Among Commercially Insured Members with Diabetes Mellitus (DM), Choice and Persistence of Drug Therapy: Dipeptidyl Peptidase-4 Inhibitors (DPP-4i) Versus Glucagon-like Peptide-1 Agonists (GLP-1) or Sodium-Glucose Cotransporter-2 Inhibitors (SGLT-2i)

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Objective

To describe members with DM initiating DPP-4i, GLP-1 or SGLT-2i therapy who had claims evidence of ASCVD in the preceding 24 months. Members were considered to have ASCVD if they had a claim with diagnostic code of ICD-9 or ICD-10 for coronary artery disease (CAD), myocardial infarction (MI), or other cardiovascular events.

Methods

- **Background**: Evidence that control of cardiovascular risks such as hypertension is of key importance for improving long-term outcome improvement requires maintaining drug therapy persistence.

- **Results**: Of a white commercially insured members, 132,344, 79,202 (59.9%) had a claim for an index drug in 2016, 2017, or 2018. The percentage of DM members with ASCVD starting DPP-4i, GLP-1 or SGLT-2i was defined as those with ≥ 2 medical claims for ASCVD as a new indication for the SGLT-2i or GLP-1 or DPP-4i at the time of DM drug therapy intensification.

- **Conclusions**: In this commercially insured population, persistence of therapy with all three of these diabetes mellitus (DM) drug classes was substantial, with about half of members discontinuing therapy or being censored in the future.

- **Limitations**: This study groups drugs by class (DPP-4i, GLP-1 and SGLT-2) and was not designed to make comparisons between individual drugs within or between these classes. The results are not adjusted for any differences between the members in the companion groups that might have confounded the effect of the drug class choice.


- **Figure**: Kaplan-Meier Derived Persistence of Drug Therapy: DPP-4i versus GLP-1 and SGLT-2i among 44,021 Commercial Members with First Antihyperglycemic Claim. Other than for GLP-1, the percentage of members achieving persistence was 95 of 313 (30.4%) January 2016 through March 2018. Members were defined as achieving persistence if they had an index drug-1 or index drug-2 code for the drug.

- **Table**: Members with a First Claim for a DPP-4i, GLP-1 or SGLT-2i who had Claims Evidence of ASCVD in the Preceding 24 Months. Percentages Starting Therapy by Class and Three-Month Incurred Intervals 2016 2017 2018 Total

- **Figure**: Kaplan-Meier Derived Persistence of Drug Therapy: DPP-4i versus GLP-1 and SGLT-2i among 44,021 Commercial Members with First Antihyperglycemic Claim. Other than for GLP-1, the percentage of members achieving persistence was 95 of 313 (30.4%) January 2016 through March 2018. Members were defined as achieving persistence if they had an index drug-1 or index drug-2 code for the drug.