

# Practical Approaches to Pharmacologic Management of Pain in Older Adults With Cancer

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The literature lacks a strong evidence base regarding the use of analgesics in older adults (aged 65 years or older). Most of the current recommendations on treating older adults with analgesics are based on clinical practice and expert opinions. Hence, to make good decisions about pain management when developing treatment plans for older adults, healthcare providers should focus on the pharmacokinetic and pharmacodynamic properties of drugs in the context of the physiologic changes that occur with aging. This article describes the pharmacologic management of pain in older adults, drawing from research on cancer pain and other types of persistent painful conditions.

## Physiologic Changes Associated With Aging

Age-related altered pharmacokinetic and pharmacodynamic properties of drugs (Pergolizzi et al., 2008), as well as comorbidities, can increase the risk of pharmacologic toxicity and narrow the therapeutic window. Additionally, older adults have a greater risk of polypharmacy issues, in part because approximately 20% of adults aged 70 years or older take five or more medications (Milton, Hill-Smith, & Jackson, 2008), thereby increasing their risks for adverse events associated with interactions between medications or their metabolites. Although overmedicating can increase the risks of adverse events, undermedicating may inadequately treat a patient's pain.

When medications are administered, the effect on the body is altered by age-related changes in the gastrointestinal tract, fat and lean body mass, body water volume, and renal and hepatic function. Those physiologic changes may lead to reduced absorption, altered drug distribution, and modified metabolism and elimination.

The age-related changes in absorption are associated with an increased risk of constipation because of reduced gastric and intestinal motility. Also, individuals can be affected detrimentally by increased

**Purpose/Objectives:** To identify appropriate strategies for pharmacotherapeutic agents in the management of pain in older adults with cancer.

**Data Sources:** PubMed literature searches, personal reference collection, and clinical experience.

**Data Synthesis:** To make good decisions about pain management when developing treatment plans for older adults, healthcare providers should focus on the pharmacokinetic and pharmacodynamic properties of drugs in the context of the physiologic changes that occur with aging.

**Conclusions:** Unrelieved pain can have a detrimental effect on older adults; conversely, overmedicating can lead to an increased risk of adverse events. With advancing age, physiologic changes alter the pharmacokinetic and pharmacodynamic properties of drugs by reducing their absorption, changing their distribution, and modifying their metabolism and elimination. Also, common comorbidities increase the risk of pharmacologic toxicity and narrow the therapeutic window. In addition, polypharmacy—an issue more common in older adults—increases the complexity of prescribing and risk of adverse events. Consequently, older adults require individualization of their pharmacotherapies. Healthcare providers should consider carefully the risks and benefits of nonsteroidal anti-inflammatory drugs, opioids, and adjuvants before initiating an analgesic trial. The 2009 guidelines published by the American Geriatrics Society described several key principles for prescribing analgesics to older adults and offered specific recommendations and caveats for each drug class.

**Implications for Nursing:** Current guidelines support appropriate management of cancer pain in older adults with specific recommendations for each class of analgesics as well as general prescribing principles.

pH, decreased digestive enzyme activity, and mucosal atrophy. The potential consequences of these physiologic alterations include prolonged colon transit times, frequent constipation, gastrointestinal distress, and a higher risk for opioid-induced constipation. Slowed gastrointestinal transit times affect the oral administration of medications and can lead to decreased and even inadequate absorption of drugs. Swallowing difficulties and cancer-associated complications can make oral medications difficult to ingest, if not unmanageable.