COCHRANE PRIMARY HEALTH CARE FIELD

PEARLS Practical Evidence About Real Life Situations

Pulmonary rehabilitation effective following exacerbations of chronic obstructive pulmonary disease

Clinical question	How effective is pulmonary rehabilitation following exacerbations of chronic obstructive pulmonary disease (COPD)?
Bottom line	Compared to usual community care (no rehabilitation), pulmonary rehabilitation reduced hospital admissions over 34 weeks (NNT* 3) and mortality over 107 weeks (NNT 6). Quality of life measures, such as dyspnoea, fatigue and emotional function, were also improved, and the effect was well above the minimal important difference. Exercise capacity was also improved. No adverse events were reported. *NNT = number needed to treat to benefit one individual.
Caveat	Treatment group assignment was not blinded in these studies. This may have introduced bias for subjective outcomes, such as quality of life, but is less likely to be an important source of bias for mortality and hospital admission data. Another limitation is the small number of patients included in the trials and methodological shortcomings.
Context	Pulmonary rehabilitation has become a cornerstone in the management of patients with stable COPD. Systematic reviews have shown large and important clinical effects of pulmonary rehabilitation in these patients. In patients with unstable COPD who have suffered from an exacerbation recently, however, the effects of pulmonary rehabilitation are less established.
Cochrane Systematic Review	Puhan M et al. Pulmonary rehabilitation following exacerbations of chronic obstructive pulmonary disease. Cochrane Reviews 2009. Issue 1. Article No. CD005305. DOI:10.1002/14651858. CD005305.pub2. This review contains 6 studies involving 219 participants.
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[References]