

## CONTINUING EDUCATION

# Dyspnea Management in Lung Cancer: Applying the Evidence From Chronic Obstructive Pulmonary Disease

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**Purpose/Objectives:** To provide an overview of mechanisms of dyspnea and causes of dyspnea in chronic obstructive pulmonary disease (COPD) and lung cancer and to critically review current pharmacologic and nonpharmacologic management of dyspnea for COPD and lung cancer.

**Data Sources:** Published articles, abstracts, textbooks, and the authors' personal experiences with dyspnea management in COPD and lung cancer.

**Data Synthesis:** The causes of dyspnea in cancer are more varied than the causes of dyspnea in COPD; however, many are similar, thus providing the justification for recommending best practice from COPD research to be used in lung cancer. Dyspnea in both diseases is treated by corticosteroids, bronchodilators, antianxiety drugs, local anesthetics, and oxygen. However, when dyspnea is severe, morphine is the first choice. Using specific breathing techniques, positioning, energy conservation, exercise, and some dietary modifications and nutrient supplements can help with dyspnea management.

**Conclusions:** Pharmacologic and nonpharmacologic management of dyspnea in COPD can be applied to dyspnea related to lung cancer. Further research in the management of dyspnea in lung cancer is required, particularly controlled studies with larger sample sizes, to determine the effectiveness of the application of COPD dyspnea management in lung cancer.

**Implications for Nursing:** Previous studies provide a guideline for applying dyspnea management for COPD to cancer. The theoretical frameworks used in previous studies can be modified for conducting further study.

Dyspnea is a distressing and debilitating symptom for patients with either primary or metastatic lung cancer that increases in severity with the progression of disease (Escalante et al., 1996; Vainio & Auvinen, 1996). In patients with primary lung cancer, the most common cause of dyspnea is the underlying disease—usually the cancer tumor or chronic obstructive pulmonary disease (COPD). In other cancers, the principle cause of dyspnea is lung metastases from the primary site, such as with breast, esophagus, colorectal, and prostate cancer (Heyse-Moore, Ross, & Mullee, 1991; Vainio & Auvinen). In the advanced stages of primary and metastatic lung cancer, cancer-induced complications such as pleural effusion, pericardial effusion, pulmonary embolus, pneumonitis, and superior vena cava syndrome can be the causes of dyspnea (Cowcher & Hanks, 1990). Management of dyspnea in patients with cancer requires knowledge and understanding

### Key Points . . .

- ▶ Dyspnea is a distressing and debilitating symptoms for patients with primary or metastatic lung cancer.
- ▶ Some causes and complications of dyspnea in patients with chronic obstructive pulmonary disease (COPD) and lung cancer are similar; thus, successful dyspnea management in patients with COPD may be applied to the management of dyspnea in patients with lung cancer.
- ▶ Pharmacologic treatment, including morphine, corticosteroids, bronchodilators, antianxiety drugs, local anesthetics, and oxygen, has been used to relieve dyspnea in COPD and lung cancer. Yet not many reports exist of nonpharmacologic treatment, such as breathing exercises, positioning, energy conservation, exercise, dietary modifications, and nutrient supplements, to relieve dyspnea in patients with lung cancer.

### Goal for CE Enrollees:

To enhance nurses' knowledge about dyspnea, including interventions found to be effective in chronic obstructive pulmonary disease (COPD) that may prove beneficial in lung cancer.

### Objectives for CE Enrollees:

1. Describe the mechanisms and causes of dyspnea in COPD and lung cancer.
2. Evaluate the efficacy of pharmacologic and nonpharmacologic interventions for dyspnea and their applicability in COPD and lung cancer.
3. Discuss the implications of interventions for dyspnea for oncology nursing practice.

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