- 147 Ekroos H, Tuominen J, Sovijarvi AR. Exhaled nitric oxide and its long-term variation in healthy non-smoking subjects. *Clin Physiol* 2000;**20**:434–9.
- 148 Ekroos H, Karjalainen J, Sarna S, *et al.* Short-term variability of exhaled nitric oxide in young male patients with mild asthma and in healthy subjects. *Respir Med* 2002;**96**:895–900.
- 149 Kisson N, Duckworth LJ, Blake KV, *et al.* Exhaled nitric oxide concentrations: online versus offline values in healthy children. *Pediatr Pulmonol* 2002;**33**:283–92.
- 150 Silkoff PE, Sylvester JT, Zamel N, *et al.* Airway nitric oxide diffusion in asthma: Role in pulmonary function and bronchial responsiveness. *Am J Respir Crit Care Med* 2000;**161**:1218–28.
- 151 Shin HW, Rose-Gotttron CM, Cooper DM, *et al.* Airway diffusing capacity of nitric oxide and steroid therapy in asthma. *J Appl Physiol* 2004;**96**:65–75.
- 152 Berry M, Hargadon B, Morgan A, *et al.* Alveolar nitric oxide in adults with asthma: evidence of distal lung inflammation in refractory asthma. *Eur Respir J* 2005;**25**:986–91.

LUNG ALERT

Interstitial lung disease and leflunomide use

▲ Suissa S, Hudson M, Ernst P. Leflunomide use and the risk of interstitial lung disease in rheumatoid arthritis. *Arthritis Rheum* 2006;**54**:1435–9

There have been numerous reports of interstitial lung disease associated with the use of the new disease modifying anti-rheumatic drug leflunomide. This epidemiological study examined the risk of developing interstitial lung disease (ILD) in patients on leflunomide.

Data from 62 734 patients with rheumatoid arthritis were examined in a case-control study. The risk of ILD was not higher for patients on leflunomide provided they had no previous methotrexate use or a history of ILD (relative risk (RR) 1.2, 95% confidence interval (CI) 0.4 to 3.1). There was, however, an increased risk of ILD with leflunomide in patients who did have a history of previous methotrexate use or ILD (RR 2.6, 95% CI 1.2 to 5.6).

The use of leflunomide as a disease modifying anti-rheumatic drug is increasing in patients with rheumatoid arthritis and reports of ILD are rising. Respiratory physicians should be aware of the potential for developing ILD.

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LUNG ALERT

Rhinovirus and severe asthma exacerbations requiring admission to hospital

▲ Venarske D, Busse WW, Griffin MR, *et al.* The relationship of rhinovirus-associated asthma hospitalizations with inhaled corticosteroids and smoking. *J Infect Dis* 2006;**193**:1536–43

Rhinovirus (RV) is the respiratory virus that has been most frequently associated with asthma exacerbations (40–60% using viral culture and molecular techniques in previous studies). This prospective, small, single centre study examined the role of RV in severe asthma exacerbations requiring admission to hospital using reverse transcription polymerase chain reaction detection in nasal wash samples at two different time points: hospital admission and 3 month convalescent follow up visit.

One hundred and one adult patients admitted with acute asthma to the Vanderbilt University Medical Centre, Nashville over a 4 year period were enrolled. Twenty one (21%) were found to be positive for RV at admission. Of these, 12 returned 3 months later for an outpatient convalescence visit; none were RV positive. Of the total 76 patients who returned for the 3 month visit, nasal wash samples were found to be positive for RV in only one. Interestingly, RV positive asthmatics had relatively mild disease and were less likely to have a history of hospitalisation for an asthma exacerbation. Current smoking history and non-use of inhaled corticosteroids (perhaps due to a high number of mild asthmatics) were significantly associated with RV infection.

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