Breakthrough Cancer Pain

A systematic review of pharmacologic management

Jeannine M. Brant, PhD, APRN, AOCN®, FAAN, Barbara B. Rodgers, CRNP, MN, AOCN®, ANP-BC, Eva Gallagher, PhD, and Thiruppavai Sundaramurthi, RN, PhD, CCRN, OCN®

BACKGROUND: Breakthrough cancer pain (BtCP), defined as a transient exacerbation of pain that occurs in conjunction with well-controlled background pain, is a common and burdensome problem in patients with cancer.

OBJECTIVES: The aim of this systematic review is to identify evidence-based pharmacologic modalities for adequate management of BtCP.

METHODS: PubMed and CINAHL® databases were searched to identify literature regarding pharmacologic strategies for BtCP published from January 2006 to June 2016. These studies were then synthesized by the Oncology Nursing Society Putting Evidence Into Practice pain team.

FINDINGS: Forty-four studies provide evidence for the use of opioids for the management of BtCP. Transmucosal immediate-release fentanyl (TIRF) was found to have the most evidence for BtCP. Five studies and guidelines also suggest that oral opioids (not including TIRF products) be dosed proportionally to baseline opioids at 10%–20% of the 24-hour, around-the-clock dose.

RESULTS: Forty-four citations are included in the review for BtCP. They are further broken down into two content areas that can be recommended for practice: (a) 6 systematic reviews/meta-analyses, 25 studies, and 3 clinical guidelines provide evidence for oral and transmucosal opioids to be given for BtCP and...