Conference abstract

Effectiveness of COPD disease management programmes: a systematic review and meta-analysis

Isabelle Peytremann-Bridevaux, MD, MPH, DSc, Institute of Social and Preventive Medicine (IUMSP), Healthcare Evaluation Unit, Central Hospital of University Vaudois and University of Lausanne, Lausanne, Switzerland

Philippe Staeger, MD, MPH, Department of Ambulatory Care and Community Medicine, University of Lausanne, Lausanne, Switzerland

Pierre-Olivier Bridevaux, MD, MSc, Division of Pulmonary Care, Department of Medicine, University Hospitals of Geneva, Geneva, Switzerland

William A. Ghali, MD, MPH, Departments of Medicine and Community Health Sciences, University of Calgary, Calgary, Canada

Bernard Burnand, MD, MPH, Institute of Social and Preventive Medicine (IUMSP), Healthcare Evaluation Unit, Central Hospital of University Vaudois and University of Lausanne, Lausanne, Switzerland

Correspondence to: Isabelle Peytremann-Bridevaux, E-mail: Isabelle.Peytremann-Bridevaux@chuv.ch

Abstract

Introduction: Disease management programmes may enhance the quality of care provided to patients suffering chronic diseases.

Objective: To systematically assess the effectiveness of COPD disease management programmes.

Methods: Computerised search of MEDLINE, EMBASE, CINAHL, PsycINFO and the Cochrane Library (CENTRAL), for studies evaluating interventions meeting our operational definition of disease management: >2 different intervention components; >2 healthcare professionals actively involved in patients' care; patient education; intervention lasting >12 months. Two reviewers evaluated 12,749 titles, fully reviewed 124 articles, identified and extracted data from 13 articles selected by using inclusion and exclusion criteria. Main clinical outcomes were: all-cause mortality, lung function, exercise capacity, health-related quality-of-life, symptoms, COPD exacerbations and healthcare utilisation. Meta-analysis of all-cause mortality could appropriately be performed (random effects model).

Results: Studies included consisted of 9 randomised controlled trials, 1 controlled trial, and 3 uncontrolled before-after trials. Results suggest that disease management programmes decrease risk of hospitalisation and modestly improve health-related quality-of-life and exercise capacity outcomes. All-cause mortality did not differ between groups (OR 0.84, 95%CI 0.54–1.40).

Conclusion: COPD disease management programmes seem to improve patient outcomes and health system utilisation outcomes. Future studies should explore the programmes' specific elements or characteristics that bring the greatest benefit.

Keywords

COPD, disease management programmes, Switzerland

Presentation slides available from:

http://www.integratedcarenetwork.org/Sweden2008/slides/01-03-peytremann-brideveaux.ppt