



## What's hot that the other lot got

Candy Lee

### OVERWEIGHT CHILDREN HAVE A HIGHER RISK OF ASTHMA

Overweight or obese children are more likely to develop asthma compared with children of a healthy weight, according to this large population-based longitudinal study (*American Journal of Epidemiology* Published Online First: 6 Aug 2013, doi:10.1093/aje/kwt093). Results from the analysis of health records from 623 358 children (aged 6–19 years) showed that compared to children of healthy weight, the adjusted rate of asthma for overweight, moderately obese and extremely obese children were 1.16, 1.23 and 1.37, respectively. Also noted was the tendency for increase in the severity of asthma for moderately and extremely obese asthmatic children.

### HIGH DOSE N-ACETYLCYSTEINE AND COPD

In this double-blind randomised control trial, investigators assigned 120 patients with stable mild or moderate COPD to receive either 1 year of N-acetylcysteine (NAC) 600 mg twice daily or placebo (*Chest* 2013;144:106–18). At 1 year, patients receiving NAC had significant improvement in small airways function, and reduction in frequency of exacerbations. High-dose NAC may have a future role in the management of COPD due to its mucolytic and antioxidant effects, but further randomised trials are still needed.

### HIGHER SURVIVAL RATES ASSOCIATED WITH TRANSPLANTATION OF BIGGER LUNGS

Lung size matching can be estimated using predicted total lung capacity (pTLC)

ratio, with a ratio of 1.0 being a perfect size match. This cohort study (*The Annals of Thoracic Surgery* 2013;96:457–63) analysed the size of the lungs used in each of 6997 double and single lung transplant patients in the USA between 2005 and 2010 by using pTLC ratio of the donor relative to the recipient. Bilateral lung transplant patients were found to have a 7% decrease in the risk of death at 1 year for each 0.1 increase in pTLC. Those who received transplanted lungs with an average ratio of 1.3 had a 30% increased chance of survival in the first year. This study suggests that a higher pTLC ratio (implying an oversized allograft) is associated with improved survival after lung transplantation.

### REDUCTION IN DISEASE PROGRESSION OF IDIOPATHIC PULMONARY FIBROSIS WITH ANTIREFLUX TREATMENT

Gastro-oesophageal reflux is a common complaint in patients with idiopathic pulmonary fibrosis (IPF). The authors of this study (*The Lancet Respiratory Medicine* 2013;1:369–76) investigated the association between antireflux treatment and disease progression in IPF by analysing patient data from three randomised controlled trials. After adjustments for sex, baseline FVC and DLCO, patients taking antireflux treatment at baseline were noted to have less reduction in forced vital capacity compared with patients not receiving treatment (0.05 L reduction vs 0.14 L, respectively) at 30 weeks, suggesting an association of non-treatment of gastro-oesophageal reflux with disease progression.

### TARGETING LOW-DOSE CT SCREENING FOR LUNG CANCER

Three annual low-dose chest CT scans were shown to lower lung cancer-related deaths

by 20% in current or former smokers with a heavy smoking history ( $\geq 30$  pack years) by the National Lung Screening Trial (NLST). To ascertain the individuals that would benefit most from this screening, researchers extracted data from the NLST control group to develop a risk prediction model for lung cancer-related death and divided the NLST patient group into 5 quintiles of 5-year risk for lung cancer death (*The New England Journal of Medicine* 2013;369:245–54). Up to 90% of patients with preventable lung cancer deaths were from the highest risk category (top 3 quintiles). By limiting screening to patients from the highest risk category the number needed to screen reduced from  $>300$  to 161 and the number of false positives reduced from  $>100$  to 65. The authors concluded that these findings provide evidence for 'risk based' targeting of screening for lung cancer with CT.

### ALLERGIC PHENOTYPE IN COPD PATIENTS

Two independent populations of patients with COPD who have evidence of an allergic phenotype have been shown in this study (*American Journal of Respiratory and Critical Care Medicine* 188:187–92) to have greater severity of COPD, more lower respiratory tract symptoms (chronic phlegm, chronic cough and wheeze) and more exacerbations requiring medical treatment compared with those without evidence of allergic disease. The US authors analysed data from two cohorts, one, a nationally representative sample and the second, a COPD-specific cohort. This has implications for future management of this population group as treatment of allergic disease may improve morbidity although additional studies are required to investigate this relationship further.

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**Correspondence to** Candy Lee, Abertawe Bro Morgannwg University Health Board, Singleton Hospital, Sketty Lane, Swansea SA2 8QA, UK; candy.lee@wales.nhs.uk