Abstract 086: Secondary Prevention of Cardiovascular Disease in Patients With Type 2 Diabetes: International Insights From the TECOS Trial

Neha J Pagidipati, Ann Marie Navar, Karen S Pieper, Jennifer B Green, M. A Bethel, Paul W Armstrong, Robert G Josse, Darren K McGuire, Yuliya Lokhnygina, Jan H Cornel, Sigrun Halvorsen, Timo E Strandberg, Tuncay Delibasi, Runy R Holman, Eric D Peterson, and and on behalf of the TECOS Study Group1DCRI, Durham, NC2DTU, Oxford, United Kingdom3Canadian ViGOUR Cntr, Edmonton, Canada4St Michael's Hosp, Toronto, Canada5Univ of Texas Southwestern Med Cntr, Dallas, TX6Noordwest Ziekenhuisgroep, Alkmaar, Netherlands7Univ of Oslo, Oslo, Norway8Univ of Oulu, Oulu, Finland9Hacettepe Univ, Ankara, Turkey

Originally published 31 Mar 2017 | Circulation: Cardiovascular Quality and Outcomes 2017:10:A086

Abstract

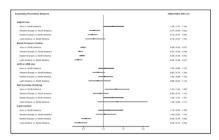
Background: Intensive risk factor modification significantly improves outcomes for patients with diabetes and cardiovascular disease (CVD). However, the degree to which secondary prevention treatment targets are achieved in international clinical practice is unknown.

Methods: Attainment of 5 secondary prevention targets—aspirin use, lipid control (low-density lipoprotein cholesterol (LDL-C) <70 mg/dL or statin therapy), blood pressure control (<140 mmHg systolic, <90 mmHg diastolic), angiotensin-converting enzyme inhibitor or angiotensin receptor blocker use, and non-smoking status—was evaluated among 14,671 patients from 38 countries with diabetes and known CVD at entry into TECOS. Logistic regression was used to evaluate the association between individual and regional factors and target achievement.

Results: Overall, 29.9% of patients with diabetes and CVD had all 5 secondary prevention measures at target. North America had the highest proportion (41.2%), whereas Western Europe, Eastern Europe, and Latin America had proportions of approximately 25%. The likelihood of having individual prevention components at target also varied by region: compared with North America, individuals in all other regions were less likely to have blood pressure at goal, and individuals in Eastern Europe and Latin America were less likely to have LDL-C at target or to be on statin therapy (see Figure). Overall, blood pressure control (57.9%) had the lowest overall attainment while non-smoking status had the highest (89%).

Conclusions: On a global scale, significant opportunities exist to improve the quality of cardiovascular secondary prevention care among patients with diabetes and CVD, which in turn could lead to reduced risk of downstream cardiovascular events.

Figure: Forest Plot with Unadjusted Associations between Region and each Secondary Prevention Component at Target



Individuals with complete data for the variable of interest were included in the analyses for each secondary prevention component. ACE indicates angiotensin-converting enzyme inhibitor; and ARB, angiotensin receptor blocker.