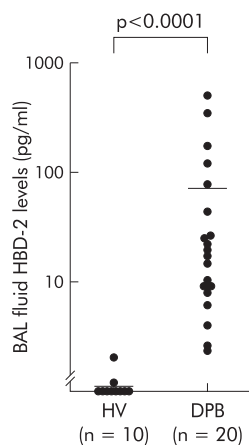


β-DEFENSINS AND PANBRONCHIOLITIS

Human β-defensins (HBD) are now recognised as important antimicrobial peptides forming part of the innate immune system. In this month's issue of *Thorax* Hiratsuka and colleagues describe a study of HBD-1 and HBD-2 in plasma and bronchoalveolar lavage (BAL) fluid in patients with diffuse panbronchiolitis (DPB) and compare the findings with human volunteers (HV). DPB is a condition associated with chronic airway inflammation and airway infection. They show that HBD-1 and HBD-2 levels are increased in the BAL fluid of patients with DPB and, in the case of HBD-2, relationships were found with inflammatory cells in the BAL fluid. Macrolide antibiotics are useful as treatment in DPB and this study shows that, after 6 months' treatment with macrolides, HBD-2 levels in the BAL fluid are reduced. The authors discuss some mechanisms for the airway inflammation in DPB and suggest that β-defensins—especially HBD-2—may be a useful marker of the condition.

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STEROIDS FOR SEVERE RSV BRONCHIOLITIS?

Respiratory syncytial virus (RSV) infection of the lower respiratory tract is an important problem in young children and, although there is some rationale for steroid therapy, previous trials have not shown consistent benefit. In this issue of *Thorax* van Woensel and colleagues describe a randomised controlled trial of the use of dexamethasone or placebo in young children with severe RSV infection who require mechanical ventilation. Overall there was no benefit with dexamethasone compared with placebo in the duration of ventilatory support. However, a post hoc analysis showed that the subgroup of children with features of bronchiolitis required a shorter duration of mechanical ventilation than those with pneumonia. As severe RSV infection is an important cause of hospital admission, the results of this trial deserve attention and further larger trials of steroid therapy in patients with severe RSV bronchiolitis who require assisted ventilation are warranted.

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LUNG VOLUME REDUCTION SURGERY IMPROVES HEALTH STATUS

There has been considerable debate about the role of lung volume reduction surgery (LVRS) in patients with COPD. In this month's issue Goldstein and colleagues describe a well designed randomised controlled study of LVRS after a period of pulmonary rehabilitation in COPD patients with specifically heterogeneous emphysema and follow up for 12 months. They describe benefits in the primary outcome—disease specific quality of life—and also improvement in exercise capacity which was sustained for a year. As the authors point out, the issue for the patient with severe heterogeneous emphysema is the balance between a relatively small risk of surgical death or complications and the potential for the longer term improvement in quality of life and reduction in disability.

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PROMISING SEVERITY SCORE FOR PNEUMONIA

In patients with community acquired pneumonia (CAP) severity assessment is essential so that appropriate treatment is instituted, together with a prediction of the requirement for hospital admission or intensive care. Lim *et al* describe the development of a severity assessment score, CURB-65, derived from data from three large international studies of CAP. The new score is based on the clinical features of age, confusion, urea, respiratory rate, and blood pressure and has enabled patients to be stratified according to risk of mortality. As Woodhead points out in the accompanying editorial, the heterogeneity of CAP makes it difficult to apply just one score to all patients. However, CURB-65 looks promising and needs to be further validated to assess whether the outcome of CAP can be improved.

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NO BENEFIT OF NASAL STEROIDS IN EPISODIC WHEEZE

Seasonal wheeze is common in preschool children and common colds can initiate most of these lower respiratory episodes. There is considerable interest in the interaction between the upper and lower airway, and thus treatment of the upper airway could prevent these episodes. In this issue of *Thorax* Silverman and colleagues test the hypothesis that topical nasal corticosteroid therapy could reduce the frequency and severity of lower respiratory symptoms. In a randomised controlled trial of 12 weeks' treatment with topical fluticasone in preschool children they found no effect on the number of lower respiratory episodes, upper respiratory colds, or on other outcomes such as nocturnal symptoms. It therefore seems that nasal corticosteroids have no effect on upper airway inflammation, although this issue was not specifically addressed. We need more information as to how respiratory viruses lead to episodic wheeze in children.

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