

the lung in this setting may be difficult, as noted by Ayzenberg *et al* and others.¹⁻³

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Premedication for fiberoptic bronchoscopy

SIR.—I would like to comment on the study of premedication for fiberoptic bronchoscopy by Dr PJ Rees and others (August 1983 p 624). The authors reveal their dissatisfaction with current premedication techniques both before and after their study, an opinion which is hardly surprising given their handling of the premedication drugs.

Firstly, experience derived from surgical anaesthetic practice may not be directly relevant in the context of short procedures such as bronchoscopy. Thus it cannot be assumed that the antitussive action of papaveretum, effective during anaesthetic induction and continuous tracheal intubation, will be reproduced during a procedure in which a bronchoscope is manipulated into upper airways and is continually manoeuvred within them. Further, as topical analgesia is always used, the antitussive and analgesic properties of papaveretum are necessarily of little significance. Furthermore, although papaveretum has a sedative action, it is not a good anxiolytic,¹ a more relevant consideration for short, invasive procedures, particularly when undertaken on an outpatient basis. Diazepam is a good anxiolytic and, in combination with atropine, it provides useful amnesia. The authors have, however, continued to use the intramuscular route, which results in an unpredictable action, slower than the oral route, by which it has been largely superseded when diazepam is used by anaesthetists.¹ The authors have compounded these errors by allowing an inadequate interval between administration of the premedication and the bronchoscopic procedure. Diazepam if given orally would have an effect after 20-40 minutes with a peak at 60 minutes²; and if given intramuscularly the effect would be even slower, if it was effective at all. Intramuscular papaveretum has a time of onset of 15-30 minutes and a peak at 45-90 minutes.¹ These times are considerably in excess of those allowed by the authors and go a long way to explain the non-significant differences between the premedication methods described and why the patients' assessments were less favourable than the bronchoscopists'. To be effective as a premedication regi-

men the drugs used must reach the peak of their desirable properties at the time of the bronchoscopy and they must possess properties which are appropriate for the procedure; both features were largely absent in the study of Dr Rees and his colleagues.

The message that does come across is that topical analgesia of the upper airways is of prime importance during bronchoscopy. This is indicated by the patients' unpleasant memories of the procedure, and suggests considerable shortcomings in this aspect of fiberoptic bronchoscopy. Unless this is adequately controlled, assessments of premedication techniques will be misleading. When it is adequately controlled the use of premedication other than atropine as a sialogogue may be unnecessary.³

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**This letter was sent to the authors, who reply below.

SIR.—Dr Benfield questions the use of papaveretum and diazepam in the way we used them in our study of premedication. The drugs were chosen because they are widely used in this context; for instance, intramuscular papaveretum and intramuscular diazepam were the two preparations used with an anticholinergic agent in a series of transbronchial biopsies from the Brompton Hospital.¹ Papaveretum was used in two other large studies totalling over 700 patients from the Brompton Hospital.^{2,3} The timing was designed to achieve the start of the peak effect of the drug at about the time of the start of the bronchoscopy. Inevitably, there are often unexpected delays after the premedication has been given, and we feel that it is important to make sure that the effect has not been lost by the time the procedure is done. From our reading we take the peak narcotic effect of opiates to be 30-60 minutes.⁴ Diazepam was given intramuscularly so that a blind comparison with papaveretum could be used. It is often used in this way for fiberoptic bronchoscopy and we disagree that the effect would not occur until later than 60 minutes. The peak blood level after intramuscular administration is achieved by 30 minutes.⁵ We feel therefore that the drugs were reaching the peak of their desirable properties through the period of the bronchoscopy.

We share Dr Benfield's feeling of dissatisfaction with these regimens, and this was the original reason for doing the study. We agree that topical analgesia of the airways is extremely important and we feel that attention to this, together with the use of intravenous diazepam as necessary, provides a suitable regimen.

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