

## Salmeterol/Fluticasone Propionate Combination

A Viewpoint by Romain A. Pauwels

Department of Respiratory Diseases,  
University Hospital, Ghent, Belgium

Although regular treatment with inhaled corticosteroids remains the single most effective treatment of persistent asthma, it has become clear that the dose-response curve to these drugs is rather flat. In moderate to severe asthma, the addition of other therapies such as long-acting inhaled  $\beta_2$ -agonists, theophylline<sup>[1]</sup> or an antileukotriene to a low to moderate dose of an inhaled corticosteroid is more efficacious than doubling the dose of the latter for most parameters of asthma control. The only, yet important, exception is severe asthma exacerbations.<sup>[2]</sup> Increasing the dose of inhaled glucocorticoids is more effective in reducing the number of severe asthma exacerbations than adding a long-acting inhaled  $\beta$ -agonist. Nevertheless, comparative studies show that the addition of salmeterol to inhaled glucocorticoid therapy is more efficacious and better tolerated than adding theophylline<sup>[3]</sup> and more efficacious than adding zafirlukast.<sup>[4]</sup>

The combination of fluticasone propionate and salmeterol improves the control of asthma in the majority of patients with moderate to severe persistent asthma. The convenience of having both drugs in 1 inhaler should certainly enhance compliance. However, an educational effort will undoubtedly be needed both for the prescribing physician and for the patient to stimulate the identification of the minimal dose of fluticasone propionate needed in

the fixed combination to maintain optimal control of asthma in the individual patient. This strategy should reduce the risk of systemic adverse effects from higher doses of fluticasone propionate in patients who do not need such high doses.

The beneficial effect of the addition of salmeterol to fluticasone propionate appears to be smaller in children.<sup>[5]</sup> This observation supports the hypothesis that the superior efficacy of the combination in comparison with the inhaled corticosteroid alone is due to the effect of the long-acting inhaled  $\beta_2$ -agonist on airway abnormalities other than persistent airway inflammation. It would be interesting to relate the duration of asthma to the relative beneficial effect of combination therapy versus a higher dose of inhaled glucocorticoids. A positive relationship would be a strong argument for the pathophysiological relevance of airway remodelling. ▲

## References

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