

## CORRESPONDENCE

# Patient compliance with inhaled medication: Does combining beta-agonists with corticosteroids improve compliance?

To the Editor:

We read with interest the paper by Bosley, Parry and Cochrane (*Eur Respir J.*, 1994, 7, 504–509) on patient compliance. The study conducted has highlighted some of the problems inherent in a study of this type. We agree that compliance is a multi-factorial problem.

We do not feel that the study addresses the fundamental potential advantage of combination inhalers *ie.*, one inhaler *versus* two, as this study actually compares two (combination plus salbutamol) *versus* three (individual inhalers plus salbutamol).

We also have some questions relating to the methodology and concerns with the conclusions drawn from the results. Were patients selected for the study on the basis of symptomatology, bronchodilator use in the line with British Thoracic Society guidelines? Had they previously received anti-inflammatory therapy? Answers to these questions will determine whether the group studied represent typical patients found in group practice or whether the group are already highly selective.

30% of patients were lost to follow-up from the study. As the authors rightly point out, at least a proportion of these are likely to be non-compliers.

A further 30% of the Turbohaler Inhalation Computers (TIC) failed to record sufficient information to accurately interpret their data (despite the four methods of data analysis).

The low levels of rescue bronchodilator use suggest

good asthma control and raise the question of whether their patients really needed steroid therapy. Did rescue bronchodilator use reduce over the course of treatment?

Reviewing the results presented suggest to us that there is a difference in compliance between the treatment groups. From figure 1, Comparing good compliance ( $\geq 80\%$  average compliance) results were:

Budesonide 9/37 (24%), Combination MDI 14/36 (39%).

For poor compliance ( $< 50\%$  prescribed doses):

Budesonide 20/37 (54%), Combination MDI 11/36 (30%), Terbutaline 16/34 (47%).

The authors are of the view that compliance is a patient-dependent and not a treatment-dependent issue. We are of the opinion that treatment does affect compliance and that the results show a surprisingly good benefit of the combined inhaler over the two inhalers separately. There was a 62.5% increase in good compliance and 44% reduction in poor compliance *versus* budesonide alone. All this in a group already shown to be compliant (at least in part) by completing the study.

We agree that further approaches to this whole area are needed but do not believe that therapeutic pragmatism (such as the use of combination inhalers) should be ignored.

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## REPLY

From the authors:

In response to the letter from AG Benbow and IP Naya of Fisons Pharmaceuticals we would like to make the following points.

As stated in the paper, patients were recruited from general practices and a hospital outpatient clinic. Diagnosis had been made by their GP and the majority of patients were already on inhaled corticosteroids, they were not subselected any further. (It is worth noting that there is no evidence that selected groups show better compliance with asthma medication). The aim of the study was not to improve or change their treatment, as these patients were already stable, but to observe the level of compliance in as natural a setting as possible. Rescue bronchodilators were provided in the form of MDIs. Their use was estimated by weight, and therefore the time at which they were used over the 12 week period is not

known. The implication of the dropout rate and the TIC failure is already discussed in the paper and it is not clear what additional query the writers have on that point.

The figures published show that the combined inhaler although had a greater mean compliance this did not reach significance. AG Benbow and IP Naya have divided the sample into good compliance ( $> 80\%$ ) and poor compliance ( $< 50\%$ ) and in doing so omit the 26 patients lying between these levels of compliance (Fig 1.) which tends to emphasise the difference in inhalers. Nevertheless, the difference between the inhalers is not statistically significant.

The authors do not propose that combined inhalers should be ignored, but do wish to point out that the assumption that these preparations improve compliance is not yet proven.

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