

Managing chronic pain in cancer survivors

Thorough assessment is the first step in pain management for these patients.

By Lauren Carter, MSN, ARNP



CANCER SURVIVORS, who are at a higher risk of chronic pain than the general population, require detailed assessment to help identify the cause of their pain. That assessment is the first step in developing a comprehensive treatment plan that controls your patient's pain, improves quality of life, and increases functional status with minimal risks and adverse effects.

Definitions are important

First, let's define some terms. Cancer survivors, can be defined in two ways:

1. someone who has completed treatment and shows no evi-



LEARNING OBJECTIVES

1. Identify possible causes of pain in cancer survivors.
2. Describe pain assessment in cancer survivors.
3. Explain the pharmacologic and nonpharmacologic management of pain in cancer survivors.

The author and planners of this CNE activity have disclosed no relevant financial relationships with any commercial companies pertaining to this activity. See the last page of the article to learn how to earn CNE credit.

Expiration: 4/1/20

2. someone at any point on the spectrum from diagnosis to death. Pain can be categorized as acute, chronic, neuropathic, visceral, or somatic. It can be described as stabbing, throbbing, aching, cramping, and squeezing. (See *Defining pain.*)

No matter how it's described or defined, the experience of pain is unique to each person and can be complicated by emotional, physical, psychosocial, and spiritual issues.

This article focuses on cancer survivors who show no evidence of disease but are experiencing chronic pain.

Risk for undertreatment

Various factors can put cancer survivors at risk for undertreatment and influence how they experience pain. Everything from emotional and spiritual distress to age, race, ethnicity, gender, and social support can impact pain assessment, perception, and management.

Patients at especially high risk of undertreatment include the elderly, children, minorities, and those who are active drug abusers or have a history of drug abuse. Older patients, for example, can be at a higher risk of an incomplete or difficult pain assessment because of barriers such as memory or hearing loss, confusion, or fear of being a burden. Studies have shown that elderly men, in particular, are more likely to be stoic in their expression of pain, which may require you to be more creative in your pain assessment.

Ethnic, racial, and cultural minorities face a risk of underassessment and undertreatment because of language barriers or a lack of trust in the healthcare team. Provider bias can also create barriers to pain management.

Patients may be reluctant to report pain if they recognize it as a possible sign of cancer recurrence. Cost and availability of treatment also create barriers to care, as can a lack of social support to help with tasks such as transportation and medication administration.

Cognitive barriers can lead to a patient misunderstanding the illness or the source of the pain. And feeling a loss of control or of being abandoned by God can intensify the pain experience, as can depression and anxiety.

In some cases, a patient may be undertreated due to the clinician's lack of pain management education or a reluctance to prescribe opioids.

Possible pain sources

If your patient complains of new acute pain, this might indicate a



Defining pain

In a general sense, pain can be defined as an unpleasant sensory or emotional experience associated with actual or potential tissue damage. However, proper categorization and description of pain leads to a better understanding of the patient's experience and aids in developing an effective plan of care.

Pain can be acute or chronic:

Acute pain occurs for a brief period and can be caused by injury, inflammation, or surgery.

Chronic pain lasts for a longer time and in many cases is caused by a chronic disease or condition, such as cancer.

Nociceptive pain results from injury or potential injury and can be further subcategorized as somatic or visceral pain.

- Somatic pain occurs in the bone, skin, muscle, or connective tissue and is easily localized. Patients may describe it as aching, throbbing, sharp, stabbing, sore, or dull. Examples include muscle aches and lacerations.
- Visceral pain stems from organ damage or potential damage and is poorly localized, so identifying injury location based on pain alone is difficult. It's often described as cramping, deep, squeezing, or bloating.

Neuropathic pain originates from the nerves and follows the dermatome of the affected nerve. For example, a cancer tumor at the S-2 (sacral) level may cause pain along the S-2 dermatome. Neuropathic pain may be described as burning, electric, shooting, tingling, or radiating.

cancer recurrence and should be promptly assessed. If the pain is severe and uncontrolled, your patient may require emergency medical treatment.

However, many cancer survivors experience chronic pain, and your knowledge of cancer pain syndromes helps identify the cause of pain, and in turn can help determine the best treatment. Cancer and its treatment can be debilitating, which also may contribute to pain syndromes and loss of functional ability.

- **Surgery** may contribute to chronic pain syndromes. For example, 20% to 30% of patients have chronic neuropathic pain in the chest wall after mastectomy.

Many patients also experience chronic neuropathic or somatic pain after thoracotomy. In addition, procedures that result in adhesions, lymphedema, nerve damage, or other complications can contribute to ongoing pain in cancer survivors.

- **Radiation** can cause chronic pain related to the location of radiation therapy. For example, brachial plexus damage during radiation can cause ongoing neuropathic pain called brachial plexopathy. Radiation of the lower intestine can cause ongoing radiation proctitis, and osteoradionecrosis may result from radiation for head and neck cancer.
- **Chemotherapy** can induce pe-

ripheral neuropathy due to neurotoxicity. This generally symmetrical neuropathic pain in the hands and feet depends on the type of chemotherapy, dose, and duration of exposure.

- **Hormonal therapy** may lead to joint pain, myalgia, and osteoporotic compression fractures.
- **Steroids** put patients at risk for osteoporosis, osteonecrosis, and pathologic fractures.
- **Stem-cell transplantation** increases the risk for graft vs. host disease (GVHD). Patients with GVHD may experience GI pain and distress, joint and muscle aches, and other symptoms affecting areas such as the liver, skin, and eyes.

If you're unable to identify a specific cause for your patient's pain related to his or her cancer history, consider that the pain may not be cancer related. It could be caused by another illness or related to a patient seeking opioids for misuse.

Pain assessment

Because pain can indicate recurrent disease, a secondary cancer, late adverse reactions to treatment, or a condition unrelated to cancer, assess your patients for pain at every visit. The goal is to determine the source of the pain and if current therapies are helping to control it.

You might find that using a mnemonic such as OLD CARTS is helpful. (See *Ask the right questions*.) To help your patients prepare for a pain assessment, recommend that they keep a pain diary to document when pain occurs, the possible cause of the pain, and how it responds to interventions. The American Cancer Society website offers a pain diary you can print and share with patients (www.cancer.org/acs/groups/cid/@nho/documents/webcontent/pain-diary.pdf).

A thorough history is especially important in cancer survivors because different cancers and cancer

Ask the right questions

When assessing your patient for pain, use the mnemonic OLD CARTS to help ensure you ask the right questions.

Onset: When did the pain start? What was happening when the pain began? Was there a specific event related to pain onset?

Location: Where is the pain? Does it radiate or travel to any other part of the body? Ask the patient to point to a specific location.

Duration: How long have you had pain?

Character: What does the pain feel like? For example, is it aching, cramping, burning, or numb? This helps you categorize the pain as visceral, somatic, or neuropathic.

Aggravating factors: What makes the pain worse? Do specific movements and activities worsen it? This can help determine specific functional limitations caused by the pain.

Relieving factors: What makes the pain better? This can help identify therapies that may best control the pain. Also ask: What medications are you taking for your pain and how often are you taking them? Are you taking the medication as prescribed?

Timing: Is the pain constant, intermittent, or constant with intermittent flares? This helps identify a need for medication adjustments.

Severity: Ask your patient to rate the pain on a scale from 0 to 10, with 0 being no pain and 10 being the worst pain imaginable. If your patient can't do this, ask him or her to rate the pain as mild, moderate, or severe. If the patient can't rate or describe the severity of the pain, use the Wong-Baker FACES® pain-rating scale.

To improve your understanding of the patient's pain experience, assess the current intensity of pain as well as the range of intensity in the past 24 hours.



therapies can cause predictable chronic pain syndromes even after the cancer is controlled or cured. Ask the patient if he or she has experienced this pain in the past and if it was present before the cancer diagnosis. This may help determine if the pain is unrelated to the cancer or its treatment, which may warrant different treatment.

Managing pain

Tailor pain management to the patient's individual needs. If possible, pain management should be planned by an interdisciplinary team that includes the patient's

healthcare provider, nursing staff, and other team members as required. The pain management plan should incorporate both pharmacologic and nonpharmacologic therapies. Focus on improving pain control and functional status while balancing the risks and benefits of treatment.

Pharmacologic therapy

The information gathered from the pain assessment helps prescribing clinicians select appropriate pharmacologic therapy, balancing risks and benefits.

- Nonsteroidal anti-inflammatory

Understanding opioid misuse

Opioids can be an effective treatment for chronic pain but should be prescribed with care. Understanding how these drugs can be misused helps you ensure your patient's safety.

- **Opioid misuse** refers to using an opioid without following the prescription directions, for example, taking more medication than prescribed or inhaling a medication intended for oral use.
- **Opioid abuse** describes the use of an opioid with the goal of altering one's psychological state, instead of the goal of relieving pain. This can result in social dysfunction, impaired relationships, and inability to fulfill responsibilities.
- **Diversion** occurs when a patient transfers a prescribed controlled substance to another person for illicit use.
- **Addiction** is a chronic neurobiologic disease characterized by behaviors such as compulsive use, craving, and use despite harm.
- **Pseudoaddiction** may occur when a patient with inadequately controlled pain develops behaviors similar to drug-seeking behaviors, such as using multiple providers to obtain pain medication.

The following signs and symptoms don't always indicate opioid misuse or abuse. They may be normal physical responses to opioid therapy.

- **Tolerance** often occurs when a patient has been taking opioids regularly for a period of time and is a normal biological response to chronic opioid use. Patients with increased opioid tolerance require higher doses of the drug to achieve the same therapeutic effect previously obtained at lower doses.
- **Physical dependence** occurs when a patient shows signs and symptoms of withdrawal when an opioid dose is reduced or discontinued.
- **Withdrawal** refers to signs and symptoms, including irritability, depression, and craving, that may occur when an opioid is reduced or withdrawn.



include QTc prolongation and drug interactions.

- Topical and local analgesics can be useful in some patients with neuropathic pain. Options include lidocaine patches; compounded creams and gels containing buprenorphine, amitriptyline, and ketamine; and topical NSAIDs.

Opioids

Opioids, such as morphine, hydromorphone, oxycodone, fentanyl, and methadone, bind to opioid receptors in the central nervous system to reduce the perception of pain. Risks include sedation, confusion, constipation, nausea, vomiting, and urinary retention. Opioids may be appropriate if:

- pain can't be controlled by non-opioid analgesics and nonpharmacologic measures
- pain limits your patient's functional status
- pain affects your patient's quality of life
- opioid benefits outweigh risks.

Knowing how to identify patients who may be at risk for opioid misuse and abuse is important to ensure patient safety and well-being.

Assessing for opioid misuse. Because of the risks of opioid therapy, practitioners need to carefully select patients. One way to do that is with the Opioid Risk Tool, available at <https://goo.gl/AU79LI>. This validated brief screening tool uses factors such as family and personal history of substance abuse, history of preadolescent sexual abuse, age, and psychological disorders to place patients on a spectrum of low, medium, or high risk for opioid abuse. (See *Understanding opioid misuse*.)

Review your patient's use of prescribed controlled substances or, if your state allows, check your state's prescription drug monitoring program (PDMP), which tracks controlled substances prescribed to patients within the state and includes

drugs (NSAIDs), such as ibuprofen, naproxen, and ketorolac, relieve inflammation and are recommended for pain associated with inflammation and bone cancer. Risks include GI upset, bleeding, and ulcers; fluid retention; increased blood pressure; increased risk of cardiac events; and decreased renal function.

- Acetaminophen can help relieve mild or moderate pain and reduce fevers. Risks include liver dysfunction.
- Corticosteroids, such as dexamethasone and prednisone, help relieve inflammation and alleviate

other symptoms such as anorexia, nausea, and fatigue. Risks include GI upset, bleeding, and ulcers; increased appetite and weight gain; insomnia; delirium; anxiety; muscle weakness; infections; and hyperglycemia. Corticosteroids aren't recommended for long-term use in cancer survivors with chronic pain.

- Anticonvulsants, such as gabapentin and pregabalin, work to relieve neuropathic pain. Risks include dizziness and sedation.
- Tricyclic and serotonin norepinephrine reuptake inhibitors may relieve neuropathic pain. Risks

information about the drug, dosage, quantity, provider, and date prescribed. Look for red flags, such as obtaining prescriptions from multiple providers and running out of prescriptions early. But remember, these behaviors may also stem from untreated pain.

Before your patient begins opioid therapy, obtain a baseline urine drug screen to evaluate for use of opioids and illicit substances, especially if your patient is at risk of opioid misuse. Also provide guidelines regarding opioid use, such as taking the medication as prescribed and taking it only for pain.

Teach your patient about the risk of opioid diversion by others and the need for safe storage and disposal. In addition, discuss the ultimate goal of opioid therapy—to improve functional status and quality of life while causing as few adverse effects as possible. An opioid agreement or consent form can help solidify guidelines and expectations; access a sample at <https://goo.gl/Kk7UnK>.

If your patient begins to display behavior that may indicate opioid misuse, the practitioner may taper and then discontinue their use and refer the patient to a pain or addiction specialist.

Opioid-induced constipation. Most opioid adverse effects decrease over time, but opioid-induced constipation, the most common adverse effect, does not. Constipation is triggered by stimulation of opioid receptors in the gut. Physiologic changes, such as reduced gastric emptying and reduced peristalsis, lead to an inability to pass stool. Untreated constipation can result in nausea, vomiting, bloating, cramping, and bowel obstruction.

Management of opioid-induced constipation may begin with stimulant laxatives (for example, senna and bisacodyl) and osmotic laxatives (for example, polyethylene glycol and magnesium hydroxide).



Teach your patient about the risk of opioid diversion by others and the need for safe storage and disposal.

A stool softener like docusate isn't likely to reduce opioid-induced constipation if used alone, but it may be used in conjunction with laxatives. Increased fiber intake or fiber supplements are another option, but they may worsen constipation by bulking up the stool without aiding motility, causing significant discomfort, especially in dehydrated or immobile patients. For severe refractory constipation without obstruction, newer medications such as methylnaltrexone or naloxegol may be used.

Nonpharmacologic therapy

The American Society of Clinical Oncology guidelines emphasize the importance of nonpharmacologic interventions for managing chronic

pain in adult cancer survivors. These interventions also may improve emotional and psychological health and increase functional status.

- **Psychological approaches** include distraction, mindfulness, relaxation, guided imagery, and cognitive behavioral therapy.
- **Physical and occupational therapy** uses various modalities, including orthotics, ultrasound, and heat and cold applications, to improve function and strength while reducing pain. An individualized exercise program can help ease pain and improve well-being.
- **Integrative therapies** such as acupuncture, massage, and music may help reduce pain.
- **Interventional therapies** such as nerve blocks, neuraxial infusion, vertebroplasty, kyphoplasty, spinal cord stimulation, and intrathecal pumps may be considered. These therapies treat the actual source of the pain (for example, a nerve block at the nerve relaying the pain signal) rather than just medicating the source.

Be sure to consider nonpharmacologic therapy and refer patients as needed.

Laying the groundwork

Cancer survivors are at risk for chronic pain and undertreatment. When you perform a thorough assessment that includes asking the right questions and listening carefully to your patient, you help lay the groundwork for a comprehensive pain management plan that best meets patients' needs. Along with other interdisciplinary team members, strive to improve your patient's quality of life while reducing the risks of adverse effects and drug misuse. ★

Lauren Carter is a palliative care nurse practitioner at Valley Medical Center in Renton, Washington.

Visit AmericanNurseToday.com/?p=25365 for a list of selected references.

Provider accreditation

The American Nurses Association's Center for Continuing Education and Professional Development is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. ANCC Provider Number 0023.

Contact hours: 1.32

ANA's Center for Continuing Education and Professional Development is approved by the California Board of Registered Nursing, Provider Number CEP6178 for 1.59 contact hours.

Post-test passing score is 80%. Expiration: 4/1/20

ANA Center for Continuing Education and Professional Development's accredited provider status refers only to CNE activities and does not imply that there is real or implied endorsement of any product, service, or company referred to in this activity nor of any company subsidizing costs related to the activity. The author and planners of this CNE activity have disclosed no relevant financial relationships with any commercial companies pertaining to this CNE. See the banner at the top of this page to learn how to earn CNE credit.

Please mark the correct answer online.**1. In cancer survivors, pain from peripheral neuropathy can be caused by:**

- a. surgery.
- b. stem-cell transplantation.
- c. chemotherapy.
- d. radiation.

2. Which of the following puts cancer survivors at risk for pain from osteonecrosis?

- a. Stem-cell transplant
- b. Chemotherapy
- c. Hormonal therapy
- d. Steroids

3. What type of pain occurs in bone, skin, muscle, or connective tissue and is easily localized?

- a. Somatic
- b. Visceral
- c. Neuropathic
- d. Chronic

4. Which statement about pain assessment in cancer survivors is *not* correct?

- a. Pain diaries are not useful in this patient population.
- b. Ask if the pain was present before the cancer diagnosis.
- c. Have patients rate their pain on a scale of 0 to 10.
- d. Ask patients what makes the pain worse.

5. Risks of nonsteroidal anti-inflammatory drugs include:

- a. hyperglycemia.
- b. dizziness.
- c. decreased renal function.
- d. weight gain.

6. Which statement about corticosteroids for the management of pain in cancer survivors is correct?

- a. One risk of corticosteroids is weight loss.
- b. Corticosteroids are useful in managing chronic pain.
- c. A common risk of corticosteroids is hypoglycemia.
- d. Corticosteroids should not be used long term.

7. Tricyclic and serotonin norepinephrine reuptake inhibitors may relieve neuropathic pain, but can cause:

- a. PR shortening.
- b. PR prolongation.
- c. QTc shortening.
- d. QTc prolongation.

8. Opioids might be appropriate to manage pain in patients:

- a. for whom nonsteroidal anti-inflammatory drugs have been effective.
- b. whose pain is limiting their functional status.
- c. who have an acceptable quality of life.
- d. who score 8 or higher on the Opioid Risk Tool.

9. Which statement about opioid therapy in cancer survivors with chronic pain is correct?

- a. Obtain baseline urine drug screen to evaluate for use of opioids and illicit substances before starting therapy.
- b. Obtain a baseline stool sample to evaluate for use of opioids and illicit substances before starting therapy.
- c. Explain that opioids can be used for other symptoms in addition to pain.
- d. Avoid using an opioid agreement that explains guidelines and expectations.

10. Opioid-induced constipation is:

- a. caused by increased gastric emptying and peristalsis.
- b. triggered by stimulation of opioid receptors in the gut.
- c. treated by using a stool softener alone.
- d. not managed with stimulant or osmotic laxatives.

11. Which of the following statements about nonpharmacologic management of pain in cancer survivors is correct?

- a. Integrative therapies such as acupuncture and massage may help reduce pain.
- b. Heat and cold applications are ineffective in managing pain in cancer survivors.
- c. Vetebroplasty and kyphoplasty are not appropriate for cancer survivors.
- d. A standard exercise protocol can be used to ease pain in cancer survivors.