Chronic Obstructive Pulmonary Disease and co-morbidities: Health Related Quality of Life and Disease Progression Simulation Model

Presented by Foruhar Moayeri

Date: 3rd October 2013
Time: 2:00 to 4:00 pm
Venue: Room 410 Melbourne School of Population and Global Health, Level 4, 207 Bouverie Street, Carlton

Chronic Obstructive Pulmonary Disease (COPD) is a progressive inflammatory disease of lung tissue. The rate of progression may vary depending on risk factors such as smoking, environmental exposure to dusts or chemicals/fumes, genetic deficiency of alpha-1 antitrypsin, age, gender, socioeconomic status and a history of severe childhood respiratory infection. In addition, exposure to second hand smoke and fumes from the burning of biomass fuel has significant health impact on non-smokers. Exacerbations are the major event in the disease process that can lead to unexpected health care usage, hospitalization and a sharp deterioration of disease state. Psychological comorbidities in COPD patients are major factors in quality of life and burden of this disease.

This study is going to develop a new progression model approach to COPD disease. This model will incorporate previous models input parameters such as age, gender, smoking behaviour and pulmonary function indices; and will be extended to include other predictors of the disease progression such as comorbidities. The basic cohort population will be defined based on North West Adelaide Health Study (NWAHS) sample.

Meanwhile, this study aims to measure cost-effectiveness and cost-utility of telephone Cognitive Behaviour Therapy (CBT) for treatment of anxiety and depression comorbidities with COPD disease alongside a pragmatic randomized control trial.

In order to measure smoking habit influence on progression of COPD disease, survival analysis and relative risk mortality estimation for smokers and ex-smokers in Australian population will be conducted. This analysis is a joined work with “Smoking Termination Opportunity for InPatients (STOP)” trial, and will help to construct a dynamic smoking cessation model. In this seminar, results of quantitative meta-analysis of utility scores for COPD will be presented.

Foruhar has a clinical background in medicine. He has postgraduate degrees in public health and health economics. He has extensive experience in epidemiology conducting national epidemiological surveys in Ischemic Heart diseases, and in health care system developing health insurance tariff and maternity leave scheme. He has also spent considerable time working at national and international levels in the Ministry of Health, medical universities, WHO, UNDP and Global Fund. He has interest in economic evaluation and simulation modelling of chronic diseases.