

# Patient-managed interventions in bronchiectasis: evidence, challenges and prospects

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Bronchiectasis is a chronic respiratory disease characterised by persistent cough and sputum production, and recurrent infections, leading to substantial symptom burden and healthcare utilisation. This narrative review explores the expanding role of patient-managed interventions, including airway clearance techniques (ACTs), hyperosmolar agents, exercise training, and self-management, in the treatment of adults with bronchiectasis. We argue for a shift from traditional clinician-led models to care approaches that actively engage patients as partners in managing their condition. While ACTs and pulmonary rehabilitation are supported by clinical guidelines and growing evidence, important gaps remain around treatment burden, long-term adherence, timing, delivery methods, and patient selection. Cough, although a hallmark symptom, remains under-addressed in intervention research. Self-management approaches show promise but lack consistency in design, delivery, and outcome reporting.

Emerging approaches such as combining ACTs with hyperosmolar agents, and integrating digital tools like web-based activity platforms, offer opportunities to reduce burden, enhance tolerability, and improve accessibility. Similarly, the use of behavioural and needs-based strategies, including goal setting, may empower individuals to manage their condition more effectively. These methods represent opportunities to align intervention design with patients' lived experience, motivation, and real-world context (figure 1).

By positioning patient-managed care as a core component of bronchiectasis treatment, rather than an optional add-on, this review presents a forward-looking framework for more personalised, scalable, and equitable care. It invites broader interdisciplinary collaboration to advance research and implementation, and to reimagine management strategies for this under-recognised and underserved population.

FIGURE 1

Evolution of care models in bronchiectasis and key areas for future innovation.

