

# The feasibility of early pulmonary rehabilitation and activity after COPD exacerbations: external pilot randomised controlled trial, qualitative case study and exploratory economic evaluation

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## Plain English summary

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## Plain English summary

Patients with chronic obstructive pulmonary disease (COPD) undergo exacerbations, which lead to loss of function, hospital treatment and sometimes death. Exercise training might help these patients.

We said that if we could recruit 76 patients to our study in 7 months then it would be possible to undertake a full-scale trial of exercise training in people admitted to hospital with acute exacerbation of COPD (AECOPD).

We compared usual care – referral to exercise classes – with two forms of supervised exercise: (1) bicycle-based activity at the hospital bedside and (2) exercise at home 2 weeks after discharge. We asked patients to report their activity and quality of life. We interviewed them about the exercise and being in the trial and we looked at costs.

Over 7 months we considered 449 patients with COPD at two hospitals, but only 58 entered the study. Of these, 40 gave us data at the end of the study; the key measure of activity was completed by 21 (36%) people. As this was a pilot trial the numbers were too small to look at any differences between the groups.

Only 34% of the in-hospital exercise sessions were completed, compared with 78% of the home exercise sessions. Patients and physiotherapists mostly found the exercises to be acceptable; patients sometimes felt unwell but were generally able to carry out the exercises. The in-hospital exercises were difficult to deliver because of staff availability and early discharge.

The recruitment rate and the feasibility of the in-hospital exercises mean that it would not be possible to run a full-scale trial using the same trial design. The data obtained can be used to design another full-scale trial of early pulmonary rehabilitation in the home following AECOPD.



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