



## What's hot that the other lot got

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### RISK FACTORS FOR BRONCHIECTASIS IN CHILDREN WITH CYSTIC FIBROSIS

By age 5 years, 50–70% of children with CF have bronchiectasis. This longitudinal study undertook a CT and BAL on 78 children diagnosed with CF on the newborn screening test aged 3 months, 1 year, 2 years and 3 years when clinically stable (*N Engl J Med* 2013;368:1963–70). They showed that persistent free neutrophil elastase activity in the BAL at 3 months was predictive of persistent bronchiectasis at 12 months and at 3 years of age.

### LOW DOSE CT SCANNING FOR SCREENING FOR LUNG CANCER

This national lung screening trial allocated smokers with a 30 pack year history to yearly screening with either low dose CT or chest radiography (*N Engl J Med* 2013;368:1980–91). All nodules >4 mm in the axial plane were considered to be positive on CT and on CXR all non-calcified nodules or masses were considered to be positive. In the CT group 27.3% versus 9.2% in the CXR group had a positive screening result. In the CT group 6369 had at least one diagnostic procedure (including imaging) versus 2176 in the CXR group. Lung cancer was diagnosed in 1.1% of the CT group and 0.7% of the CXR group. There was a higher incidence of stage IA cancer in the low dose CT group.

### PNEUMONIA RISK IN PATIENTS WITH COPD TREATED WITH FIXED COMBINATION INHALERS

This observational trial looked at primary care patients treated with either budesonide/formoterol or fluticasone/salmeterol and the rate of the patients developing pneumonia (*BMJ* 2013;346:f3306). A large Swedish cohort of patients was

matched using propensity scoring. They were followed for 10 years for an episode of pneumonia either in primary or secondary care. There were more episodes of pneumonia per 100 patient years in those treated with fluticasone/salmeterol, a longer hospital stay and an increased mortality. This persisted once the equivalent beclomethasone dipropionate dose was calculated.

### HIGH DOSE OSELTAMIVIR AND INFLUENZA SURVIVAL

In this randomised trial, double the recommended dose of oseltamivir (150 mg BD vs 75 mg BD) was given to adults and children diagnosed with swab-positive influenza or evidence of severe influenza (including H1N1), who had had respiratory symptoms for more than 10 days (*BMJ* 2013;346:f3039). The rates of viral RNA in nasal and throat swabs were analysed to look for viral clearance. The increased dose of oseltamivir was well tolerated though there was no difference in the rates of viral clearance. This has implications in view of the emergence of H7N9 and the potential for further influenza epidemics.

### DAMP AND MOULD AND ASTHMA DEVELOPMENT

In this European longitudinal study, 7104 young adults who did not have asthma at baseline were followed for 9 years (*Occup Environ Med* 2013;70:325–31). Data on accommodation was collected at baseline and 9 years by questionnaire and inspection, looking for evidence of water damage or mould spots. There was an excess of new asthma cases (RR 1.46) in those in water damaged accommodation at baseline and in those in accommodation with visible mould spots at baseline (RR 1.49). The risk was higher in those who had known multiple sensitivities and those sensitised to moulds. This has been postulated as a potential cause of 5–15% of adult asthma.

### OBLITERATIVE BRONCHIOLITIS IN FIBREGLASS WORKERS

Six workers have been described after developing obliterative bronchiolitis (*Occup Environ Med* 2013;70:357–9). All were involved in preparing fibreglass with styrene resins, mainly in boat building, at five different work sites. The disease came on rapidly without any unusual exposures. Two had lung transplants; one died while waiting. The diagnosis was confirmed histologically in four of the patients. The precise causative agent is not yet known.

### ASTHMA IN PREGNANCY AND FETAL ABNORMALITIES

A systematic review looked at cohort studies from 1975 to 2012. There were 21 studies included (*BJOG* 2013;120:812–22). There was an increased risk of cleft palate, with or without cleft lip and neonatal hospitalisation. There was no effect on major malformations or still-birth. There was no relationship with exacerbations and use of inhaled bronchodilators or inhaled corticosteroids.

### HIV AND COPD

In a cohort of patients with HIV who were matched for smoking and sex, the cohort with HIV was seen to have a higher prevalence of cough, dyspnoea and COPD. Their lung function showed a decreased  $FeV_1$  and FVC. The predictors were current smoking and previous bacterial pneumonia (*Infection* 2013;41:347–53).

### MUC5B POLYMORPHISM AND PULMONARY FIBROSIS

This population study looked at the cohort in the Framingham Heart Study, who had all had volumetric thoracic CT and spirometry (*N Engl J Med* 2013;368:2192–200). They were genotyped for MUC5B. The CT was evaluated for interstitial lung abnormalities and 177 scans had interstitial abnormalities. The MUC5B polymorphism was associated with double the odds of having interstitial changes (OR 2.7). For definite fibrosis the OR was 6.3. A history of smoking did not change the odds.

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