

# Integration of Behavioral Cough Suppression Therapy Into Lung Cancer Care: Nonpharmacologic Interventions for Chronic Cough

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**BACKGROUND:** Chronic cough is a demanding symptom of lung cancer. Clinical research tends to underestimate the impact of lung cancer–related cough on patient quality of life. Current guidelines do not describe how oncology nurses, as a vital part of the interprofessional team, can use nonpharmacologic interventions described by behavioral cough suppression therapy (BCST) techniques for patients with lung cancer.

**OBJECTIVES:** This article aims to provide oncology nurses with insight into BCST and investigates how to integrate BCST into lung cancer care.

**METHODS:** A literature search for primary articles related to BCST was conducted using the electronic databases PubMed® and CINAHL®. The 2017 American College of Chest Physicians' guideline and expert panel report served as a major resource.

**FINDINGS:** Oncology nurses can investigate the use of BCST techniques for patients with lung cancer with chronic cough as a nonpharmacologic intervention. Assessment of patients with chronic cough should be carried out before initiating referral for BCST, including identifying cough triggers, causes of cough, and cough types.

## KEYWORDS

chronic cough; lung cancer; behavioral cough suppression therapy; palliative care

## DIGITAL OBJECT IDENTIFIER

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**COUGH OR WORSENING COUGH OCCURS IN ABOUT 56%** of patients with lung cancer (Walter et al., 2015). The average time to develop chronic cough in patients with lung cancer is more than a year (Harle et al., 2019). Consequently, chronic cough among patients with lung cancer leads to chest pain, fatigue, sleep disturbance, and shortness of breath, contributing to social isolation, anxiety, and depression (Harle et al., 2020). Cough severity in patients with lung cancer negatively influences performance status, affecting the prognosis for lung cancer (Harle et al., 2019). Patients with non-small cell lung cancer are more likely to present with cough than patients with small cell lung cancer (Athey et al., 2018). Iyer et al. (2014) reported that most patients with advanced non-small cell lung cancer (stage III or IV) in the United States had experienced cough (93%), dyspnea (95%), and fatigue (100%). Therefore, cough is viewed as an important determinant of quality of life (QOL) (Molassiotis et al., 2017). Molassiotis et al. (2011, 2017) stressed that cough has also been found to be related to other symptoms, such as breathlessness and fatigue, forming symptom clusters that negatively affect overall QOL.

Despite the tremendous symptom burden of cough in patients with lung cancer, lung cancer–related cough is often underestimated by healthcare providers because of a lack of research or clinical guidelines regarding lung cancer–induced cough (Chamberlain Mitchell et al., 2019). For example, Iyer et al. (2014) reported that, although 5%–45% of patients with lung cancer described that their cough is significant, clinicians recognized significant cough in only 5% of patients after the clinical encounter. As a result, cough remains an unmet need for lung cancer (Harle et al., 2020). In a longitudinal observational study of cough in patients with lung cancer (Harle et al., 2019), characteristics, such as cancer stage and histology, smoking, and chronic obstructive pulmonary disease (COPD) were not associated with severity of cough despite it being a frequent and distressing symptom.

According to the 2017 American College of Chest Physicians (CHEST) guideline, patients with lung cancer who have cough despite surgery, chemotherapy, or radiation therapy require nonpharmacologic interventions, such as cough suppression exercises, as an additional therapy or an alternative to pharmacologic therapy. However, such nonpharmacologic interventions to manage cough, particularly in patients with advanced lung cancer, have not been actively investigated (Yorke et al., 2015). Current guidelines do not