Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term for a group of lung diseases that include chronic bronchitis, emphysema and small airways disease. Lung damage over a long period of time impairs the flow of air in and out of the lungs and causes breathlessness.

**Pulmonary rehabilitation**
Pulmonary rehabilitation programs are clinically effective and cost effective in improving health and quality of life, reducing length of hospital stay and reducing the number of hospital re-admissions for people with COPD. Physiotherapists are an essential part of the multi disciplinary teams that run these programs.

The Canadian Thoracic Society (CTS) recommends pulmonary rehabilitation for individuals with moderate, severe and very severe COPD, and that it is initiated within one month of an exacerbation.\(^1\)

Patients with COPD will benefit from access to hospital or home-based pulmonary rehabilitation.\(^2\)

Results of a randomized controlled trial (RCT) found that for patients chronically disabled by obstructive pulmonary disease, an intensive, multidisciplinary, outpatient program of rehabilitation including physiotherapy is an effective intervention, in the short term and the long term, that decreases hospital length of stay.\(^3\) A study in 2010 evaluating the effect of pulmonary rehabilitation delivered post COPD exacerbation showed a reduction in re-admissions of 26 per cent with cost effectiveness demonstrated.\(^4\)

**Conclusion**
The clinical and cost effectiveness of pulmonary rehabilitation programs for people with COPD is well documented. Awareness of COPD amongst the general public needs to be raised as many people are unaware of the condition and the link to smoking.

The possibility of combining treatment programs for people with different diagnoses but similar symptoms is worth exploring in order to take advantage of existing expertise and to deliver cost effective services.
CASE STUDIES

A Canadian study (1) found that over one year, pulmonary rehabilitation was associated with decreased health service utilization, reduced direct costs and improved health status of COPD patients. The health status of patients enrolled in the program improved significantly following pulmonary rehabilitation, irrespective of the severity of disease. The average reduction of total costs before and after the program was $54,367 per 100 person-years or approximately $344 per person per year.

Physiotherapists at the Royal Alexandra Hospital in Edmonton are part of a new interdisciplinary COPD Self-Initiative Team (CSI). The team supports patients with mild-moderate COPD who want to make lifestyle changes to better cope with the disease, which in turn may reduce re-admissions. The physiotherapists assess the patient’s respiratory status, mobility and function and provide education on appropriate breathing/coughing exercises, activity levels and exercise to maintain quality of life and optimal function. Chest care is provided if indicated. Patients in the program appreciate the individualized care and are receptive to the information and education they receive. (12)

References
6. Alberta Health, 2013 Chronic Obstructive Pulmonary Disease - Age Standardized Prevalence
12. Alberta Health Services, Respiratory Department.

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