Ensifentrine Improves Symptoms, Dyspnea, and Quality of Life in Stable COPD Patients Without Exacerbations: ENHANCE Trials

Glenview, IL – A post hoc analysis from the phase III ENHANCE trials found that ensifentrine**,** a first-in-class dual inhibitor of phosphodiesterase 3 and 4, significantly improved symptoms, dyspnea, and quality of life in patients with COPD who did not experience exacerbations during the studies.

This 24-week analysis included 1,384 patients (ensifentrine, N = 891; placebo, N = 493) who did not experience exacerbations during the study period. Demographics and baseline characteristics were similar between groups, including age, gender, Baseline Dyspnea Index (BDI) Score, Evaluating Respiratory Symptoms™ (E-RS) Total Score, and St. George's Respiratory Questionnaire (SGRQ) Total Score. Ensifentrine treatment resulted in significant improvements in Transition Dyspnea Index (TDI) Score versus placebo at weeks 6, 12, and 24 ($p < 0.05$). A significantly greater proportion of patients treated with ensifentrine achieved a clinically meaningful improvement in TDI Score (minimal clinically important difference [MCID] ≥ 1 unit) at all time points ($p < 0.05$). Ensifentrine treatment also resulted in significantly greater E-RS Total Scores at weeks 6, 12, and 24 versus placebo ($p < 0.05$). A significantly greater proportion of ensifentrine-treated patients were responders in E-RS Total Score versus placebo (MCID ≥-2) at weeks 6 and 12 ($p < 0.05$), and a numerically greater proportion of ensifentrine-treated patients were responders in E-RS Total Score at week 24.

Ensifentrine improved SGRQ total score versus placebo at all time points, with significant improvements at weeks 6 and 12 ($p < 0.05$). Ensifentrine demonstrated a significantly greater proportion of SGRQ responders (MCID ≥ -4) versus placebo at weeks 6 and 12 ($p <0 .05$) and a numerically greater proportion of SGRQ responders versus placebo at week 24. Baseline demographics and disease characteristics were similar between treatment groups.

"Even among COPD patients who did not exacerbate, ensifentrine demonstrated meaningful improvements in daily symptoms, dyspnea, and quality of life,**"** said Nicola A. Hanania, MD**,** FCCP, lead researcher and CHEST 2025 presenter**. "**These results reinforce the potential of ensifentrine to address the unmet symptom burden faced by stable COPD patients beyond traditional bronchodilator therapy."

Ensifentrine provided consistent, clinically significant benefits across multiple patient-reported outcomes in nonexacerbating COPD patients. Ensifentrine represents a new therapeutic option for patients living with COPD to complement existing maintenance treatments.

Further results will be presented at the CHEST Annual Meeting 2025 as part of the *Current Updates in COPD rapid fire original investigation presentations titled, "Ensifentrine Improved Symptoms, Dyspnea, and Quality of Life in Patients With COPD Who Did Not Exacerbate During the ENHANCE Trials."* The study abstract can be viewed on the *CHEST*® journal website.