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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 $p=0.045$; $\eta^2=0.076$) and walked a longer distance (6MWD $p=0.006$; $\eta^2=0.137$) than the control group.

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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.

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