Treatment of Dyspnea in Cancer Patients

Review Article [1] | June 01, 2002
By Lauren Shaiova, MD [2] and Russell K. Portenoy, MD [3]

Dyspnea is an extremely common symptom among cancer patients.[1] Like pain, it is inherently subjective and is best defined as the perception of difficulty in breathing, or an uncomfortable awareness of breathing. Although it may be associated with one or more physiologic disturbances (such as hypercapnia, hypoxia, obstructive or restrictive patterns on pulmonary function tests, or various abnormalities on chest imaging studies), it is not strongly associated with any specific abnormality and may occur in the absence of any. Patient self-report is the gold standard for assessment and may range from mild breathlessness on exertion to a terrifying sense of suffocation.

Drs. Thomas and von Gunten provide a lucid overview of dyspnea and describe the management approach preferred by palliative-care specialists. They make several points that deserve emphasis.

Goals of Care
Effective management of dyspnea is predicated on good communication, a clear understanding of the goals of care, and a comprehensive assessment. A style of communication that is unhurried, calm, and compassionate may itself be therapeutic in the context of a distressing symptom. Ongoing assessment should be linked to education of the patient and family about the symptom and its treatment. A plan for accessing care on an around-the-clock basis is extremely important in addressing this symptom, which may be experienced as a harbinger of death.

The goals of care frame the extent of the evaluation and define the appropriateness of various therapeutic strategies. For patients who appear to have relatively long life expectancies and goals that include functional restoration, the evaluation of potentially treatable primary causes may be extensive, and a full range of primary and symptomatic treatments may be considered. Specialists in pulmonary medicine may be consulted in such cases.

For those with short life expectancies, the goals of care usually stress symptom control over functional gains, and evaluation may be limited to approaches that carry a minimum burden. It is in this population that the role of sedation as a therapeutic approach to address refractory symptoms has gained the strongest support.[2]

Comprehensive Assessment
A comprehensive assessment is key to all palliative care. Although the measurement of dyspnea severity with a verbal rating scale, a numeric scale, or an analog scale is essential for clarifying the urgency of treatment and tracking response, other symptom characteristics are also relevant. The patient may be able to discern factors that alleviate or exacerbate the dyspnea, and this may suggest methods such as preemptive therapy with an opioid that lessen severe episodes. An association with intense anxiety, a pattern of rapid and shallow breathing, or cough may suggest specific therapeutic interventions. As stressed by Thomas and von Gunten, a medical assessment that is consistent with the goals of care may clarify potentially treatable etiologies.

The assessment of most dyspeptic patients should not be limited to the symptom alone. An evaluation that includes other symptoms, psychological and psychiatric disorders, medical comorbidities, social or familial disturbances, or spiritual distress may have an impact on the treatment of dyspnea or suggest concurrent therapies that may independently relieve suffering or improve quality of life. For example, some patients with dyspnea report improvement when pain or fatigue are ameliorated.
A comprehensive assessment should also consider the existence of advance directives, availability of practical help in the home, and the feasibility and appropriateness of support from community agencies, including hospice programs. Given the association between dyspnea and advanced disease, this assessment may suggest a variety of needed interventions and the value of assembling an interdisciplinary team to help manage the patient.

**Therapeutic Choices**

There have been few clinical trials of treatments for dyspnea, and symptomatic therapies are typically administered on the basis of anecdotal experience. Systemic opioid therapy is the mainstay, despite limited evidence of efficacy.[3,4] There is no evidence that inhaled opioids are more effective than systemic opioids, and indeed, it is uncertain whether inhalation is effective at all for cancer-related dyspnea. Although an increase in opioid dose is widely used to address dyspnea in patients who are receiving an opioid for pain, the optimal size of the increment is unknown, the potential benefits of a switch to an alternative drug have not been assessed, and the value of adjuvant therapy combined with the opioid has not been explored.

The authors mention nonpharmacologic therapies for dyspnea, and it is important to highlight the potential role of rehabilitation. Deconditioning is common among those with advanced disease, and neuromuscular disorders, such as paraneoplastic or chemotherapy-induced neuropathy, may occur as well.

Muscular weakness may be a particularly important mechanism of dyspnea,[4] and general conditioning and more sophisticated pulmonary rehabilitation programs should be considered for many dyspneic patients, especially those who seek better function as well as symptom control.

**In Conclusion**

Thomas and von Gunten note the wide variation in presentations, etiologies, and pathophysiologies of dyspnea in cancer patients. Potential therapies are equally diverse. Clinicians should perform comprehensive assessments and exercise judgment in selecting from a broad spectrum of disease-modifying and symptomatic therapies.

**References:**


**Source URL:** [http://www.cancernetwork.com/review-article/treatment-dyspnea-cancer-patients-0](http://www.cancernetwork.com/review-article/treatment-dyspnea-cancer-patients-0)

**Links:**

[1] http://www.cancernetwork.com/review-article
[2] http://www.cancernetwork.com/authors/lauren-shaiova-md
[3] http://www.cancernetwork.com/authors/russell-k-portenoy-md