Managing Breakthrough Pain: A Clinical Review With Three Case Studies Using Oral Transmucosal Fentanyl Citrate

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Pain management begins with the use of appropriate assessment tools and includes planning, implementing, and evaluating a comprehensive treatment plan that addresses persistent and breakthrough pain. Persistent pain is present to some degree throughout the day and primarily is controlled with around-the-clock medication. However, it often is accompanied by episodes of short, intermittent pain, also known as breakthrough pain. From a clinical perspective, breakthrough pain is characterized as a transitory exacerbation of pain that occurs on a background of otherwise stable pain in a patient receiving chronic opioid therapy. Breakthrough pain typically is moderate to severe in intensity and can be triggered by various activities (incident pain), be entirely unpredictable (idiopathic pain), or occur toward the end of around-the-clock medication (end-of-dose failure). Breakthrough pain occurs in as many as 86% of patients with cancer even when persistent pain is well controlled. Clinicians and patients should address persistent and breakthrough pain as distinct entities to accurately assess it and develop appropriate pain management plans. This article provides an overview of the clinical characteristics of persistent and breakthrough pain and, through the use of three case studies, illustrates practical strategies for managing breakthrough pain effectively.

Key Words: pain, pain measurement, palliative care

Patients with cancer often experience pain. Pain can be related to cancer treatment (surgery, chemotherapy, or radiation therapy), to a tumor itself, or to an unrelated etiology. Patients often experience more than one type of pain, which requires integrating multiple treatment modalities into their plans of care. In patients reporting moderate to severe pain, two components of pain usually are present: persistent pain and breakthrough pain (Portenoy & Hagen, 1989, 1990). Because persistent pain and breakthrough pain are distinct entities that should be addressed individually, correctly assessing pain and developing appropriate pain management plans are challenging.

One patient's description of her pain serves as an example of the two distinct components of chronic pain. She stated, "[My] pain is deep and constant, but throughout the day, there is a pain that comes on without warning, and it takes my breath away."

Pain management begins with screening for pain using a numeric, verbal, or visual analog scale that is appropriate for the age, cultural background, and cognitive functioning of the patient. Once the presence of pain is established, a thorough assessment is conducted to determine the etiology and pathophysiologic basis of the pain. The assessment includes a neurologic and musculoskeletal physical examination, the determination of any comorbid conditions, and a medication history. Clinicians often use the OLD CART acronym (onset, location, duration, characteristics, aggravating factors, relieving factors, and temporal relationship) to assess the type of pain (see Figure 1). Screening for distress also is a crucial component of pain assessment. Distress, regardless of its origin (physical, emotional, or spiritual), affects how a patient rates physical pain intensity.

The presence and severity of persistent and breakthrough pain drive the plan of care and the types of medications that are prescribed. Breakthrough pain generally is not well understood by clinicians; therefore, it often is not managed adequately. Knowing how to assess and manage it helps to create successful pain management plans. Through the use of case studies and discussion, this article addresses the characteristics of and provides management strategies for breakthrough pain.

Submitted October 2003. Accepted for publication May 9, 2004. This work was made possible through a grant from Cephalon, Inc., in West Chester, PA. (Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Clinical Journal of Oncology Nursing *or the Oncology Nursing Society.)*

Digital Object Identifier: 10.1188/04.CJON.507-512