

# Clinical Pharmacology

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## Breathing Easy with Fenoterol + Ipratropium Bromide

The combination is more effective than salbutamol in elderly patients with CORD . . .

Ten elderly outpatients with chronic obstructive respiratory disease and demonstrated airway reversibility randomly received fenoterol 200 $\mu$ g + ipratropium bromide 80 $\mu$ g, salbutamol 200 $\mu$ g or placebo as 2 puffs via a metered-dose inhaler on 3 occasions separated by one week. A double-dummy technique was used to maintain blindness.

FEV<sub>1</sub> was significantly improved by the combination treatment compared with salbutamol alone between 3 and 4 hours, while FVC and PEFr were significantly improved between 2.5 and 5 hours and between 2 and 4 hours, respectively. FEV<sub>1</sub> was significantly greater after active treatment than after placebo for the whole period of the study following combination treatment vs 15-170 mins following salbutamol. Individual mean percentage increases in FEV<sub>1</sub> over the study duration were not significantly different between treatments in 7 patients and significantly greater following combination therapy in 3.

In this heterogeneous group, '*. . . a fixed dose combination is more effective than salbutamol in reversing airflow obstruction following a single dose, due primarily to a longer duration of action*'.

Crane J, Gamble S, Purdie G. New Zealand Medical Journal 100: 385-387. 24 June 1987

. . . and both treatments improve lung function in asthmatic patients

15 asthmatic patients aged 18-50 years were randomised to receive, by aerosol inhalation, ipratropium bromide 0.04mg + fenoterol 0.1mg or salbutamol 0.2mg in a double-blind crossover trial. If no adverse effects occurred, this was repeated at 60 and 90 min.

Both salbutamol alone and fenoterol + ipratropium bromide increased vital capacity, forced vital capacity, FEV<sub>1</sub>, forced expiratory flow, maximal mid-expiratory forced flow and maximal ventilatory volume, with no significant differences between the two treatments. Adverse effects of tremor, anxiety and mouth dryness were infrequent and mild.

The low concentration of fenoterol in combination with ipratropium bromide may be of particular value in prophylactic and maintenance therapy of asthma.

Mecabell VB, Pellegrini HMM, Garcia Velloso MA, Picoroso G, Isola LM. Prênsa Médica Argentina 73: 674-677. Oct 1986