

# Chronic and Refractory Pain

## A systematic review of pharmacologic management in oncology

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**BACKGROUND:** Chronic and refractory cancer pain are significant issues and can increase patient suffering and compromise quality of life. A variety of evidence-based pharmacologic strategies can be used routinely to control cancer pain.

**OBJECTIVES:** The purpose of this study is to conduct a systematic review of the pharmacologic evidence in the management of chronic and refractory cancer pain.

**METHODS:** The Oncology Nursing Society's Putting Evidence Into Practice pain team conducted a search of 184 systematic reviews, meta-analyses, research studies, and guidelines and classified the evidence into weight-of-evidence categories.

**FINDINGS:** Opioids are the mainstay of cancer pain management, but evidence supports the use of coanalgesics and adjuvants to improve overall pain management. Complementary pharmacologic strategies, such as caffeine and herbal preparations, are under investigation, but additional research is needed to recommend these modalities.

### KEYWORDS

chronic pain; refractory pain; opioids; adjuvants; coanalgesics

### DIGITAL OBJECT IDENTIFIER

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**CANCER PAIN IS A COMPLEX PROBLEM WORLDWIDE** (World Health Organization [WHO], 2017) and has been defined by multiple theorists and organizations. McCaffery and Moss (1967) described pain as whatever a person says it is, which highlights the subjective nature of pain and the pain experience. The International Association for the Study of Pain ([IASP], 2012) defines pain as a multidimensional phenomenon characterized by unpleasant sensory and emotional experiences, thereby recognizing the physiologic and psychological factors of the problem. Pain can be further differentiated as acute or chronic. Acute pain is self-limiting, but chronic pain persists longer than three months or past the expected time for normal tissue healing (IASP, 2012). In addition, chronic pain is associated with significant physical, psychosocial, and social implications. Poorly managed chronic pain can result in extended hospital stays, increased healthcare costs, decreased patient satisfaction, and increased patient suffering (Chapman, 2011).

Chronic cancer pain is a major concern for patients and the healthcare system. Nurses and other healthcare professionals must take the lead in pain assessment and implementation of evidence-based pain management strategies, and coordinate the management of patients with chronic cancer pain to decrease patient suffering, decrease healthcare costs, and improve quality of life. The purpose of this systematic review is to synthesize evidence-based pharmacologic interventions for the management of chronic cancer pain. In addition, chronic cancer pain can become refractory—that is, resistant to previously employed interventions—making it particularly challenging. Pharmacologic strategies to manage refractory cancer pain are also synthesized.

### Methods

A thorough search of PubMed and CINAHL® was conducted using the search procedure described in this supplement by Brant, Eaton, and Irwin (2017). Research studies published from January 2005 to June 2016 were included in the review. Those meeting inclusion criteria were critically appraised by the Oncology Nursing Society's (ONS's) Putting Evidence Into Practice (PEP) team of RNs, advanced practice nurses, and doctorally