

# Exploring Symptom Clusters and Their Measurements in Patients With Lung Cancer: A Scoping Review for Practice and Research

Katarina Karlsson, RN, Cecilia Olsson, RN, PhD, Ann Erlandsson, PhD, Karin M. Ahlberg, RN, PhD, and Maria Larsson, RN, PhD

**PROBLEM IDENTIFICATION:** This scoping review aimed to explore symptom clusters (SCs) in patients with lung cancer and how included symptoms and symptom dimensions are measured.

**LITERATURE SEARCH:** PubMed®, CINAHL®, Scopus®, and Cochrane Library were searched for studies published until December 31, 2021. Fifty-three articles were included.

**DATA EVALUATION:** Data extracted included descriptive items and SC constellations. Patient-reported outcome instruments and measured symptom dimensions were described according to the middle-range theory of unpleasant symptoms.

**SYNTHESIS:** 13 articles investigated SCs a priori and 40 de novo. Thirty-six instruments were used, mostly measuring intensity alone or in combination with timing. Qualitative articles (n = 6) provided rich descriptions within the distress, timing, and quality dimensions.

**IMPLICATIONS FOR RESEARCH:** Fatigue was the symptom found to most frequently co-occur with other symptoms in SCs. Fatigue, psychological symptoms, and nutritional aspects are emphasized as important areas for oncology nursing practice and further research to improve SC management for patients with lung cancer.

---

**KEYWORDS** lung cancer; symptom cluster; symptom dimensions; patient-reported outcome instruments  
**ONF, 50(6), 783-815.**  
**DOI** 10.1188/23.ONF.783-815

Despite the many advances in cancer treatment options and the increasing number of cancer survivors, patients with lung cancer continue to experience significant symptom burden and distress (Siegel et al., 2020; Sung et al., 2017). Patients with lung cancer often experience multiple side effects from treatment and symptoms from the disease itself (Bouazza et al., 2017), affecting their functional status, general health perception, and overall health-related quality of life (Ferrans et al., 2005). Systematic use of patient-reported outcome measures (PROMs) during treatment and follow-up is fundamental in the era of person-centered care, and symptom assessment is the first step of the symptom management process. Using PROMs is one method to improve symptom management, enhance quality of care, and promote patient satisfaction for patients with cancer (Graupner et al., 2021). Within oncology nursing, continuous symptom management, including assessment, is critical in providing holistic person-centered care of high quality.

## Symptom Clusters in the Oncologic Setting

In clinical practice and research, symptoms occurring in clusters have a synergistic and cumulative effect on patient outcomes compared with single symptoms, hence having important implications for clinical practice (Miaskowski et al., 2017). Research has focused on single symptoms, and most patients with cancer experience multiple co-occurring, related symptoms (Dodd, Miaskowski, & Paul, 2001; Kim et al., 2005). The present study relies on the symptom cluster definition by Kim et al. (2005) as established groups of symptoms (two or more)