- This longitudinal retrospective study used data from two large US administrative claims databases (IMPACT® and Humana®) to examine real-world outcomes of switching basal insulin analogs among two cohorts of adult patients with type 2 diabetes mellitus (T2DM).
- Cohort 1 were previously on insulin glargine (GLA), and either continued GLA (GLA-C) or switched to insulin detemir (DET-S), while Cohort 2 were previously on DET, and either continued DET (DET-C) or switched to GLA (GLA-S).
- A total of 5,921 patients (mean age 60 years, female 50.0%, glycated hemoglobin [HbA_{1c}] 8.6%) were included in the analysis (Cohort 1: IMPACT®: n = 536 DET-S matched to n = 2,668 GLA-C; Humana®: n = 256 DET-S matched to n = 1,262 GLA-C; Cohort 2: n = 419 GLA-S matched to n = 780 DET-C), with similar baseline characteristics between treatment groups in each cohort.
- During 1-year follow-up, in Cohort 1, DET-S patients, when compared with GLA-C patients, had lower treatment persistence/adherence, with 33-40% restarting GLA; higher rapid-acting insulin use; worse HbA_{1c} outcomes; significantly higher diabetes drug costs; and similar hypoglycemia rates, health care utilization and total costs; whereas in Cohort 2, overall opposite outcomes were observed and only 19.8% GLA-S patients restarted DET.
- This study showed contrasting clinical and economic outcomes when patients with T2DM switched basal insulin analogs, with worse outcomes observed for patients switching from GLA to DET and improved outcomes when switching from DET to GLA.

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