A randomized controlled trial of respiratory physiotherapy for patients with LRTI

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Abstract

The benefits of respiratory physiotherapy (RP) are well established in patients with chronic respiratory diseases. However, its effects in acute respiratory infections are unknown. This study assessed the effects of RP in patients with lower respiratory tract infections (LRTI).

Patients were recruited from a hospital and randomly assigned to conventional care or to a community RP programme. Patients in the RP group received conventional care plus 9 sessions of RP which included breathing retraining, airway clearance, thoracic mobility/flexibility exercises and aerobic training. The 6 minute walk distance (6MWD), peripheral oxygen saturation (SpO2) and the Modified British Medical Research Council scale for dyspnoea were used as outcome measures. Repeated measures ANOVA and Mann Whitney U-tests, after pooling the differences between pre/post assessments, were used to compare groups.

31 (54±17yrs) patients were enrolled in the control group and 22 (56±19yrs) in the RP group. After intervention, the RP group was significantly less limited in their activities due to dyspnoea (mMRC 0 vs. -1; p=0.040), presented higher oxygen saturation (SpO2 p=0.045; η2=0.076) and walked a longer distance (6MWD p=0.006; η2=0.137) than the control group.
The addition of RP to the usual care of patients with LRTI seems to be more effective than usual care only in improving patients' functionality and health status.

We recommend

An official systematic review of the European Respiratory Society/American Thoracic Society: measurement properties of field walking tests in chronic respiratory disease
Jack Wanger et al., European Respiratory Journal

How to carry out a field walking test in chronic respiratory disease
Anne E. Holland et al., Breathe

The role of per cent predicted 6-min walk distance in pulmonary arterial hypertension.
W-T N Lee et al., European Respiratory Journal

Correlation of composite physiologic index with 6-minute walk test variables in patients with idiopathic interstitial pneumonias
Keisuke Morikawa et al., European Respiratory Journal

Safety and efficacy of exercise training in various forms of pulmonary hypertension.
Ekkehard Grünig et al., European Respiratory Journal

The evidence of benefits of exercise training in interstitial lung disease: a randomised controlled trial
Ian Glaspole et al., Thorax

Is nasal suctioning warranted before measuring O2 saturation in infants with bronchiolitis?
Laura Moschino et al., Arch Dis Child

Disease Course of Bacterial Lower Respiratory Tract Infection
PracticeUpdate

Conservative Use of Oxygen May Improve ICU Mortality
PracticeUpdate

Effect of dual pulmonary vasodilator therapy in pulmonary arterial hypertension associated with congenital heart disease: a retrospective analysis
Oliver Monfredi et al., Open Heart