

## Abstract 16738: International Variation in Management and Clinical Outcome of Patients With Type 2 Diabetes and Heart Failure: Insights From TECOS

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### Abstract

**Introduction:** We evaluated international variations in management and clinical outcome for patients with type 2 diabetes and heart failure (HF) by region in the Trial Evaluating Cardiovascular Outcomes with Sitagliptin (TECOS).

**Methods:** Among 14,671 TECOS patients, those with a baseline history of HF for whom documented baseline ejection fraction (EF) was available (N=1591) were categorized by geographic region. We examined regional variation in baseline characteristics and clinical outcome (death/HF hospitalization) using adjusted Cox models with North America as the reference cohort.

**Results:** Of 1591 (10.8%) patients with HF and documented EF, the majority originated from Eastern Europe (Eastern Europe [N=847; 21% of enrolled in region], North America [N=237; 9% of enrolled in region], Western Europe [N=191; 9% of enrolled in region], Asia Pacific [N=162; 4% of enrolled in region], and Latin America [N=154; 10% of enrolled in region]). Most patients had EF $\geq$ 40% (N=1267, 79.6%). Patients with EF<40% overall had highly prevalent use of beta-blocker (82%) and ACEI/ARB (87%), similar across geographic regions; mineralocorticoid antagonist use ranged from 19% to 37%. A joint test of whether any regions differed from North America in rates of death/HF hospitalization was statistically significant (p=0.004). However, during a median follow-up of 3.0 years, only Eastern European patients had significantly lower event rates (adjusted hazard ratio: 0.47, 95% CI: 0.31-0.72; Figure), largely driven by this region having the lowest HF hospitalization event rate among all regions. No significant difference was found in all-cause death rates.

**Conclusions:** In patients with type 2 diabetes and HF enrolled in an international clinical trial, variation exists with respect to the prevalence of HF and in the adjusted composite outcome of death/HF hospitalization across regions. These data may inform the design of future global trials that enroll patients with diabetes and HF.

Figure. Adjusted Kaplan-Meier curve of all-cause death or heart failure hospitalization by geographic region (n = 1591)

