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LETTERS TO THE EDITOR

Guidelines for care during bronchoscopy

Guidelines for care during bronchoscopy were agreed by the British Thoracic Society in January 1993.[1] A retrospective audit of adherence to these guidelines in Scotland was performed for 23 hospitals by means of a written questionnaire and the results were presented at a recent meeting of the Scottish Thoracic Society.

Of the 33 respiratory consultants who replied to our survey, 31 routinely applied pulse oximetry during bronchoscopy, 31 wore gloves, but only eight wore a gown, four a mask, and three goggles during the procedure, despite recommendations that mask, gown, gloves, and close fitting eye protection should be worn in all cases. Resuscitation equipment was available in the bronchoscopy suite in 31 cases, and in all but one case a nurse or second doctor was present during the procedure. Twenty eight consultants reported that their bronchoscopy nurses adhered to the policy of the BTS Working Party on Infection Control.[2] In 30 of the 33 replies ECG monitoring was available for patients with known cardiac problems, and in all cases antidotes were available for potentially respiratory depressant drugs. In general, adherence to the BTS guidelines on care during bronchoscopy is satisfactory, but in view of non-compliance with the wearing of masks, gown and goggles, these components need to be re-addressed.

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Apnoea in Duchenne muscular dystrophy

Drs Khan and Heckmatt (February 1994;49: 157–61) concluded that "sleep related breathing abnormality in Duchenne muscular dystrophy is initially obstructive . . .". We have recently performed a night time study of six patients with Duchenne muscular dystrophy and reached somewhat different conclusions.[1] Like them, we also observed predominantly obstructive apnoeas in some but not all patients (two out of six); both were snorers and had macroglossia. Four patients had central apnoeas only. This predominance of central events would agree with the data published several years ago by Smith *et al.*[2] However, as correctly pointed out by both Smith *et al* and Khan and Heckmatt, obstructive apnoeas can be mistakenly identified as central (the so-called *pseudocentral* apnoeas) when the weak respiratory muscles cannot move the thorax against a narrowed or closed upper airway. To classify such events properly, oesophageal pressure recordings are recommended. Neither Khan and Heckmatt, Smith *et al*, nor ourselves used this method. However, Quera-Salva *et al*[3] used oesophageal pressure recording to study sleep respiratory disturbances in patients with myasthenia gravis. Although this is a different disease, it is interesting to note that, with this gold standard technique, most of the respiratory events at night were of central origin.[3] We therefore believe that the conclusion of Khan and Heckmatt, that most of the apnoeas in patients with Duchenne muscular dystrophy were obstructive, has to be validated using appropriate methodology. Their conclusion is also weakened by the fact that the sleep studies were carried out at home in a non-supervised fashion and were analysed in a semi-automatic way. This approach would be a valuable one in screening or epidemiological studies but it is probably not appropriate for pathophysiological research. To obtain accurate and reproducible data such studies have to be performed under supervision and to be manually scored.[1,2] It is important to clarify the nature of the sleep respiratory events in patients with Duchenne muscular dystrophy because it may have therapeutic implications. If the most predominant respiratory event is obstructive apnoea, nasal continuous positive airway pressure (CPAP) should be effective. CPAP is cheaper and easier to use than intermittent positive ventilation, which nowadays constitutes the treatment of choice for patients with Duchenne muscular dystrophy and respiratory failure.

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Chest physiotherapy in cystic fibrosis

I am concerned that the paper by Miller *et al* (February 1995;50:165–9) is not a valid comparison of autogenic drainage and the active cycle of breathing techniques (ACBT) as stated.

ACBT is a method of physiotherapy which includes thoracic expansion exercises, breathing control, and the forced expiration technique (FET). The FET is an important component combining forced expiration (huffing) and breathing control. Several huffs to low lung volume interspersed with breathing control are often needed before secretions are mobilised from the smaller peripheral airways to the larger airways.[1,2] It is only when the secretions have reached the larger proximal airways that the huff from high lung volume is required. The forced expiration technique described in the paper of Miller *et al* is similar to that above, but there is very good reason to believe that the actual method performed by the patients was "one huff from mid to low lung volume followed by another huff at a higher lung volume." Whilst this difference may appear subtle, to a physiotherapist and patient it is a major difference in technique and does not correspond with the technique previously described in the literature.[1–3]

The statement that the two treatment regimens used in this study were equally as good is not in dispute, but the claim that one of the regimens was ACBT is cause for concern. If my belief is correct, this study was not a true comparison between ACBT and autogenic drainage. The results are likely to mislead medical practitioners, physiotherapists, and patients and could inappropriately influence the direction of future research. Further studies are required to provide a valid comparison between these two techniques.

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AUTHORS' REPLY In the first draft of the paper the description of ACBT differed from the published version. The forced expiratory technique was described as "one huff from mid to low lung volume, followed by another huff at a higher lung volume. Patients were encouraged to cough and expectorate only if