

risk of severe adverse event (adjusted RR = 1.0) – that is, increased risk was entirely due to patients with more severe disease being prescribed fenoterol. The possibility that fenoterol was intermediate in the causal pathway (and thus responsible for an increased admission rate) was addressed by demonstrating that the lower strength preparation of fenoterol (100 µg in combination with ipratropium) was associated with a higher risk of serious adverse event (crude RR = 2.2, 95% CI 0.6 to 10) than the higher strength preparation (200 µg) (crude RR = 1.5, 95% CI 0.5 to 6.1), thus demonstrating biological implausibility.

It is incorrect of Drs Taylor and Wong to imply that all changes in morbidity and mortality occurred only after 1989; fenoterol was withdrawn in New Zealand in November 1989, but mortality had been steadily declining since 1981 (fig 7) and readmissions for asthma began to fall in 1987 (fig 5). However, first admissions for asthma began to fall only after 1989. Hence there appears to be a hierarchy in the response of mortality and indices of morbidity to intervention strategies. This is not at all surprising when one considers the nature of the interventions, the fact that they are usually initiated by hospital-based specialists and then “filter” out to the community, and that the initial strategies were directed at those at obviously highest risk (previous severe life threatening attacks or recurrent hospital admissions). The reduction in readmission rates (which began in 1987) followed by about two years the availability of high dose inhaled steroids to specialists, most of whom were in hospital based practice. Furthermore, the reduction in first admissions began about two years after high dose inhaled steroids became generally available to doctors in the community.

From our review it is patently incorrect and misleading to suggest that “the only new strategy adopted in 1989 was the withdrawal of fenoterol followed by recommendations to use β agonists as required . . .”. The publicity associated with the “fenoterol debate” heightened general awareness about asthma morbidity and asthma management and led to continued initiatives along the lines outlined, particularly in the areas of asthma education and a multidisciplinary approach to the problem. A reflection of more fundamental changes in asthma management is the significant increase in sales of inhaled corticosteroids, specifically high dose preparations, after 1989 (fig 6). Although we have little information on how individuals are using inhaled β agonists now compared with the 1980s, we agree that patients are likely to have become more conservative in their use as a result of public awareness about the potential dangers of overuse of inhaled β agonists created by the fenoterol debate in New Zealand in 1989 and 1990. It is salutary to point out that these declines in morbidity and mortality occurred despite a continued increase in the total sales of inhaled β agonists in New Zealand.

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1 Garrett J, Lanes S, Kolbe J, Rea H. Risk of severe life-threatening asthma (SLTA) and death and type of prescribed β-agonist. *Am J Respir Crit Care Med* 1995 (in press).

## BOOK NOTICES

**Arterial Chemoreceptors: Cell to System.** Ronan G O'Regan, Philip Nolan, Daniel S McQueen, David J Paterson. (Pp 400; \$95.00). New York: Plenum Press, 1994. 0 306 44824 6.

This book provides “an account of the papers” presented to the 12th International Meeting on Arterial Chemoreception held in 1993 in Dublin, under the aegis of the International Society for Chemoreception. It is a very good book . . . of its kind – and while some concerns may properly be raised about “its kind”, these will hardly diminish the value of this text for anyone interested in ventilatory or circulatory control in general and arterial chemoreceptors in particular.

The volume comprises 64 concise reports by the contributors to the Dublin meeting. These are typically three pages long, including references and one figure, and are clustered under the section headings of: historical perspectives; molecular and ionic mechanisms of chemotransduction; neurotransmitters and putative neurotransmitters in the carotid body; chemosensory discharges; chemoreceptor reflexes; developmental aspects of chemoreception; morphological studies of the carotid body; and airway receptors. The list of authors is impressive – mostly a “who’s who” of arterial chemoreceptor research.

The volume is bolstered by 10 invited reviews, each averaging 12 or so pages. These authors were therefore afforded the space to place the relevant issues into appropriate conceptual context. While it is perhaps unfair to single out a particular chapter from this very good collection of reviews, one feels compelled to draw attention to “International Meetings on Chemoreceptors: Historical Perspectives” by O'Regan and Nolan for their perceptive analysis of the developing (and fading) themes in almost half a century of chemoreceptor research. I have no doubt that it will prove to be a continuing source of valuable historical information, especially for young investigators preparing theses or dissertations on chemoreceptors.

While the review section of the volume may be unreservedly recommended, the section devoted to the concise reports of the presented papers justifies some reservations – precisely because of the concision. The space constraints do not allow the implications of the new results to be developed thoroughly or, in some instances, for contrasting viewpoints even to be introduced. One can imagine lively discussions on these presentations. The necessary consequence is the added editorial burden of ensuring that significant challenges to the authors' viewpoints arising from these exchanges are actually represented in the short discussion section. The papers themselves, however, are highly informative, reflect (and in large part define) the current “state of the art”, and cover an impressive range of chemoreceptor-related topics, fully justifying the “Cell to System” subtitle.

The editorial standards are high, despite the occasional lapse such as allowing a figure to be attributed to the authors of a review chapter on the topic rather than to the authors of the original research paper from which it had been reproduced in the review.

I would recommend to anyone interested in arterial chemoreceptors that this book be put

on their “high priority list” as a valuable source of up-to-date information from major investigators in the field. The volume is dedicated to Eric Neil (a charming sketch of whom graces the forepage); I judge it a further compliment to the enterprise to believe that it would have met his exacting standards. – BJW

**Pulmonary Function: A Guide for Clinicians.** Gabriel Laszlo. (Pp 245; £22.95 (US\$37.95) paperback; £45.00 (US\$69.95) hardback). Cambridge: Cambridge University Press, 1994. 0 521 44679 1 (paperback). 0 521 43050 X (hardback).

When approached for the first time, many find pulmonary physiology a complex and daunting subject. This most recent addition to the bookshelves now sits alongside more established texts which aim to enlighten.

Any new book, in order to be successful, needs to cover its subject in a new and original way, or be aimed at an audience previously poorly catered for. This book declares itself to be aimed at postgraduates entering the field of respiratory medicine, as well as all clinicians, scientists, and technical staff working with patients in the pulmonary function laboratory. In an attempt to achieve this broad aim, early chapters cover lung function testing and the physiological principles on which these tests are based. These are then followed by a number of chapters on pulmonary function in specific respiratory disorders, and chapters on physiological principles and testing in common clinical situations in respiratory medicine such as respiratory failure. Further chapters cover exercise testing, theoretical aspects of oxygen and carbon dioxide exchange, and the control of ventilation. The book ends with an overview of the rapidly expanding and changing field of sleep-related disorders of breathing, the investigation of which places an ever increasing workload on many lung function laboratories.

This volume is probably of greatest interest to those stated as the primary target – namely, physicians entering the field of respiratory medicine – for whom the disease and problem orientated chapters are of particular use for reference. The use of mm Hg in preference to kPa (though both are quoted) may just be the author's preference, but suggests that North America is seen as a target area. As with any text, the personal style of the author will appeal to some more than others, and I would suggest a quick trip to the library before purchase (do not be put off by the small errors in the first chapter). In paperback, particularly, this book represents good value for money. – JESW

## NOTICE

### 1st European Forum of Quality Improvement in Health Care

The 1st European Forum of Quality Improvement in Health Care will be held at the QEII Conference Centre, London on 7–9 March 1996. It will allow the exchange of ideas on quality improvement in health care and provide education. The forum will consist of plenary lectures, parallel seminars and workshops and discussions and short educational courses. For more information contact: Clare Moloney, BMA Conference Unit, BMA House, Tavistock Square, London WC1H 9JP. Fax: 0171 383 6663. Tel: 0171 383 6478.