MULTI-DRUG RESISTANT TUBERCULOSIS REMAINS A SIGNIFICANT THREAT

Multi-drug resistant tuberculosis (MDR-TB) is defined as resistance to at least isoniazid and rifampicin. With increasing identification of this, the World Health Assembly in 2009 set the goal of ensuring that by 2015 all patients with TB receive the appropriate care to prevent, diagnose, and treat MDR-TB. To assess current practice, Falzon et al (Lancet Infect Dis 2013;13:690–7) have analysed data reported to WHO by 30 countries expected to have more than 1000 MDR-TB cases. Overall, cases of MDR-TB detected in the 30 countries increased by 32% from 41 758 in 2009 to 55 134 in 2011, and enrolments on treatment for MDR-TB increased by 93%. However, only 18% of the estimated cases of MDR-TB were enrolled on second-line treatment in 2011. Twenty-three countries provided outcome data. A median of 53% (IQR 41–71%) of people had treatment success, 11% (8–17%) died, 8% (2–11%) had treatment failure, 13% (8–18%) were lost to follow-up and 4% (1–14%) were not assessed.

DIFFERENTIATING BENIGN FROM MALIGNANT NODULES IDENTIFIED ON SCREENING CT

Screening programmes to identify lung malignancy in high risk populations are gaining increasing support. These often utilise low-dose thoracic CT and although this enables earlier identification of malignancy, a significant proportion of the lung nodules identified are revealed to be benign and have undergone unnecessary further investigation. In this study (N Engl J Med 2013;369:910–19) the authors investigated which factors predict the probability that lung nodules detected are malignant or will be found to be malignant on follow-up. Data from two large cohorts undergoing low-dose CT screening involving a total of 2961 participants with 12 029 nodules, of which 144 were malignant, were analysed. Factors found significant for developing a prediction model for likelihood of malignancy included older age, female sex, family history of lung cancer, emphysema, larger nodule size, location of the nodule in the upper lobe, part-solid nodule type, lower nodule count and speculation.

H1N1 VACCINATION ASSOCIATED WITH INCREASED NARCORELPSY INCIDENCE

Mass vaccination for an expected pandemic of influenza A (H1N1 subtype) was completed in Norway with the adjuvanted vaccine Pandemrix between October 2009 and January 2010. In August 2010, Norwegian authorities had been alerted to a sudden increase in the number of new cases of narcolepsy in individuals who had received the vaccination, Heier et al report the findings of the subsequent investigation of this (Sleep Med 2013;14:867–71). A total of 470 000 children were vaccinated, approximately 50% of the target population. Fifty-eight children (23 boys, 35 girls) were reported with confirmed narcolepsy after vaccination (mean age 10.5 years, range 4–19 years). The median latency from vaccination to onset of symptoms was 11 weeks. This equated to a minimum incidence of 10 of 100 000 in vaccinated children, compared to 0.5–1 of 100 000 individuals per year in unvaccinated children. The incidence in vaccinated children in the second year after vaccination reduced to 1.1 of 100 000 individuals per year, which was not significantly different to unvaccinated individuals. It is hypothesised that the raised incidence may have been a consequence of those with a genetic predisposition being exposed the vaccine’s adjuvant components.

ELECTRONIC CIGARETTES OFFER AN ALTERNATIVE APPROACH FOR FULL SMOKING CESSATION

Electronic cigarettes (e-cigarettes) which vapourise nicotine for inhalation via a battery operated device, were launched in 2004 and have rapidly become widely available and used. However, it is currently unclear how beneficial they are for full smoking cessation. Bullen et al (Lancet Published Online First: 9 Sept 2013. doi: 10.1016/S0140-6736(13)61842-5) report the results of a randomised controlled trial comparing nicotine e-cigarettes, nicotine patches or placebo e-cigarettes. At 6 months there was confirmed abstinence in 7.3% of participants (21 of 289) in the nicotine e-cigarette group, 5.8% (17 of 295) in the patch group and 4.1% (3 of 73) in the placebo e-cigarette group (no significant difference between the groups). Quit rates were initially high, then decreased in all groups, with most participants relapsing within 50 days. The authors comment that the trial was powered on predicted abstinence rates of approximately 20%, resulting in an inability to determine superiority of e-cigarettes to nicotine patches or placebo e-cigarettes.

CLARIFICATION OF PULMONARY ARTERIAL HYPERTENSION PREVALENCE IN CONNECTIVE TISSUE DISEASE

Several individual studies have revealed that pulmonary arterial hypertension (PAH) is prevalent in patients with connective tissue disease, particularly limited cutaneous systemic sclerosis where the British Thoracic Society currently recommends annual screening. To further clarify the prevalence, Yang et al (Clin Rheumatol 2013;32:1519–31) report a meta-analysis of current published data. Seventeen studies were included in the analysis, with the pooled prevalence estimate of PAH in patients with connective tissue diseases at 13% (95% CI 9.18% to 18.16%). Further analysis of those with systemic sclerosis revealed a pooled PAH prevalence estimate of 18% (95% CI 14% to 23%) when the diagnosis was based on echocardiography, compared to 8.2% (95% CI 5.2% to 11.8%) when the gold standard of right heart catheterisation was employed.

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What's hot the other lot got

Benjamin Prudon

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