Are non-invasive interventions delivered by healthcare professionals effective for improving symptoms, psychological functioning, and quality of life in patients with lung cancer?

**METHODS**


Study selection and assessment: randomised controlled trials (RCTs) or controlled clinical trials (CCT) that evaluated non-invasive interventions (ie, any physical treatment that does not require catheterisation, skin puncture, intubation, incision, drainage, endoscopy, or pharmacological intervention) based on an clinical judgment and knowledge, and performed by healthcare professionals to enhance patient wellbeing or quality of life in patients with lung cancer (patients with other thoracic cancers were included). Study quality was assessed using criteria that included method of randomisation, allocation concealment, blinding, patient follow up, and sample size calculation.

Outcomes: wellbeing (measured by validated and specific standardised impairment, distress, or psychological scales) and quality of life (determined exclusively by means of validated scales, classifications, and measurement systems).

**MAIN RESULTS**

9 RCTs met the selection criteria and were categorised into 6 groups. Meta-analysis was not done because of study heterogeneity. (1) Nurse led management of breathlessness programme v usual care (2 RCTs, n = 143). Improvement in symptoms, performance status, and emotional functioning was greater in the intervention groups than in the control groups (p values <0.05). (2) Nurse led follow up programmes v standard physician follow up (3 RCTs, n = 370). Structured nursing follow up programmes were associated with positive effects on delay in clinical deterioration, dependency, symptom distress, and quality of life (determined exclusively by means of validated scales, classifications, and measurement systems).

(3) Nutritional advice by a dietician to achieve targeted caloric intake v ad lib oral diet without support from a dietician (1 RCT, n = 192). Nutritional advice increased caloric intake (p<0.001) but not weight or survival. (4) Counselling v no intervention (1 RCT, n = 65). Counselling was associated with improvements in depression, alienation score, life satisfaction, and self esteem throughout follow up (p values <0.05). However, the groups did not differ for functional status, degree of impairment, or survival. (5) Preparative exercise (walking and stair climbing, and arm, leg, and breathing exercises) v no intervention (1 RCT).

**CONCLUSION**

Non-invasive interventions of various types delivered by healthcare professionals are effective for improving symptoms and psychological functioning in patients with lung cancer.