We would like to suggest that treatment with 1,25-$(OH)_2$ vit D is likely to reveal hypercalcaemia in active tuberculosis and should therefore be given to these patients with great caution.

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1 Abbasi AA, Chemplavil JK, Faram S, Muller BF, Arnstein AB. Hypercalcemia in active pulmonary tuberculosis. *Ann Intern Med* 1979;**90**:324–8.
2 Gkonos PJ, London R, Hendler ED. Hypercalcemia and elevated 1,25 dihydroxy-vitamin D levels in a patient with end stage renal disease and active tuberculosis. *N Engl J Med* 1984;**311**:1683–5.
3 Adams JS, Sharma OP, Galad MA, Singer FR. Metabolism of 25 hydroxyvitamin D3 by cultured pulmonary alveolar macrophages in sarcoidosis. *J Clin Invest* 1983;**72**:1856–60.

**This letter was sent to the authors, who reply below.

SIR,—We would like to thank Dr Cadranel and colleagues for their interest and comments. The paper by Abbasi *et al*[1] to which they refer showed transient hypercalcaemia in 22 of 79 patients on treatment for tuberculosis, all but one receiving vitamin D supplements. Patients were either white or black, presumably of negro descent, and no serum vitamin D measurements were made. The paper by Gkonos *et al*[2] refers to a single 34 year old black patient who developed tuberculosis while on $25(OH)D_3$ and calcium supplements for presumed renal osteomalacia. The sudden hypercalcaemia, fall in $25(OH)D_3$, and rise in $1,25(OH)_2D_3$ at the time is said to be related to extrarenal production of $1,25(OH)_2D_3$ in a manner analagous to that seen in sarcoidosis. Both studies took place in the USA. The study carried out by Cadranel *et al* suggests that conversion of 25 to $1,25(OH)_2D_3$ occurs in alveolar macrophages in tuberculosis.

We cite separate studies based in the UK[3,4] which show that antituberculous chemotherapy depresses serum vitamin D and we have shown similar results in patients under treatment in Cardiff.[5] We would like to make the following observations: (1) Hypercalcaemia in granulomatous disease appears to be the exception rather than the rule. (2) Both studies referred to by Cadranel *et al* took place in the USA, where sunlight, and consequent sensitivity to $25(OH)D_3$, may be more plentiful than in the UK. (3) A recent large study in which calcium levels were observed during antituberculous chemotherapy and which was carried out in the UK showed, if anything, evidence of hypocalcaemia.[6] (4) An increasing proportion of tuberculosis in the UK is seen in subjects of Indian subcontinent ethnic origin (that is originating from India, Pakistan, and Bangladesh), a population known to be generally deficient in vitamin D.

We would conclude that in "at risk" groups of patients in the UK a strong case can be made for vitamin D supplementation during antituberculous chemotherapy. Further studies are required, however, before supplementation can be recommended and practised and we would concur with Cadranel *et al* that careful patient selection and frequent monitoring of calcium levels would be needed if vitamin D supplementation is given. Vitamin D should be given to those who need it and not to those who do not.

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1 Abbasi AA, Chemplavil JK, Faram S, *et al.* Hypercalcemia in active pulmonary tuberculosis. *Ann Intern Med* 1979;**90**:324–8.
2 Gkonos PJ, London R, Hendler ED. Hypercalcemia and elevated 1,25 dihydroxy vitamin D levels in a patient with end stage renal disease and active tuberculosis. *N Engl J Med* 1984;**311**:1683–5.
3 Brodie MJ, Boobis AR, Dollery CT, *et al.* Rifampicin and vitamin D metabolism. *Clin Pharmacol Ther* 1980;**27**:810–4.
4 Brodie MJ, Boobis AR, Hillyard C, *et al.* Effect of combination therapy with rifampicin and isoniazid on vitamin D metabolism. *Br J Clin Pharmacol* 1982;**14**:144–5.
5 Davies PDO, Brown RC, Woodhead JS. The effect of antituberculous chemotherapy on serum vitamin D. *Tubercle* 1985;**66**:151–2.
6 Subcommittee of the Research Committee of the British Thoracic Association. A controlled trial of six months chemotherapy in pulmonary tuberculosis. *Br J Dis Chest* 1981;**75**:141–53.

Notices

Current clinical management of cystic fibrosis

An all day symposium on this subject will be held at the Royal Society of Medicine, London, on Friday 25 October 1985. Further information may be obtained from the honorary secretary of the Section of Paediatrics, Dr TJ David, Department of Child Health, Booth Hall Children's Hospital, Charlestown Road, Manchester M9 2AA.

Current concepts in pulmonary pathology

A postgraduate course on current concepts in pulmonary pathology will be held at the Massachusetts General Hospital, Boston, Massachusetts, from 21 to 25 October 1985. Further information may be obtained from the Department of Continuing Education, Harvard Medical School, 25 Shattuck Street, Boston, Massachusetts 02115, USA.

Dr HM (Bill) Foreman Memorial Fund

The trustees of this fund invite applications for grants relating to study in respiratory disease. Limited funds are available for registered medical practitioners to assist in travelling to countries other than their own to study respiratory disease, and also for support of clinical research abroad. Intending applicants should write for further details to Dr BH Davies, Sully Hospital, Sully, South Glamorgan CF6 2YA.