

nebulised salbutamol.<sup>3</sup> It is my impression that in life threatening asthma a continuous infusion of salbutamol is more effective than a bolus. In my hospital we recommend that a bolus of salbutamol 0.5 mg should be followed immediately by a continuous infusion of 1 mg/h.

The guidelines for both adults and children recommend that nebulised  $\beta$  agonists should be given frequently (every 15-30 minutes) only if patients are failing to improve. Studies in children have shown that when high doses of nebulised  $\beta$  agonists are given frequently the children improve more quickly and have a lower rate of admission to hospital.<sup>4</sup> Furthermore, this treatment is well tolerated. A good case can be made for giving frequent nebulised  $\beta$  agonists to all patients who cannot be discharged after a single dose of a nebulised bronchodilator.

The guidelines recommend giving either 30-60 mg of prednisolone daily or intravenous hydrocortisone 200 mg six hourly. Oral prednisolone, however, seems to be as effective as intravenous hydrocortisone while being more convenient to administer.<sup>5</sup> Why there is a discrepancy between the recommended doses for oral and intravenous administration is not clear. Hydrocortisone 200 mg every six hours has an anti-inflammatory effect equivalent to that of 200 mg of prednisolone a day.

P N BLACK

Department of Medicine,  
Private Bag 92024,  
Auckland 1,  
New Zealand

- 1 British Thoracic Society and others. Guidelines for the management of asthma: a summary. *BMJ* 1993;306:776-82. (20 March.)
- 2 Siegel D, Sheppard D, Gelb A, Weinberg P. Aminophylline increases the toxicity but not the efficacy of an inhaled beta-adrenergic agonist in the treatment of acute exacerbations of asthma. *Am Rev Respir Dis* 1985;132:283-6.
- 3 Swedish Society of Chest Medicine. High dose inhaled versus intravenous salbutamol combined with theophylline in severe acute asthma. *Eur Respir J* 1990;3:163-70.
- 4 Schuh S, Parkin P, Rajan A, Canny G, Healy R, Rieder M, et al. High versus low dose frequently nebulised albuterol in children with acute, severe asthma. *Pediatrics* 1989;83:513-8.
- 5 Harrison BDW, Stokes TC, Hart GJ, Vaughan DA, Ali NJ, Robinson AA. Need for intravenous hydrocortisone in addition to oral prednisolone in patients admitted to hospital with severe asthma without ventilatory failure. *Lancet* 1986;i:181-4.

EDITOR.—The British Thoracic Society and others' succinct guide to the management of asthma emphasises asthma as a life threatening condition and encourages nurses to give nebulised bronchodilators early.<sup>1</sup> The cautions about recognising threatening features are useful.

The management of exhausted patients who fail to respond to first line treatment and approach cardiorespiratory collapse does not receive sufficient prominence in the algorithm on asthma in accident and emergency departments. We strongly suggest that casualty officers should ask for help from senior medical staff. In particular, we would promote early involvement of anaesthetic or intensive care staff in the resuscitation of these seriously ill patients as a proportion of those requiring intubation and ventilation do so while in the resuscitation room of the accident and emergency department. Although section 4 of the protocols for the management of acute severe asthma in adults and children mentions transfer to the intensive care unit with a doctor who is prepared to intubate, if intubation is thought likely we think that this should be assessed and performed in the relatively controlled environment of the resuscitation room rather than en route.

SUSANNE HEWITT  
BOB WINTER

Queens Medical Centre,  
Nottingham NG7 2UH

- 1 British Thoracic Society and others. Guidelines for the management of asthma: a summary. *BMJ* 1993;306:776-82. (20 March.)

EDITOR.—The guidelines on the management of asthma put out by the British Thoracic Society and others are a useful guide to the pharmacological treatment of chronic asthma.<sup>1</sup> In recent years increasing evidence has suggested a causal relation between inhalation of indoor allergens, such as those derived from the house dust mite and cat, and the development and persistence of asthma in most young adults and children.<sup>2</sup>

Failure to address this issue with total reliance on inhaled medications will lead only to a transient symptomatic improvement. Indeed, the American National Institutes of Health's guidelines on managing and treating asthma state that environmental control to reduce exposure to indoor allergens is a critical component of the management of asthma.<sup>3</sup> Such measures are reviewed in a recent supplement prepared by the British Society for Allergy and Clinical Immunology.<sup>4</sup> I trust that these treatment regimens will be given more prominence in the revision of the British Thoracic Society and others' guidelines.

RICHARD SPORIK

Joint Academic Department of Child Health,  
Queen Elizabeth Hospital for Children,  
London E2 8PS

- 1 British Thoracic Society and others. Guidelines for the management of asthma: a summary. *BMJ* 1993;306:776-82. (20 March.)
- 2 Sporik R, Chapman MD, Platts-Mills TAE. House dust mite exposure as a cause of asthma. *Clin Exp Allergy* 1992;22:897-906.
- 3 US Department of Health and Human Services, Public Health Service, National Institutes of Health. *Guidelines for the diagnosis and management of asthma*. Washington: US Department of Health and Human Services, 1991. (Publication No 91-3042.)
- 4 British Society for Allergy and Clinical Immunology. The control of allergens of dust mite and domestic pets: a position paper. *Clin Exp Allergy* 1992;22(suppl 2):1-28.

EDITOR.—The guidelines for managing asthma highlight the role of the spacer device in the treatment of this disease.<sup>1</sup> This method of giving drugs is clearly important, particularly in young children,<sup>2</sup> both for chronic asthma and during acute attacks. The proliferation of spacer devices, however, makes it increasingly difficult to keep things simple. Astra, Allen and Hanburys, and, most recently, Fisons have all introduced valved spacer devices, each with a different shaped entry port for the metered dose canister. It was previously possible to obtain an adaptor to allow canisters from different pharmaceutical companies to be used in a single spacer, but this is no longer available. In addition, the diameter of one canister has been made bigger so that it no longer easily fits in another company's outer canister case.

Adherence to the stepwise recommendations would indicate the use of sodium cromoglycate as initial prophylaxis in mild asthma, with a  $\beta_2$  agonist as relief medication. Implementing this with spacer devices would necessitate the provision of two different devices, which would add to the complexity of the regimen and make compliance increasingly unlikely.

Poor compliance is a major cause of morbidity in asthma.<sup>3</sup> It is about time that the pharmaceutical companies came to an agreement about standard sizes for canisters and entry ports in the spacer devices so that we can concentrate on other causes of poor compliance.

COLIN POWELL  
RUTH WHITE  
ROBERT PRIMHAK

Department of Paediatrics,  
Sheffield Children's Hospital,  
Sheffield S10 2TH

- 1 British Thoracic Society and others. Guidelines for the management of asthma: a summary. *BMJ* 1993;306:776-82. (20 March.)
- 2 Warner JO. Treating asthma in preschool children. *BMJ* 1988;297:154.
- 3 Barnes PJ, Chung KF. Difficult asthma. *BMJ* 1989;299:695-8.

## Hospital beds in London

EDITOR.—Professor Jarman concludes that hospital beds in London should not be reduced at a faster rate than elsewhere in Britain.<sup>1</sup> However, that should not obscure the urgent need to develop primary and community care in inner London, nor the imperative to rationalise the provision of high tech specialist services and to reduce avoidable high costs. The Tomlinson report and the government's response set out in *Making London Better* focused on both these aspects, which the London Implementation Group is taking forward in conjunction with the NHS in London.

Departmental and regional statisticians will wish to debate Professor Jarman's interpretation of the data and will, I am sure, be meeting him to discuss the technical aspects further. His figures do not, however, take account of potential improvements in performance in the use of acute beds or the development of more appropriate care settings, especially for the elderly. At this stage I would merely want to support Professor Jarman's other main conclusion, that there needs to be a realignment of provision, geographically from inner to outer London and from acute specialties towards care for elderly people.

Following the further discussions with Professor Jarman and the work currently in hand within the Regional Health Authorities and London Implementation Group it will be possible to return to the statistical analysis in greater detail. In the mean time it is important to emphasise the following points:

Firstly, a large number of reports culminating in the King's Fund Commission's report and the Tomlinson inquiry report have concluded that there are too many hospitals in central London and that they are inappropriately located to serve the population.

Secondly, resource allocation to health authorities reflects the shift of population and, as Professor Jarman indicates, the internal NHS market is encouraging purchasers, including general practitioners, to seek value for money in the contracts they place, especially for elective services. Inner London hospitals must reduce their costs if they are to compete successfully in the market, and though some of the excess costs may be justified (research and development, teaching, London weighting for staff costs, etc), most are tied up in the considerable overheads involved in many old and inefficient inner city sites. The only way forward, as Tomlinson indicated, is to rationalise the number of hospital sites that are used in the inner London area.

Thirdly, there needs to be a build up of both primary and community facilities in inner London and the development of appropriate services in outer London. The £43.5m for the current year announced in *Making London Better* and the £170m capital over six years are designed to kick start the former while the regions and the outer London purchasing authorities are developing services and will continue to do so as resources are moved out of inner London. Certainly, outer London purchasers will not wish to see a continuation of the subsidies to inner London providers (£55m in 1992-3) in years to come.

Professor Jarman's analysis is a useful contribution to the debate on the future of London's health services. We should not forget, however, that there is widespread support, including from the *BMJ*, for the general direction of change. As the secretary of state said at the launch, "To do nothing is not an option."

TIM CHESSELLS

London Implementation Group,  
NHS Management Executive,  
London WC18 5EP

- 1 Jarman B. Is London overbedded? *BMJ* 1993;306:979-82. (10 April.)
- 2 Department of Health. *Making London better*. Manchester: Health Publications Unit, 1993.