

# Noninvasive Interventions for Improving Well-Being and Quality of Life in Patients With Lung Cancer

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## Objective

To assess the effectiveness of noninvasive interventions.

## Type of Review

The review included 15 trials of randomized and quasi-randomized clinical trials assessing the effects of noninvasive interventions in improving well-being and quality of life in patients diagnosed with lung cancer. The participants (n = 1,587) were patients of either gender and any age diagnosed with lung cancer at any stage of their illness.

Types of interventions were defined as noninvasive intervention performed for the care of patients with lung cancer. Interventions were defined as any physical treatment that did not require catheterization, skin puncture, intubation, incision, drainage, endoscopy, or pharmacologic intervention. The care performed for patients with lung cancer was defined as any treatment or action, based on clinical judgment and knowledge, that healthcare professionals perform to enhance patient well-being or quality of life. The following types of interventions were included.

- *Well-being* was defined as a subjective or objective perception of improvement in physical health, or of symptoms related to cancer, to metastases, or to side effects of treatment of the illness; and/or a subjective or objective perception of improvement of physical functioning.

- *Quality of life* was defined as an individual's perception of position in life in the context of the culture and value systems in which he or she lives and in relation to goals, expectations, standards, and concerns.

The main limitations of the studies included were the variability of the interventions assessed and the approaches to measuring the considered outcomes, and the lack of data reported in the trials regarding allocation of patients to treatment groups and blinding.

## Relevance for Nursing

Despite advances in treatment, the outlook for the majority of patients with lung cancer remains grim and most face a pessimistic future accompanied by sometimes devastating effects on emotional and psychological health. Although chemotherapy is accepted as an effective treatment for advanced lung cancer, the high prevalence of treatment-related side effects, as well as the symptoms of disease progression, highlight the need for high-quality palliative and supportive care to minimize symptom distress and promote quality of life.

## Characteristics of the Evidence

The 15 trials included in this review were categorized into 6 groups according to their interventions.

Three studies assessed the nursing interventions to manage breathlessness

and focused on the nonpharmacologic management of breathlessness in 165 patients with lung cancer. One study looked at patients who had completed chemotherapy or radiotherapy treatment and randomized them to receive a nonpharmacologic intervention to ameliorate breathlessness or to a control group that received accurate assessment of symptoms but no intervention. The other study assessed a breathlessness training intervention over 12 months. The trial compared three versus a single session provided by a specialist physiotherapist or by trained nurse specialist. The third study randomized 109 patients, who had completed treatment and were experiencing breathlessness, to receive dyspnoea management intervention or standard care.

Four studies assessed the effects of general nursing programs and assessment among 556 patients with lung cancer on a variety of outcomes, including symptomatology, psychosocial well-being, quality of life and patient satisfaction, anxiety, depression, and symptom palliation.

One study assessed nutritional interventions aimed to increase oral nutritional intake on weight, response to therapy, survival, and quality of life in 96 patients with lung cancer. Patients were randomized to receive (a) nutritional advice intervention mainly consisting of oral nutrition supplementation (standard); (b) a nutritional intervention aimed to increase patients' dietary intake of protein so that 25% of the total caloric intake was from protein sources; or (c) no specific nutritional intervention or counseling and follow an ad lib diet.

Three studies assessed the psychotherapeutic, psychosocial, and educational interventions among 522 patients with lung cancer. One randomized trial assessed the effects of counseling on patients with