oral or IV corticosteroid should proceed immediately. Many patients may also benefit from irradiation of the tumor site or surgical removal of the metastases. Patient wishes and prognosis should be considered when determining which therapies are appropriate.

Hemorrhage

Hemorrhage as a result of advanced cancer is highly distressing for the patient, caregivers and staff. Severe acute hemorrhage as a terminal event is relatively rare, although the conditions that can lead to it are relatively common. Clinically significant bleeding occurs in 6% to 10% of patients with advanced cancer, and up to 3% of lung cancer patients have terminal massive hemoptysis. Plan and anticipate the probability of hemorrhage and have a strategy for dealing with it.

Symptom Management in Bowel Obstruction

By: Meri Madison, PharmD

Most hospice clinicians have seen bowel obstruction before, either written in a patient's past medical history or actively diagnosed while on a palliative care or hospice service. Bowel obstructions can affect patients of all ages and represent approximately 5-15% of all cases of severe onset abdominal pain, requiring admission to the hospital.

Bowel obstructions are defined as a blockage of the forward flow of gastric and intestinal contents through the GI tract, caused by ineffective motility of the bowel. The majority of malignant obstruction occurs in ovarian, pancreatic, and colorectal cancers, and in a minority of patients, the obstructions are unrelated to the cancer itself. Underlying causes include but are not limited to intraabdominal bands, adhesions after surgical procedures, fecal impaction after chronic opioid use and/or post radiation fibrosis.

An obstruction can be mechanical, originating from tumor growth/physical obstruction. Or they can be functional, defined as tumor infiltration of the bowel wall muscle or nerves, often leading to paralytic ileus. They can be partial or complete obstructions. Some partial obstructions will progress into complete obstructions, marked by increased symptoms over a 1-2 week period.

It is not advised to diagnose a patient based on bowel sounds alone; instead, look at the full picture with other GI symptoms- gas, nausea/vomiting, presence/absence of bowel movements. Characteristic signs of a bowel obstruction include high pitched "tinkling" bowel sounds and colic-type pain caused by smooth muscle spasms and bowel wall distension. Diarrhea can be a symptom of partial obstruction, and lack of bowel movement can be a symptom of complete obstruction.

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Treatment of bowel obstruction in palliative/hospice care settings can be a delicate balance and influenced by the level of obstruction, clinical stage of cancer, presence of ascites and palliative performance score (PPS). Below is a chart that gives preferred symptom management medications to treat the common symptoms:

SYMPTOM:	PREFERRED TREATMENT(S):	IMPORTANT TO NOTE:
Generalized Pain	Morphine	<i>Oxycodone IR tabs preferred in renal impairment</i>
Inflammation	Dexamethasone	<i>Also helps with nausea</i>
Nausea/Vomiting (N/V)	Metoclopramide Haloperidol Promethazine/Prochlorperazine	<i>AVOID use of metoclopramide in partial bowel obstructions</i>
Colic-type Pain/Spasms	Anticholinergics: Hyoscyamine, Atropine	<i>Scop patch and glycopyrrolate considered 3rd line due to cost/poor absorption issues</i>
Increased Gastric Secretions	Ranitidine	<i>Research has shown similar efficacy and more cost effective results than octreotide injection</i>

Typically, a combination of the above symptom relief medications is key to the patient's comfort, and potentially to the successful reversal of a partial bowel obstruction, without the need for surgical intervention. There may be a select few palliative patients with a good PPS, slow progression of cancer, and greater than 6 month prognosis that could benefit from surgery, but typically the risks outweigh the benefits.

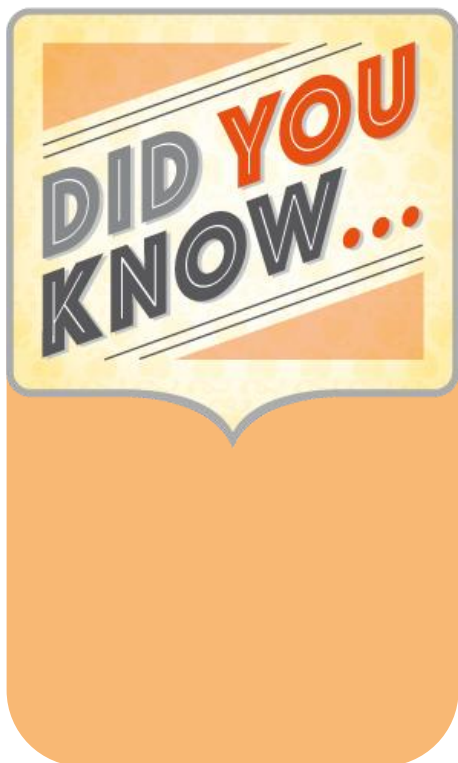
As an expert palliative care/hospice clinician, you can make a differential diagnosis of bowel obstruction right in the patient's home through bowel sound monitoring and identification of the characteristic signs/symptoms. This is key to early detection and appropriate treatment of your patients. Don't forget! Be proactive and establish each patient with an opioid order on a laxative regimen such as Senna S 1-2 tabs PO BID upon admission, and monitor frequently for signs of constipation. This is a symptom that in most cases is preventable, and its prevention can improve your patient's quality of life in their last days.

More is not always better...

Mirtazapine (Remeron®) is an antidepressant medication that is often used to help with insomnia. The usual starting dose is 15mg PO QHS. The catch is that a 30mg or higher dose is actually LESS sedating than the 15mg dose. How can that be?

Mirtazapine affects several neurotransmitters and receptors, but produces its sedative properties by affecting our histamine receptors. At doses up to 15mg, mirtazapine blocks histamine receptors (sedating effects) until they are saturated. It also blocks alpha2-adrenergic receptors (stimulating effects from increased norepinephrine) at this dose. However, at higher doses, more alpha2-adrenergic receptor blockade (more norepinephrine release) occurs, while there is no additional histamine blockade. It is the increase in norepinephrine that accounts for added stimulation - norepinephrine mobilizes us for action! The norepinephrine increase with increasing mirtazapine doses overwhelms the antihistamine activity, and the drug becomes far less sedating.

Counsel your patients who are taking mirtazapine that if a single dose doesn't seem to be doing the trick for insomnia, taking two can make it worse!



Compressive dressings, hemostatic agents, and gauze soaked with vasoconstrictors like epinephrine are all excellent ways to manage severe external bleeding. Other practical considerations include using dark sheets and towels, keeping the patient warm with dark blankets, and maintaining an adequate airway with positioning. Internal bleeding can be managed by eliminating medications such as anticoagulants and antithrombotic agents that may worsen the risk of bleeding. Tranexamic acid has also been used orally for the prevention of major bleeding in patients who may be susceptible.

Hypercalcemia

Excessive unbound calcium in the blood is the most common life-threatening metabolic disorder in patients with malignancy. It can occur in up to 40% of cancer patients and is not as easy to recognize as other palliative emergencies. Early signs include rather non-descript symptoms of nausea, anorexia, constipation, and excessive thirst with polyuria. Later, symptoms progress to include gross dehydration, confusion, drowsiness, eventual coma, and finally cardiac arrhythmias that can lead to death. The only way to definitively diagnose hypercalcemia is by measuring the blood's free calcium levels with a lab draw. Levels greater than 11mg/dL will start to cause symptoms; levels greater than 14mg/dL start to become life-threatening. Treatment involves fluid resuscitation to re-hydrate the patient followed by a bisphosphonate infusion. Calcium levels will not be reliable for 48 hours after infusion, so repeat dosing is usually not indicated for several days. Once the patient has achieved a normal calcium level, prevention of reoccurrence through treatment of the underlying malignancy or a maintenance (commonly oral) bisphosphonate is usually recommended.

There are many situations in palliative and hospice care that can quickly turn into an emergency. Anticipating these events and preparing the family for the possibility of them occurring is a key component to the proper care of our patients. If you would like more information on palliative emergencies check out our June Lunch and Learn in our archives, utilize one of the references below, or contract one of our ProCare Clinical Pharmacists anytime.

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“Keep your face toward the sun and you will never see the shadows.”



Upcoming Lunch and Learn Presentations

September

“Parkinson’s Disease: Management at End of Life”

Presenter: Joelle Potts, PharmD, CGP

Tuesday, September 12, 2017 at 3:00pm ET; Wednesday, September 13, 2017 at 12:00pm ET

October

“Considering Medication Allergies – The Good, The Bad, and The Itchy”

Presenter: Jennifer Procaccino, PharmD, BCPS

Tuesday, October 10, 2017 at 3:00pm ET; Wednesday, October 11, 2017 at 12:00pm ET

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