

POSTER ABSTRACT

Integrated care services for non-COPD chronic respiratory diseases: a systematic review of patient outcomes, quality of life and healthcare use.

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Lucy Boast¹, Kushal Varma³, Georgia Swinnerton⁴, Alice Turner¹, Sarah Damery²

1: Department of Applied Health Sciences, University of Birmingham, United Kingdom

3: University Hospitals Birmingham NHS Foundation Trust, United Kingdom

4: Birmingham Medical School, University of Birmingham, United Kingdom

2: Health Services Management

Background: Integrating care across health and care settings offers the opportunity to move patient care 'closer to home', address health inequalities and reduce burden on acute services. Respiratory service integration has typically focused on chronic obstructive pulmonary disease (COPD), yet other diseases such as asthma, bronchiectasis and interstitial lung disease (ILD) may be appropriate for an integrated approach.

Approach: An international systematic review was undertaken to evaluate evidence assessing the impact of integrated approaches for non-COPD chronic respiratory diseases (CRDs). Searches in Medline, Embase, CINAHL, PsycINFO, Cochrane Library and Scopus combined MeSH and individual search terms to identify studies of any interventional or observational design reporting integrated care interventions for asthma, bronchiectasis or ILD.

Eligible studies were published in English from 2014 onwards and conducted in high-income countries. Integration was defined as multi-disciplinary care across two or more settings. Studies were excluded if data could not be extracted for individual conditions of interest. Pairs of independent reviewers screened titles/abstracts and full texts; a third reviewer resolved any conflicts. Intervention characteristics and key outcomes were explored narratively. Meta-analysis was conducted for asthma control and quality of life (QOL) outcomes. No other outcomes were appropriate for meta-analysis due to high heterogeneity.

Results: Sixteen studies met the inclusion criteria from 14246 titles/abstracts. Studies were from seven countries: nine randomised controlled trials (seven asthma, two ILD), four cohort studies (one asthma, three ILD) and three service evaluation/observational studies (asthma). Most asthma studies (10/11) targeted patients with poor asthma control, through community or outpatient clinics (8/11) or following an emergency presentation (3/11).

Data showed small improvements in post-intervention asthma control (standardised mean difference 0.45, 95% CI -0.20 to 1.10, 5 RCTs, 966 participants, follow-up 3-12months). Small improvements in QOL scores were seen at 12months (mean difference mAQLQ score 0.39, 95% CI 0.13 to 0.66, 3 RCTs, 895 participants), however the pooled effect did not exceed the minimal clinically important difference for mAQLQ of 0.5. Some studies reported initial improvements in disease control and QOL which were not sustained, highlighting the challenge of implementing effective long-term interventions. A trend towards reduced healthcare utilisation was seen. 4/5 studies in ILD included palliative or advanced care planning.

Improvements to symptoms, advanced care planning/coordination and healthcare use towards end of life were shown in specific healthcare systems. One study including newly diagnosed patients did not find improvements in QOL but reported high patient satisfaction, emphasising the importance of considering the changing needs of patients with CRDs across their lifetime. No studies reporting integrated care interventions for bronchiectasis were identified.

Implications: This review found limited evidence for improved QOL, symptom control and healthcare utilisation for integrated care in CRDs, however high heterogeneity between study populations and outcomes limited meta-analysis. There remains a paucity of real-world evidence about integrated care for non-COPD CRDs. Achieving effective, long-term integrated care that meets the varying requirements of different CRD trajectories is a key challenge for future service designs.