

# Assessing Dyspnea in Patients With Non-Small Cell Lung Cancer in the Acute Care Setting

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Dyspnea is a common and often overlooked symptom in patients with lung cancer. Oncology nurses are positioned to promptly assess, triage, and intervene to minimize dyspnea, but improved assessment is needed. As a result, this pilot study explores the validity and feasibility of two assessment scales on measuring the perception of dyspnea in patients with non-small cell lung cancer in the acute care setting.

Dyspnea remains an under-recognized and distressing symptom for patients coping with non-small cell lung cancer (NSCLC). Dyspnea is reported in almost 60% of patients with lung cancer (Beckles, Spiro, Colice, & Rudd, 2003). Oncology nurses caring for patients with dyspnea must promptly assess, triage, and intervene to minimize the often frightening sensation. Dyspnea is defined as a subjective experience of difficult, labored, and uncomfortable breathing that occurs when the demand for ventilation exceeds individual ventilation capacity (Brown, Carrieri, Janson-Bjerklie, & Dodd, 1986). Dyspnea, which impacts up to 70% of patients with cancer during their last four weeks of life (Reuben & Mor, 1986), is a complex issue consisting of physical, emotional, functional, and psychological factors (Joyce, McSweeney, Carrieri-Kohlman, & Hawkins, 2004; O'Driscoll, Corner, & Bailey, 1999).

The oncology clinical nurse specialist at a community-based hospital identified the need to improve the process for assessing and managing dyspnea in patients with cancer receiving acute care. A better understanding of the mechanisms, assessment, and treatment of dyspnea is needed for clinicians to improve their ability to monitor and treat patients (American Thoracic Society [ATS], 1999). Given appropriate tools, the nurse is in position to gain a more insightful view of the patient's experience through subjective and objective data. In addition, thorough assessment

of dyspnea may lead to more suitable and effective interventions to minimize patient distress. The oncology clinical nurse specialist coordinated a project team of nursing staff to address dyspnea; the study project and results are the focus of this article.

This exploratory pilot study was aimed to examine the validity and feasibility of the Numeric Rating Scale (NRS) and the ATS Grade of Breathlessness Scale on measuring the perception of dyspnea in patients with advanced NSCLC in the acute care setting. The study also was aimed to explore different interventions employed by oncology nurses based on patients' NRS scores to examine influencing variables of age, gender, ethnic origin, comorbidities, and smoking status on patients' perceptions of dyspnea.

## Literature Review

### Lung Cancer

NSCLC accounts for about 75%-80% of all lung cancers in the United States (Houlihan, 2004). About 90% of patients with NSCLC experience moderate to se-

vere dyspnea before death (LeGrand & Walsh, 1999). Lung cancer has a delayed presentation because its signs and symptoms usually develop once the tumor is large enough to interfere with normal lung function or the tumor has spread to distant areas and causes issues such as pain from bone metastasis (Tyson, 2004). Eighty-seven percent of patients with NSCLC experienced breathlessness as a serious symptom of their disease (Hollen, Gralla, Kris, Eberly, & Cox, 1999). Patients with lung cancer experience increasing issues with breathing, decreased sense of vitality, and increased psychological distress throughout their disease trajectory (Specht-Ryan, 1996). Dyspnea is more common among patients with lung cancer than the cancer population in general (Houlihan, Inzeo, Joyce, & Tyson, 2004). Causes of dyspnea in this population may include direct tumor invasion of the lung parenchyma or airways or indirect complications such as pleural effusions, pneumonia, side effects from chemotherapy or radiation therapy, or comorbid conditions (e.g., chronic obstructive pulmonary disease, heart failure, pulmonary embolism) (Wickham, 2002).

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Digital Object Identifier: 10.1188/10.CJON.509-513