



<b>Title</b>	<b>A Randomized Controlled Crossover Trial of Nurse Practitioner Versus Doctor-led Outpatient Care in a Bronchiectasis Clinic</b>
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<b>Reference</b>	Health Technol Assess 2002; 6(27). Oct 2002. <a href="http://www.ncchta.org/execsumm/summ627.htm">www.ncchta.org/execsumm/summ627.htm</a>

## Aim

In a specialist outpatient clinic for bronchiectasis patients, the study objectives were: 1) to assess the feasibility and safety of nurse practitioner-led outpatient clinics and their acceptability to patients and their doctors, and 2) to compare the cost effectiveness of nurse practitioner-led care with a doctor-led system of care.

## Conclusions and results

Of the 80 patients recruited, 39 were randomized to nurse practitioner-led followed by doctor-led care, and 41 to doctor-led followed by nurse practitioner-led care. Baseline lung function and 12-minute walk distance were similar in the two groups.

At the final followup, the mean difference in FEV1 between nurse practitioner-led and doctor-led care was 0.2% predicted. The mean difference in 12-minute-walk distance between the two methods of service delivery was 18 meters. Of those patients who were using antibiotics and indicated their compliance, 100% were compliant while receiving nurse practitioner-led care compared with 81% of patients during doctor-led care, a difference that was statistically significant. The health-related quality-of-life analysis revealed no significant mode of care effects. However, patients reported less vitality/energy and greater levels of pain following doctor-led care, but fewer role limitations because of emotional problems. In analyzing patient satisfaction with the clinic consultations, a statistically significant difference favored the nurse practitioner. However, nurse practitioner-led care resulted in significantly higher resource use compared with doctor-led care. The mean difference per patient was £1498 and was greater in the first year (£2625) than in the second (£411).

## Recommendations

Nurse practitioner-led care for stable patients in a chronic chest disease clinic is safe and as effective as doctor-led care. Patient satisfaction was significantly higher with some aspects of nurse practitioner-led care, and patient compliance with antibiotic therapy was higher. Nurse practitioner-led care used significantly more resources in admissions and antibiotic prescriptions. This may be a learning effect (difference was substantially greater in year 1.)

## Methods

Two-phase study: First, the nurse practitioner completed a 6-month program to enable her to practice independently. This included tuition in the principles of bronchiectasis, its clinical presentation and management, and practical experience and skills in clinical assessment and therapeutics. The second phase used a RCT (crossover design) to compare nurse practitioner-led with doctor-led care in a bronchiectasis outpatients' clinic. Sample size was based on establishing equivalence of the two care modes.

## Further research/reviews required

The design was robust and appropriate for this type of evaluation. Randomization allowed the most objective treatment assignment during of study and detected unpredicted differences in hospitalization and cost. In future studies, randomization during training and a formal evaluation of all outcomes immediately thereafter would help identify needs and minimize the learning curve effect during formal evaluation. Another option would be to lengthen the trial.

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