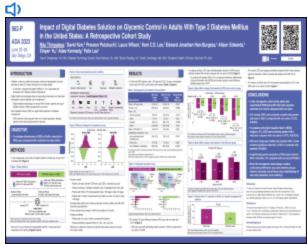


962-P — 2023 ADA

Impact of Digital Diabetes Solution on Glycemic Control in Adults with Type 2 Diabetes Mellitus in the United States—A Retrospective Cohort Study



New Technology - Glucose Monitoring and Sensing GPS01 | Saturday General Poster Session

Presented on Saturday, June 24, 2023 11:30 AM

Author(s): NITA THINGALAYA, DAVID KERR, PRAVEEN KUMAR POTUKUCHI, LAURA WILSON, KENI C. LEE, EDWARD JONATHAN K. HAN-BURGESS, ALISON EDWARDS, XINYAN YU, ADEE KENNEDY, FELIX LEE, *Bridgewater, NJ, Santa Barbara, CA, Collierville, TN, Kansas City, MO, Reading, United Kingdom, Cambridge, MA, Blue Bell, PA*

Background: Dario Diabetes Solution (DDS) is a digital health application (app) that combines a blood glucose (BG) monitoring system with a smartphone app, allowing tracking of BG levels in real time. This study evaluated effectiveness of DDS on HbA1c between DDS users and matched nonusers.

Methods: This retrospective cohort study included adults with type 2 diabetes mellitus (T2DM) with a baseline (BL) HbA1c ≥7% who used DDS (users) or received usual care (nonusers) between January 1, 2017, to October 31, 2021. BL period was 1 year before index date (first DDS registration [users] or first claim date in the quarter [nonusers]); follow-up period was 6 months. DDS user and nonuser cohorts were matched 1:3 using exact and propensity score matching. Primary endpoint was change in HbA1c from BL to 6 months, with subgroup analyses of patients (pts) with BL HbA1c >7.5%, >8%, >9%, and ≥1% drop from BL. Difference-in-difference results are reported using least squares (LS) means from linear models.

Results: The study included 568 DDS users and 1699 nonusers. For all 2267 pts, mean \pm SD age was 57.5 \pm 11.3 years and HbA1c was 9.14 \pm 1.83% at BL. At 6 months, LS mean difference between groups was -0.23% (mean HbA1c change vs BL: users, -1.02% [95% CI, -1.15, -0.89]; nonusers, -0.79% [-0.87, -0.71]; P=0.004). HbA1c drop \geq 1% from BL to 6 months was achieved by 47% of users vs 37% nonusers (difference: 10%; P<0.001). Subgroup analysis at all BL HbA1c showed users achieved more significant HbA1c reductions vs nonusers (P<0.05). For pts with BL HbA1c >9%, the healthcare effectiveness data and information set performance measure, mean difference between groups was -0.47% (users, -2.25% [-2.50, -1.99]; nonusers, -1.78% [-1.92, -1.63]; P=0.002).

Conclusions: Adults with uncontrolled T2DM using DDS had better outcomes at 6 months, with more significant HbA1c reductions than matched nonusers across various BL HbA1c levels, showing incremental improvements to usual care.

Disclosure: N.Thingalaya: None. F.Lee: Employee; ; Sanofi, Stock/Shareholder; ; Sanofi. D.Kerr: Consultant; ; Sanofi-Aventis U.S..

P.Potukuchi: None. L.Wilson: Employee; ; Sanofi. K.C.Lee: Employee; ; Sanofi. E.K.Han-burgess: Employee; ; Sanofi.

A.Edwards: Employee; ; Symphony Health, an ICON plc company, Other Relationship; ; Sanofi. X.Yu: None. A.Kennedy: None.

© 2024 Digital Acumen, Inc. — Content © 2024 The American Diabetes Association, All rights reserved.