airwaves

Wisia Wedzicha, *Editor in Chief*

PNEUMOCOCCAL VACCINATION IN COPD

Pneumococcal disease is a major public health problem and is important in patients with chronic obstructive pulmonary disease (COPD). Although the pneumococcal polysaccharide vaccine (PPV) has been available for some time, there has been debate as to its effectivesness, particularly in the elderly and other at risk groups. In this month's *Thorax* we publish a randomised controlled trial by Alfageme and colleagues on the use of the 23-valent PPV in COPD patients, with community acquired pneumonia (CAP) as the primary outcome. Overall, there were no significant differences in CAP between the intervention and non-intervention groups and the efficacy of the vaccine in the whole group was 24%. However, in patients under 65 years and in those with more severe airflow obstruction, PPV was effective in preventing CAP. The authors conclude that younger COPD patients with more severe disease need vaccination. In the accompanying editorial Hall discusses the UK policy of vaccinating all individuals aged 65 years or over. He concludes by suggesting that new approaches of improved conjugated vaccines with more serotypes could be tested as priming vaccines in the elderly, followed by vaccination with the 23-valent PPV as a booster. This is certainly a topic for future larger controlled studies in the elderly and COPD patients.

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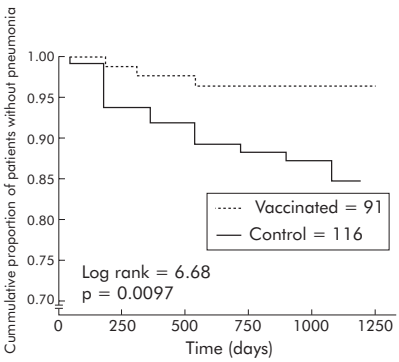

Kaplan-Meier survival curve showing the cumulative proportion of patients <65 years without pneumonia during the follow up period.

DELIVERING CPAP FOR OSA

Continuous positive airway pressure (CPAP) is a highly successful treatment for obstructive sleep apnoea (OSA). However, despite widespread application, the optimal way to initiate CPAP has not been evaluated and various devices including more costly autotitration CPAP machines are now available. In this issue West and colleagues describe a 6 month study in which three different types of CPAP delivery including autotitration and fixed pressure were tested. The authors conclude that the method of determining the CPAP pressure had no effect on clinical outcomes and autotitration methods were not superior to other CPAP modes. In the accompanying editorial Mulgrew and Fleetham discuss further data from this study which show that blood pressure is reduced by CPAP at 2 months but not at 6 months after the start of treatment. They conclude that there is currently no evidence that patients with OSA who are asymptomatic should be treated with CPAP with the prime objective of reducing blood pressure.

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QUANTITATIVE CYTOKINE MEASUREMENTS IN ASTHMA

Asthma is now recognised to be predominantly a Th2 driven inflammatory condition and, in this month's *Thorax*, Truyen and colleagues describe the quantitative evaluation of airway inflammation in asthma using real time RT-PCR analysis in induced sputum samples. The authors confirmed the predominance of Th2 inflammatory cytokines in both allergic and non-allergic asthma and related this to hyperreactivity and exhaled nitric oxide levels. However, the Th1 cyokine interferon-γ reflected asthma severity. These elegant techniques can now be used in larger scale studies of airway inflammation and also to evaluate the effects of new treatments in asthma.

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RISK OF PM_{10} IN YOUNGER CHILDREN

It is now recognised that exposure to particulate matter from fossil fuel combustion with a diameter of <10 μM (PM_{10}) can exacerbate a number of respiratory conditions in children and young adults, but the effect on younger children is unclear. In this month's *Thorax* Pierse and colleagues describe a study of the relation between exposure to locally emitted primary PM_{10} and respiratory symptoms in children between the ages of 1 and 5 years. The authors report an association between PM_{10} and the prevalence and incidence of a cough without a cold and wheeze. In the accompanying editorial Delfino discusses the importance of these results and concludes that the impact of high traffic exposure on a neighbourhood could be greater than initially appreciated and is likely to rise in the future.

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THORAX AND EXACERBATIONS OF AIRWAYS DISEASE

In this issue of *Thorax* we publish the second review in our series on COPD exacerbations. This article by Stockley and Sapey considers the aetiology of COPD exacerbations. Exacerbations of airways disease lead to considerable morbidity and impairment of health status and are an important target for treatment. There has therefore been much emphasis on this topic recently, with considerable research effort. The series on COPD exacerbations will have a total of six reviews, and will be followed by a series on asthma exacerbations and finally a series of reviews on exacerbations of cystic fibrosis and bronchiectasis. We are very grateful to all the authors who have produced informative and up to date reviews on time and we hope that all *Thorax* readers will find these a valuable educational resource.

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