



LIVERPOOL LUNG PROJECT NEWSLETTER

University of Liverpool Cancer Research Centre



INTRODUCTION

Welcome to the fourth edition of the Liverpool Lung Project (LLP) newsletter, where we focus on the LLP Risk Model and case-control study.

LLP RISK MODEL (written by Dr Adrian Cassidy)

An accurate, objective lung cancer risk prediction model could help healthcare professionals assess patients' risks and improve the decisions about preventive interventions or surveillance. A model-based approach was used to estimate the probability that an individual, with a specified combination of risk factors, will develop lung cancer within a 5-year period. For example, a 77 year old man with a family history of lung cancer (early onset) and occupational exposure to asbestos has an absolute risk of 3.18% (1 in 31 chance). The LLP risk model could predict approximately two thirds of lung cancer within 5-years, screening only 30% of the population. If resources were limited or the intervention carried such adverse effects as to require a very high risk population to have a strong benefit-harm balance, a subset of 10% of the population could be identified in which 34% of the cases would arise (Figure 1). Given that the predictor variables are all explicitly defined and can be readily assessed during a routine primary care consultation, the LLP risk model's application as the first stage in an early detection strategy is a logical evolution in patient care.

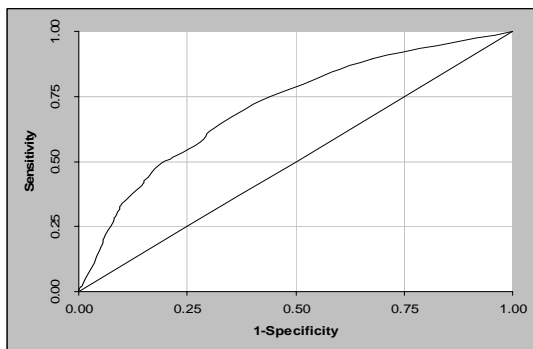


Figure 1. Receiver operating curve for predicting lung cancer within a 5-year period. The area under the curve is 0.71. The straight line represents the ROC curve expected by chance alone.

This work is currently being reviewed for publication in the British Journal of Cancer (Cassidy et al. The LLP Risk Model: an individual risk prediction model for lung cancer).

"Reducing the burden of lung cancer through the development of early detection techniques"

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CASE-CONTROL STUDY

There are now 4 centres recruiting lung cancer cases into the LLP (see figure 2 for recruitment figures in 2007).

Centre Name	Number recruited
Aintree	38
Clatterbridge	3*
Cardiothoracic Centre (CTC)	57
Whiston	8** (from April 2007)

Figure 2: Recruitment into the case-control study at LLP centres (at time of press) (*Includes 2 current LLP recruits, ** Includes 1 current LLP recruit).

Thank you to all of our collaborators for their continued support of the LLP.

Dr Aneez Ahmed is currently a Research Fellow at the CTC and has started to collaborate with the LLP research team – we look forward to working together. Dr Ahmed's involvement will assist us in the identification of suitable patients for the LLP programme.

PUBLICATIONS & CONFERENCES

Gorlov et al (2007). *Cancer Res.* (in press)
Cassidy et al (2007). *Epidemiology* **18**: 36-43
Cassidy et al (2007). *Int. J. Cancer* **120(1)**: 1-6
Carel et al (2007). *Occup. Environ. Med* **64**: 502-508

A number of posters were also presented at the AACR meeting in Los Angeles in April.

CONTACT

If you have anything you would like to discuss about the LLP, please contact the Project Manager; Dr Dawn Williams on 0151 794 8952 or further information is available on our website at www.liverpoollungproject.co.uk.