81. **Sapey E,** Bayley D, Ahmed A, *et al*. Inter-relationships between inflammatory markers in patients with stable COPD with bronchitis: intrapatient and inter-patient variability. *Thorax* 2008;**63**:493–9.
82. **Vernooy JH,** Kucukaycan M, Jacobs JA, *et al*. Local and systemic inflammation in patients with chronic obstructive pulmonary disease: soluble tumour necrosis factor receptors are increased in sputum. *Am J Respir Crit Care Med* 2002;**166**:1218–24.
83. **Sapey E,** Ahmed A, Bayley D, *et al*. Imbalances between interleukin-1 and tumour necrosis factor agonists and antagonists in stable COPD. *J Clin Immunol* 2009;**29**:508–16.
84. **Dupuit F,** Jacquot J, Spilmont C, *et al*. Vectorial delivery of newly-synthesized secretory proteins by human tracheal gland cells in culture. *Epithelial Cell Biol* 1993;**2**:91–9.
85. **Matthay MA,** Robriquet L, Fang X. Alveolar epithelium: role in lung fluid balance and acute lung injury. *Proc Am Thorac Soc* 2005;**2**:206–13.
86. **Eklund CM.** Pro-inflammatory cytokines in CRP baseline regulation. *Adv Clin Chem* 2009;**48**:111–36.
87. **Hage FG,** Szalai AJ. The role of C-reactive protein polymorphisms in inflammation and cardiovascular risk. *Curr Atheroscler Rep* 2009;**11**:124–30.

Lung alert

HIV and TB: excluding those without active disease and timing of concurrent therapy

The WHO recommends the use of isoniazid preventive treatment for patients with HIV who do not have active tuberculosis (TB). Screening of patients with HIV for TB remains essential in order to enable early diagnosis and safe initiation of treatment. As the authors state, no guidelines exist as to when and how screening should occur for those patients with HIV to exclude active TB. Patients with HIV infection were enrolled in this trial from clinics in Cambodia, Thailand and Vietnam. Symptoms of patients who were culture positive for mycobacteria in sputum, urine, stool, blood or lymph nodes were compared with those who were culture negative.

The algorithm identified to have the most effective approach to ruling out a diagnosis of TB was asking questions related to a combination of three symptoms; cough of any duration, fever of any duration and night sweats lasting ≥3 weeks, in the last 4 weeks. Within the population studied, with a TB prevalence of 15%, the negative predictive value was 97%, thus reducing the numbers of false-negative results. Therefore, in a limited-resource environment, the use of an algorithm without chest radiography may have the potential to exclude the presence of active TB.

The optimal timing of antiretroviral therapy for those patients requiring concurrent treatment for TB has been a source of debate given the often poor outcomes associated with dual infection. The SAPIT (Starting Antiretroviral therapy at Three Points in Tuberculosis) trial identified 642 patients with HIV (CD4 count <500) and concurrent TB (positive sputum smear for acid-fast bacilli) in Durban, South Africa. Patients were assigned to receive 'integrated' antiretroviral therapy during TB treatment or 'sequential therapy' after the completion of treatment. Provision of prophylaxis with trimethoprim–sulfamethoxazole and daily antiretrovirals resulted in a lower rate of 5.4 deaths per 100 person years among the 429 patients assigned to the 'integrated' group (of whom 350 initiated treatment, divided into early or late groups) compared with 12.1 deaths per 100 person years among the 213 patients in the sequential treatment group—a relative reduction of 56% (p=0.003).

This study demonstrates that initiation of antiretroviral therapy during TB treatment in this patient group reduces the risk of death. Current guidelines recommend antiretroviral therapy to be given in those patients with CD4 counts <200. This study adds some support to including those with higher CD4 counts in this advice, particularly as adverse events were reportedly similar in both groups, aside from immune reconstitution events of which none resulted in deaths in the integrated therapy group.

► **Cain KP**, McCarthy KD, Heilig CM, *et al*. An algorithm for tuberculosis screening and diagnosis in people with HIV. *N Engl J Med* 2010;**362**:707–16.

► **Abdool Karim S**, Naidoo K, Grobler A, *et al*. Timing of initiation of antiretroviral drugs during tuberculosis therapy. *N Engl J Med* 2010;**362**:697–706.

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