**EFFICACY AND SAFETY OF SAXAGLIPTIN IN PATIENTS WITH TYPE 2 DIABETES AND HISTORY OF CARDIOVASCULAR DISEASE**

**W. Cook1**, B. Bryzinski2, J. Slater3, M. Donovan4, E. Allen3

1Medical Affairs, AstraZeneca, Wilmington, DE, 2Research & Development, AstraZeneca, Wilmington, DE, 3Medical Affairs, Bristol-Myers Squibb, Princeton, NJ, 4Biostatistics, Bristol-Myers Squibb, Princeton, NJ, USA

Background and objective: To determine the efficacy/safety of saxagliptin (SAXA) in patients with type 2 diabetes (T2D) and a history of cardiovascular (CV) disease, we conducted a pooled subgroup analysis of 5 phase 3 placebo–controlled 24-week studies (2 studies SAXA monotherapy in drug-naive patients; 1 study each as SAXA add-on to metformin, glyburide, or a thiazolidinedione).

Methods: Analyses included pooled efficacy (glycated hemoglobin [HbA1c], fasting plasma glucose [FPG], 120-min postprandial glucose [PPG] using analysis of covariance) and safety data (adverse events [AEs]) for SAXA 5 mg and placebo in patients with and without a history of CV disease (previous event or diagnosis).

Results: Improvements in glycemic control were greater with SAXA vs placebo irrespective of CV disease history, with no clinically relevant treatment-by-subgroup interactions (Table). In both subgroups, AE rates were similar with SAXA vs placebo (Table). Incidences of all reported hypoglycemia with SAXA vs placebo were 7.2% vs 6.2% and 7.8% vs 6.7% and symptomatic confirmed hypoglycemia

(glucose ≤50 mg/dL) were 0 vs 2.1% and 0.5% vs 0.1% in patients with and without CV disease history, respectively.

Conclusion: SAXA 5 mg was similarly effective in patients with T2D regardless of CV disease history with an AE rate similar to placebo.

Glycemic efficacy and AEs at 24 weeks with SAXA 5 mg in patients with and without CV disease history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | CV Disease History | | No CV Disease History | |
|  | SAXA  5 mg | Mean Difference vs Placebo (95% CI)\* | SAXA  5 mg | Mean Difference vs Placebo (95% CI)\* |
| HbA1c,% † | n=110 | n=96 | n=746 | n=680 |
| Mean adjusted change from baseline (95% CI) | –0.70  (−0.88 to −0.52) | –0.64  (−0.90 to −0.38) | –0.70  (−0.77 to −0.63) | –0.68  (−0.78 to −0.58) |
| FPG, mg/dL‡ | n=110 | n=96 | n=756 | n=686 |
| Mean adjusted change from baseline (95% CI) | –18.2  (−25.3 to −11.1) | –15.8  (−26.2 to −5.3) | –13.0  (−15.8 to −10.3) | –14.4 (−18.3 to −10.4) |
| PPG, mg/dL§ | n=88 | n=64 | n=574 | n=520 |
| Mean adjusted change from baseline (95% CI) | –54.5  (−68.1 to −40.9) | –38.2  (−59.1 to −17.3) | –52.0 (−57.5 to −46.6) | –41.4  (−49.2 to −33.7) |
| HbA1c <7% | n=110 | n=96 | n=747 | n=680 |
| Achieved target, % | 43.6 | 21.8 (8.2 to 35.4) | 35.1 | 15.7 (10.9 to 20.4) |
|  | SAXA 5 mg n=111 | Placebo n=97 | SAXA 5 mg n=766 | Placebo n=699 |
| ≥1 AE, % | 70.3 | 72.2 | 72.3 | 70.2 |
| ≥1 Serious AE, % | 4.5 | 7.2 | 3.1 | 2.9 |
| D/C due to AEs, % | 2.7 | 2.1 | 3.4 | 1.7 |
| Deaths, n | 0 | 1 | 0 | 1 |
| \*n value in difference column reflects the number of patients in the placebo group. Drug-by-CV disease history interaction, †*P*=0.9453, ‡*P*=0.4137; §*P*=0.5164, indicating no difference in treatment effect based on CV disease history. | | | | |

**Supported by:** Bristol-Myers Squibb and AstraZeneca.