

LETTERS TO THE EDITOR

Reader Questions Benefit of Nebulized Opioids

We read with interest the continuing education article on the management of refractory dyspnea in lung cancer in the July 2005 issue of the *Oncology Nursing Forum* (Jantarakupt & Porock, 2005). The distressing symptom of dyspnea, with its impact on patients and caregivers, continues to attract rigorous research around the world. The knowledge base has progressed since 2002, and, given the nature of these advances, a need exists for this research to be reflected in clinical practice.

A systematic review on the role of opioids in dyspnea was published in 2002 (Jennings, Davies, Higgins, Gibbs, & Broadley, 2002). A long-awaited finding from this meta-analysis was that oral morphine showed measurable benefit in people with refractory dyspnea. But, contrary to the article by Jantarakupt and Porock (2005), no predictable benefit from nebulized opioids was found. Contemporaneously, the first adequately powered, double-blind, placebo-controlled trial of oral once-daily, sustained-release morphine demonstrated reductions in dyspnea of the same magnitude as the meta-analysis (Abernethy et al., 2003).

The role of oxygen also was studied in a systematic review published well before the current *Oncology Nursing Forum* article (Booth et al., 2004). In this, Booth et al. were unable to demonstrate any specific population that would derive additional symptomatic benefit from oxygen when they did not already qualify for long-term home oxygen therapy. Many of the studies included in Booth et al.'s systematic review focused on functional status and not on relief of the subjective sensation of dyspnea. As such, the conclusions currently articulated by

Jantarakupt and Porock (2005) that "some arguments remain against the use of oxygen therapy for patients with cancer" should be worded more strongly. We have no current evidence of benefit beyond that which could be offered by medical air. In response to this paucity of data, a multisite, double-blind, international study is under way comparing oxygen and medical air for normoxemic patients with refractory dyspnea (Abernethy, Currow, Frith, & Fazekas, 2005).

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The Authors Respond

We appreciated the commentators' interest in our article on dyspnea management for patients with cancer. Clearly, the knowledge about using nebulized opioids and oxygen for dyspnea management has progressed since our article was prepared for publication. The article we wrote was prepared from 2002–2003, and several studies were published while the manuscript was in the process of publication. After the editor reviewed the manuscript, it was accepted to publish in late 2004.

Recently, more studies have been conducted on the efficacy of morphine in relieving dyspnea. As our colleagues highlighted, Jennings, Davies, Higgins, Gibbs, and Broadley (2005) have reviewed randomized, controlled trial studies and concluded that no statistically significant improvement of dyspnea occurred after nebulized morphine. We agree that nurses and other healthcare providers have to be aware of new studies. However, Jennings et al. also noted that the data from a meta-analysis, based on included studies, were insufficient to conclude that nebulized morphine was not effective for dyspnea management. They also suggested that more research is needed to determine the most appropriate treatment regimen.

Oral morphine also has been used frequently for dyspnea management with minimal side effects. Abernethy et al. (2003) demonstrated the superiority of oral morphine for relief of dyspnea. The efficacy and safety of morphine are acceptable, and the drug could be applied to patients suffering with dyspnea. However, this was the first adequately powered, double-blind, placebo-controlled trial of oral sustained-release morphine administered daily, and several limitations were noted. Thus, when morphine is administered as suggested, nurses should be aware of the limitations of the study.

Oxygen has long been an accepted intervention to reduce dyspnea. Regardless of whether oxygen physically diminishes the sensation of dyspnea in nonhypoxic patients, we still support the suggestion that patients

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