Does dietary counselling help outpatients with COPD at risk of malnutrition?

This study assessed the impact of dietary counselling and food fortification on outcome in outpatients with COPD who are at risk of malnutrition.

INTRODUCTION
Malnutrition in patients with COPD is associated with a poor prognosis, yet there is little evidence to support the role of dietary counselling and food fortification.

This is one of the first randomised controlled trials to evaluate the specific impact of dietary counselling on outcome in any patient group.

The study is unusual as it measured the effect of intervention not only on nutritional outcomes but also on objective and subjective measures of functional status. It also measured the effects of stopping the intervention, an area rarely investigated.

THE STUDY
Patients were recruited in the chest clinic at St Thomas’, Guy’s and Lewisham hospitals from August 2001 to May 2003. Fifty-nine outpatients with COPD at risk of malnutrition, aged 18 or older, took part in the trial and 37 completed it.

An intervention group of 31 patients received a leaflet with advice on nourishing snacks and drinks and encouraging food fortification, as well as a package of treatment including dietary counselling by an experienced dietician and a supply of milk powder to use in food fortification.

The 28 controls received the same dietary advice leaflet but its contents were never discussed with them. Neither did they receive the treatment package.

The intervention lasted for the first six months of the study and the effects of stopping this were measured during the following six months. Outcome measures were nutritional status, respiratory and skeletal muscle strength, respiratory function, perceived dyspnoea, activities of daily living (ADL) and quality of life.

KEY FINDINGS
A significant difference in final body weight was observed between the intervention and control groups. Intervention patients gained around 2kg body weight during the intervention period and maintained weight during follow-up, whereas the controls lost weight throughout the study.

The intervention group gained fat mass and maintained muscle mass, while controls lost both fat and muscle mass.

Patients in the intervention group consumed significantly more energy and protein than controls during the intervention period, but no differences were observed between the groups during the follow-up.

Only four (14%) intervention patients failed to comply with any advice or food fortification. No control patients made any significant improvements to their diet or bought milk powder despite being advised to do so by the leaflet.

Using assessment tools, the intervention group scored significantly better than the control group in the areas of health change, dyspnoea and respiratory questionnaire score, and the difference in ADL score approached significance.

No differences were observed between the groups in respiratory function or skeletal and respiratory muscle strength. Improvements in some variables lasted for six months beyond the intervention period.

The intervention group showed improvements in psychosocial function, which was reflected in changes in quality-of-life scores.

CONCLUSION
Dietary counselling resulted in significant benefits in dietary intake, body composition, quality of life and subjective measures of functional status.

Leaflets providing dietary advice and encouraging food fortification are ineffective in achieving weight gain and functional benefits in this patient group, compared with dietary counselling and advice on food fortification.

Dietary counselling may result in changes to dietary habits that last beyond the intervention period, a potential benefit of this strategy over the use of oral nutritional supplements (ONS).

More research is needed comparing ONS with dietary counselling, including the specific effects of each strategy on dietary intake and behaviour, during and after intervention.

Improvements in psychosocial function may have beneficially influenced participants’ motivation to undertake daily activities or the ability to cope with activity-related dyspnoea; further research is needed on this.

Data on physical activity levels and energy expenditure – other factors that could have contributed to the observed differences in weight gain and dietary intake – were not collected in this study. *

To read this study in full, see tinyurl.com/dietary-counselling

REFERENCES