

# Equianalgesia: Applying Evidence-Based Practice Guidelines

Bruce S. Bond, PharmD

Pain related to cancer affects the lives of large numbers of patients and their families. Cancer pain takes many forms: It may be short-lived or long-lasting, may be mild or severe, may affect one or a few organs, bones, or organ systems. Each patient's pain is unique; therefore, a greater understanding of pain management and pain relief is essential for oncology nurses.

The term “equianalgesia” means “approximately equal analgesia” and is used when referring to the doses of various opioid analgesics that provide approximately the same pain relief (Pereira, Lawlor, Vigrano, Dorgan, & Bruera, 2001). Equianalgesic dose calculations provide a basis for selecting the appropriate starting dose when changing from one opioid drug or route of administration to another. Equianalgesia is critical to effective cancer pain management (Beach, 2008). When patients are no longer able to manage their pain with oral opioids, alternative routes must be explored. Serman, Gauker, and Krieger (2003) reported that semiweekly pain management rounds with a clinical pharmacist provided the opportunity for nurses to practice equianalgesic dosing and to make recommendations for changes in pain management.

## Evidence Supporting Equianalgesia

A meta-analysis of the research literature appraised the emerging evidence on equianalgesic dose ratios derived from studies of opioid administration. Pereira et al. (2001) reported that (a) a general paucity of data exists related to long-term opioid dosing, and studies are hetero-

geneous in nature; (b) recommended dosages exhibit extremely wide ranges; (c) methadone is more potent than previously reported; (d) ratios related to methadone are highly correlated with the dose of the previous opioid; (e) the ratio may change according to the direction of the opioid switch; and (f) discrepancies exist with respect to the appropriate dosages of oxycodone and fentanyl.

According to the National Comprehensive Cancer Network (NCCN, 2007), dosing equivalents should be individualized. The correct dose is the dose that relieves the patient's pain without causing unmanageable side effects (NCCN). To determine when dose escalation is warranted, healthcare professionals should consider the patient's reported pain score, severity of symptoms, and total opioid dose for the previous 24 hours (NCCN). A comprehensive table of oral and parenteral dose equivalents is available in the most recent edition of the NCCN pain management guidelines.

## Application to Nursing

Relief of suffering is a nursing goal that is shared with patients. Despite the common goal, the problem of inadequate pain control exists on a large scale (NCCN, 2007). Nurses have a unique role because of their close working relationships with patients. Their ability to fine-tune analgesia rests on a number of foundations, including close contact with patients,

pain assessment skills, their knowledge of practice, degree of empowerment, and the wider goals and structure of the nursing care environment.

Ongoing, diligent patient assessment is the most important step in the equianalgesic conversion process. Conversion must take into account individual patient characteristics such as age, renal function, side effects, and pain syndrome. In addition, if an opioid dose is not adequate to begin with, the conversion dose is less likely to be effective. Assessment should be aimed at preventing pain if possible, identifying it immediately should it occur, and then monitoring it as interventions are selected and implemented. Believe the patient. The patient's self-report should be the primary source of pain assessment. Even when their pain recall is unreliable, patients with mild to moderate cognitive impairment (Kurita & de Mattos Dimenta, 2008) are able to report pain reliably at the moment or when prompted. Chart and assess pain with easily administered rating scales (e.g., 0–10 pain scale, Wong-Baker face scale) and document the efficacy of pain relief at regular intervals, including after starting or changing treatment, as well as with any new report of pain or change in pain pattern. Patients and caregivers should be taught how to use the pain rating scales.

Unrelieved pain has detrimental effects on wound healing, with subsequent pain chronicity (Shukla et al., 2005). Tissue damage and inflammation sensitize nerve

Bruce S. Bond, PharmD, is a clinical pharmacist and pain management fellow at Our Lady of the Lake Regional Medical Center in Baton Rouge, LA.

Digital Object Identifier: 10.1188/08.CJON.527-529