- 27 Joshi N, Caputo GM, Weitekamp MR, et al. Infections in patients with diabetes mellitus. *N Engl J Med* 1999;**341**:1906–12.
- 28 Gilboa E. How tumors escape immune destruction and what we can do about it. *Cancer Immunol Immunother* 1999;**48**:382–5.
- 29 Andrew OT, Schoenfeld PY, Hopewell PC, et al. Tuberculosis in patients with end-stage renal disease. *Am J Med* 1980;**68**:59–65.
- 30 Chandra RK, Kumari S. Nutrition and immunity: an overview. *J Nutr* 1994;**124**:1433–55.

LUNG ALERT

Cyclophosphamide in scleroderma lung disease

▲ Tashkin DP, Elashoff R, Clements PJ, et al. Cyclophosphamide versus placebo in scleroderma lung disease. *N Engl J Med* 2006;**354**:2655–66

Around 40% of patients with systemic sclerosis will develop significant interstitial lung disease. No agent has been proved in a randomised controlled trial to be effective in this condition. This multicentre, double blind, randomised, placebo controlled trial evaluated the effectiveness of oral cyclophosphamide in patients with scleroderma who had restrictive lung function, exertional dyspnoea, and evidence of active alveolitis.

One hundred and fifty eight patients were randomised to receive cyclophosphamide (up to 2 mg/kg/day) or placebo for 1 year. There was a small but significant difference in the primary outcome measure—change in forced vital capacity (FVC)—at 12 months, favouring cyclophosphamide (-1.0 (0.92)% predicted v -2.6 (0.9)% predicted, $p < 0.03$). This benefit was maintained after a further 12 months off study medication. There was no improvement in gas transfer but small improvements were seen in the transitional dyspnoea index and some quality of life measures. Those with more severe fibrosis at baseline had the greatest benefit in FVC.

Adverse events were more common in the cyclophosphamide group, including a significantly greater incidence of leucopenia and neutropenia. The potential longer term associations with malignancy were not evaluated within this 2 year period.

This is the first placebo controlled study to demonstrate a benefit of treatment for scleroderma related interstitial lung disease. However, these benefits were small and need to be weighed against the risk of adverse side effects.

H Steer

Specialist Registrar, Royal United Hospital, Bath, UK; henrysteer@hotmail.com

LUNG ALERT

No need to stay in hospital after antibiotic switch in pneumonia

▲ Nathan RV, Rhew DC, Murray C, et al. In-hospital observation after antibiotic switch in pneumonia: a national evaluation. *Am J Med* 2006;**119**:512–8

This was a multicentre retrospective analysis during one of two 6 month periods in 1998–9 which assessed the benefit of in-hospital observation after the switch from intravenous to oral antibiotics in patients with community acquired pneumonia (CAP) aged at least 65 years. The US Medicare National Pneumonia Project database was used to create a sample population from 4341 hospitals in all 50 states of the US and the District of Columbia. 5248 patients fulfilled the eligibility criteria and were divided into two groups (2536 “not observed” and 2712 “observed for 1 day”).

There was no significant difference between the groups in 14 day hospital re-admission rate (7.8% in the “not observed” v 7.2% in the “observed for 1 day” group, $p = 0.367$) or 30 day mortality (5.1% in the “not observed” v 4.4% in the “observed for 1 day” group, $p = 0.258$). There were substantial economic implications of early discharge, with projected annual savings of up to \$27.1 million. There were a few limitations to the study; the number of days of observation after the switch was based on calendar days and not hours, and those patients who were observed for 1 day to address active medical or social reasons were also included in the “observed for 1 day” group.

The authors conclude that low risk patients with CAP can be safely discharged soon after changing from intravenous to oral antibiotics, although there was a non-significant trend to lower 30 day mortality in those observed. The potential benefits of such an approach are shorter hospital stays and, perhaps, greater patient satisfaction. However, a randomised controlled trial is required to confirm the results of this study.

M Pagaria

Intermediate Trainee in Intensive Care, Gloucestershire Royal Hospital, Gloucester, UK; dr_pagaria@yahoo.co.uk