

LETTERS TO THE EDITOR

Lung transplantation in patients with cystic fibrosis

We read with interest the paper by Ryan *et al* (March 1996;51:302-5) describing their experience of pulmonary transplantation in patients referred from a single cystic fibrosis centre. We thought it would be useful to present similar data from a lung transplant centre serving several cystic fibrosis centres.

The Freeman Hospital Cardiopulmonary Transplantation Unit regularly assesses patients from six cystic fibrosis centres in the UK. To date we have assessed 137 patients on site, of whom only 12 have been considered unsuitable for transplantation. Of the 125 patients accepted, 36 have undergone pulmonary transplantation, 22 remain alive with an actuarial survival of 66% at two years and 38 have died awaiting transplantation. Fifty one patients are currently awaiting transplantation with 22 on the active list and 29 on the provisional list.

Our policy is to liaise closely with referring centres and review patients when the FEV₁ falls below 30% predicted, when there is evidence of unusually rapid and progressive fall in FEV₁, or when there is an increasing need for admission to hospital. Patients are placed on the provisional list when judged suitable for transplantation but are either too well or have correctable relative contraindications.

Shortage of donor organs continues to represent the major obstacle and cause of death associated with transplantation. The median wait from acceptance to transplantation is 242 days and our experience in cystic fibrosis is that, when actively listed, approximately 50% of patients will die before surgery.

We endorse the view that it is important to discuss with potential recipients their chances of receiving lung transplantation as well as the results of this procedure.

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Chronic hypoxia and pulmonary rehabilitation

We read with interest the editorial by Dr Wijkstra on pulmonary rehabilitation in the home (February 1996;51:117-18). We agree that accurate hospital assessment and selection of the patient with COPD is essential before enrolment into a pulmonary rehabilitation programme, whether performed as an inpatient, outpatient, or mainly in the home. However, Dr Wijkstra also suggests that patients with exercise hypoxaemia should be excluded from home programmes, which will include patients with more advanced COPD.

Few studies have investigated the effects of pulmonary rehabilitation in patients with severe COPD. In a recent controlled study of rehabilitation reported by Goldstein and col-

leagues¹ patients with a forced expiratory volume in one second (FEV₁) of less than 40% predicted were selected and showed improvements in exercise tolerance and quality of life after rehabilitation. Oxygen prescription during exercise was adjusted to maintain arterial oxygen saturation at 85-90% and rehabilitation continued at home after the initial inpatient programme. In a retrospective study patients with a mean FEV₁ of 20% predicted with severe hypercapnia (Paco₂ >7.2 kPa) showed increases in exercise capacity after physical training.²

Patients with more severe COPD have a greater impairment of quality of life related to the severity of their hypoxaemia,³ and considerable anxiety and depression which further impairs activities of daily living. This patient group may be particularly suitable for home pulmonary rehabilitation programmes, although outcome measures may differ in view of the greater degree of disability present. Ambulatory oxygen devices are widely available to correct hypoxaemia during physical training and we have used these in the home without complications. More controlled studies are required to assess selection, effectiveness, safety, and costs of rehabilitation in patients with advanced COPD.

- 1 Goldstein RS, Gort EH, Stubbing D, Avendano MA, Guyatt GH. Randomised controlled trial of pulmonary rehabilitation. *Lancet* 1994;344:1394-7.
- 2 Foster S, Lopez D, Thomas HM. Pulmonary rehabilitation in COPD patients with elevated Pco₂. *Am Rev Respir* 1988;138:1519-23.
- 3 Okubadejo AA, Jones PW, Wedzicha JA. Quality of life in patients with COPD and severe hypoxaemia. *Thorax* 1995;51:44-7.

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BOOK REVIEW

Occupational Lung Diseases. WKC Morgan, A Seaton. (Pp 680; \$89.50). Philadelphia: WB Saunders, 1995. 0-721-64671-9.

The first edition of this well regarded book was published in 1975 and the authors have revised the text each decade since. Although a number of other experts have contributed, the two authors have continued to be involved in writing most of the chapters which gives the book a refreshing fluency and continuity which is so often lacking in many modern day, multi-author, multi-volume texts.

The first third of the book concentrates on the history, epidemiology, physiology, and pathophysiology of occupational lung disease. These chapters are well written and provide first class instruction for those contemplating research into occupational lung disease. I particularly enjoyed Anthony Seaton's chapter on the history of occupational lung disease and Alan Gibbs' chapter on pathological reactions of the lung to dust. One minor criticism would be that the chapter on lung function is rather long and contains detailed information on pulmonary physiology readily available elsewhere.

The remainder of the book is dedicated to specific occupational lung diseases. Each chapter opens with an account of the history and a thorough review of the epidemiology and pathological aspects of the condition. The disease coverage is comprehensive rather than encyclopaedic, but this has the advantage of producing a book which is not too weighty, and which can equally be read in the library or used in the field.

For me, however, the real strength of this book is its ability to stimulate interest in, and then guide, research into occupational lung disease. This is an excellent text and is recommended. - RH

NOTICE

Pharmacology of Asthma

A course on the Pharmacology of Asthma organised by Professor Peter Barnes will be held at Imperial College School of Medicine at the National Heart and Lung Institute in collaboration with the Royal Brompton Hospital, Dovehouse Street, London SW3 6LY on 25-28 November 1996. For further details please contact the Postgraduate Education Centre, National Heart and Lung Institute, Dovehouse Street, London SW3 6LY, UK. Telephone: 0171 351 8172. Fax: 0171 376 3442.

CORRECTION

Home assessment of peak inspiratory flow through the Turbohaler in asthmatic patients

In the paper entitled "Home assessment of peak inspiratory flow through the Turbohaler in asthmatic patients" by R J Meijer *et al* which appeared on pages 433-4 of the April issue there was a typographical error in the labelling on the X axis of figure 2. A correct version of the figure is reproduced below.

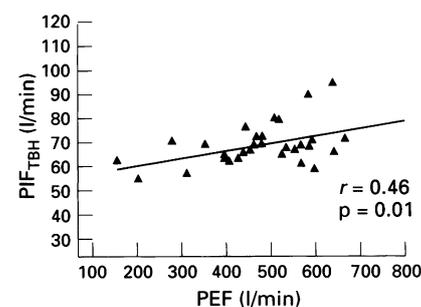


Figure 2 Correlation between peak inspiratory flow through the Turbohaler (PIF_{TBH}) and peak expiratory flow (PEF) at home. Data points are shown as individual means.