What's hot the other lot got

Benjamin Prudon

AZITHROMYCIN MAINTENANCE TREATMENT REDUCES COPD EXACERBATIONS

Macrolide maintenance therapy is increasingly being used in COPD. Uzun *et al* report the results of the COLUMBUS trial which investigates the use of azithromycin in COPD (*Lancet Resp Med* 2014;2:340–241). A total of 92 patients with COPD suffering from three or more exacerbations per year were randomised to receive 500 mg azithromycin three times a week or placebo for 12 months. The results showed a significant reduction in the exacerbation rate in the treatment group with an exacerbation rate of 1.9/year compared with 3.2/year in the placebo group. There were also less adverse events in the treatment group compared with placebo, with diarrhoea the most frequently occurring adverse event in the treatment group (occurring in 19% of patients).

SMOKING PREVALENCE OF ETHNIC MINORITY GROUPS WITHIN THE UK

The promotion of smoking cessation in the UK through public health campaigns and legislation has resulted in significant reductions in the number of active smokers. However, there are limited data on the current smoking prevalence in those of ethnic minority communities within the UK. Aspinall *et al* (*Public Health* 2014;128:297–306) have used data from the Integrated Household Survey and the GP Patient Survey (2012) to establish smoking prevalence in a wide range of ethnic groups in England and Wales. Overall, 24% of men and 19% of women born in the UK were current smokers. The highest smoking rates were seen in those born in Eastern European countries such as Latvia, Lithuania and Slovakia where prevalence rates were over 50% in men and over 30% in women. Gypsy or Irish travellers also had a high prevalence, men 39% and women 35%.

Correspondence to Dr Prudon Benjamin, Newcastle Regional Sleep Service, Freeman Hospital, Freeman Road, Newcastle upon Tyne, NE7 7DN

PREOPERATIVE CHEMOTHERAPY SIGNIFICANTLY IMPROVES OVERALL SURVIVAL IN NON-SMALL-CELL LUNG CANCER

Previously published reviews combining whole RCT datasets have indicated preoperative chemotherapy in non-small-cell lung cancer (NSCLC) patients improves survival; however, there are limitations to this methodology. The NSCLC Meta-analysis Collaborative Group has conducted a systematic review and meta-analysis of individual participant data to provide more clarity on this topic (*Lancet* 2014;383:1561–71). They included 2385 patients from 15 RCTs comparing chemotherapy with subsequent surgery versus surgery alone. Patients were mostly men (80%) with a median age of 62-year, with clinical stage IB–IIIA tumours (93%). The analysis showed a 13% reduction in the relative risk of death, and a 5% absolute improvement in survival at 5 years (from 40% to 45%) in patients who had chemotherapy.

GOOD AIR QUALITY MAY NOT BE GOOD ENOUGH

Progressive efforts have led to substantially reduced levels of air pollution, particularly reduced levels of particulate matter (PM₁₀), sulfur dioxide and nitrogen oxide. Current WHO air quality guidelines define upper limits for exposure to these pollutants which are generally achieved in Ireland, but concern remains over the effect of background air pollution on human health. Lyons *et al* (*Q J Med* 2014;107:347–53) investigated the impact of air pollutant concentrations on in-hospital mortality for acute medical admissions in a central hospital in Dublin over a decade (2002–11). Patients from the hospital's catchment area were linked to their local pollution monitoring station. Using univariate and multivariate logistic regression to assess 55 596 admissions, they identified that mortality related significantly to each pollutant variable assessed (PM₁₀, SO₂, NO_x, as quintiles of increasing atmospheric concentration). They also noted a significant increase in respiratory and neurological admissions on days when the PM₁₀ concentration was high.

IDENTIFICATION OF A TB-SPECIFIC TRANSCRIPTOME SIGNATURE IN HOST BLOOD

TB remains widespread throughout Sub-Saharan Africa where particular challenges remain in diagnosing the condition in children. Positive microbiological culture rates are low, and children with nutritional deficiency or HIV have reduced responses to tuberculin skin testing and interferon-γ-release assays. Anderson *et al* (*N Engl J Med* 2014;370:1712–23) report their efforts to develop a novel blood based tool to aid TB diagnosis. They performed a genome-wide analysis of RNA expression in 1356 children from South Africa and Malawi suspected to have TB, of whom 33% had HIV infection. Following identification of RNA-transcript signatures associated with active TB, they found that 51 transcripts distinguished TB from other diseases and 42 distinguished TB from latent infection. Using a cohort of 1599 Kenyan children as a validation group, they reported a risk score based on the signature for TB and for diseases other than TB, which showed a sensitivity of 82.9% and a specificity of 83.6% for the diagnosis of culture-confirmed TB. Among patients with high-probable culture negative TB, sensitivity varied from 63% to 82%.

NO ADDITIONAL BENEFIT FROM HOME EXERCISE PROGRAMMES AFTER CURATIVE NSCLC SURGERY

Physiotherapy to facilitate recovery performed within the hospital environment is a standard dimension of postsurgical care. Whether more prolonged physiotherapy instruction after hospital discharge for curative NSCLC surgery is beneficial is unclear. Arbane *et al* (*Physiotherapy* 2014;100:100–7) report an RCT comparing standard care and a hospital plus home exercise programme for patients following curative surgery for NSCLC. A total of 131 subjects were recruited, with a mean age of 68. After 4 weeks, both groups had recovered their preoperative walk distance. There were no differences in physical activity, quality of life data or incremental shuttle walk tests between the two groups.

Competing interests None.

Provenance and peer review Not commissioned; internally peer reviewed.

To cite Prudon B. *Thorax* 2014;69:688.

Thorax 2014;69:688.
doi:10.1136/thoraxjnl-2014-205737