Enhanced fenoterol/ipratropium bromide delivery in COPD

The Respimat Soft Mist inhaler (SMI) allows a 50% reduction in the nominal daily dose of fenoterol/ipratropium bromide [Berodual] in chronic obstructive pulmonary disease (COPD) and is similar to the corresponding chlorofluorocarbon metered-dose inhaler (CFC-MDI) in efficacy and safety, according to a multinational group of researchers.*

In their multicentre study, 892 patients with mainly moderate-severe COPD (aged ≥ 40 years) were randomised to receive one actuation using Respimat SMI of fenoterol/ipratropium bromide 25/10µg, fenoterol/ipratropium bromide 50/20µg or placebo, or two actuations using CFC-MDI of fenoterol/ipratropium bromide 50/20µg or placebo, four times daily for 12 weeks.

With regard to the primary endpoint of the change from predose in FEV_1 in the first hour after dosing, a 50/20µg dose of fenoterol/ipratropium bromide via Respimat SMI was found to be noninferior to 100/40µg via CFC-MDI at day 85 of the study. All active treatment groups showed better responses than the placebo groups. The treatment effects on day 1 of the study were similar to those for day 85.

The inhalers were found to have comparable safety profiles; similar proportions of patients (10–15.8%) in all treatment groups stopped randomised therapy due to adverse events. Patients receiving fenoterol/ipratropium bromide via Respimat SMI used slightly less rescue medication than the other groups. The researchers point out that "*each individual dose was delivered from Respimat® SMI in just one actuation, rather than the two actuations needed with the CFC-MDI*".

* One of the researchers was affiliated with Aeirtec, and two with Boehringer Ingelheim, which sponsored the study.

Kilfeather SA, et al. Improved delivery of ipratropium bromide/fenoterol from Respimat (Rm) Soft Mist (TM) Inhaler in patients with COPD. Respiratory Medicine 98: 387-397, No. 5, May 2004

800978168