improvement (QI) learning collaborative (LC) program to interdisciplinary primary healthcare teams to support team collaboration and improve diabetes management, colorectal cancer screening and access to care. The QI program consisted of 3 learning sessions and supportive program activities utilizing the CDPM framework and IHI-BTS methodologies. A pre-post cluster matched control design with chart audit was used to determine the effectiveness of this program on diabetes management. Sixty-eight (34 physicians per group) randomly selected QIIP physicians and matched controls consented. Charts of patients with type 2 diabetes were randomly selected. Primary outcomes were annual foot exam and mean A1C of patients with A1C $\geq$7.3%. A generalized linear model was used to compare change in diabetes outcome measures from baseline between QIIP physicians and the control group accounting for clustering and baseline measures. The QIIP group significantly improved process outcomes compared to the control for eye (p=0.03) and neuropathy exams (p=0.01). Mean A1C was significantly lower in the QIIP group during the program (p=0.01); however, these improvements were not sustained 1-year afterwards (p=0.10). More patients in the QIIP group achieved target LDL (p=0.03). No difference between groups was observed for foot exam (p=0.15), mean systolic BP (p=0.72), mean diastolic BP (p=0.92), LDL (p=0.32), percentage of patients achieving target A1C (p=0.75) and percent of patients achieving target BP (p=0.50). In conclusion, the QI program had modest improvements on diabetes process and clinical outcomes.

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Canagliflozin Demonstrates Durable Glycemic Improvements Over 104 Weeks Compared with Glimepiride in Subjects with Type 2 Diabetes Mellitus on Metformin

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Purpose: To assess efficacy and safety of canagliflozin (CANA) compared with glimepiride (GLIM) over 104 weeks.
Methods: Double-blind, phase 3 study randomized 1450 subjects with T2DM on MET to receive CANA 100 or 300 mg or GLIM (up to 6 or 8 mg/day) during a 52-week core period, followed by a 52-week extension (n=1050).
Results: At week 104, both CANA doses reduced HbA1c, FPG, weight and systolic BP compared with GLIM. Both CANA doses were associated with increases in HDL-C and LDL-C that were stable from week 26 to week 104. Fewer subjects had hypoglycemic events with CANA 100 and 300 mg than with GLIM (7%, 8%, 41%, respectively).

Overall incidences of adverse events (AEs) were 73%, 78% and 78% with CANA 100 mg, 300 mg and GLIM; serious AEs were 10%, 10% and 14%; discontinuation rates due to AEs were low across groups. Genital mycotic infection rates were higher in the pooled CANA group than the GLIM group (women, 15% vs. 3%; men, 9% vs. 2%). Higher rates of osmotic diuresis-related AEs (6%, 7%, 2%) and urinary tract infections (11%, 9%, 7%) were seen with CANA 100 mg and 300 mg compared with GLIM. Rates of these AEs were generally lower in the 52-week extension period versus the 52-week core period. A larger decrease in eGFR was seen with GLIM (6%) than with CANA ($\sim$1% to 3%) at week 104.
Summary: In summary, CANA showed durable glycemic improvements compared with GLIM and was generally well tolerated over 104 weeks.

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Efficacy and Safety of Canagliflozin (CANA) in Subjects with Type 2 Diabetes Mellitus (T2DM) and Chronic Kidney Disease (CKD) Over 52 Weeks

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Purpose: To evaluate the efficacy and safety of canagliflozin (CANA) compared with placebo (PBO) in subjects with type 2 diabetes mellitus (T2DM) and stage 3 CKD (eGFR $\geq$30 and $<$50 mL/min/1.73 m^2) over 52 weeks.
Methods: This randomized, double-blind study enroled subjects with T2DM and stage 3 CKD who received CANA 100 or 300 mg or placebo [PBO] added to current therapy (94.8% on insulin or SU) during a 26-week core period followed by a 26-week extension (n=207).
Results: Subjects (n=269) mean baseline characteristics: age: 68.5 years; A1C: 8.0%; FPG: 9.1 mmol/L; BMI: 33.0 kg/m^2; eGFR: 39.4 mL/min/1.73 m^2; median albumin/creatinine ratio [ACR]: 30.0 μg/mg. Over 52 weeks, CANA 100 and 300 mg reduced A1C (0.27,0.41%), FPG (0.65,0.81 mmol/L), body weight (1.5, 1.1 Kg), and systolic BP (6, 7 mm Hg), with small increases in HDL-C (1.2, 2.7%) and small decreases in LDL-C (2.9, 6.8%) relative to PBO.

AE-related discontinuation rates were low across groups. Proportion of subjects with hypoglycemia (64%, 59%, 46%) and osmotic diuresis-related AEs were higher with CANA 100 and 300 mg than PBO; rates of UTIs and volume-related AEs were higher with CANA 300 mg than PBO. Increases in BUN (12%, 16%, 5%), decreases in eGFR (−4%, −8%, −3%) and median ACR (−16%, −28%, +20%) were seen with CANA 100 and 300 mg relative to PBO.
Summary: CANA improved glycemic control and was generally well tolerated in subjects with T2DM and stage 3 CKD over 52 weeks, similar to findings at week 26.

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An Individualized Approach to Treat Type 2 Diabetes Based on Differential Contribution to Hyperglycemia of Basal and Postprandial Blood Glucose, A1c Level and Previous Anti-Diabetic Therapy

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Background: Treatment of type 2 diabetes (T2DM) patients with insulin glargine (iGla) was reported to increase postprandial glucose (PPG) contribution to hyperglycemia. Better understanding of the link between PPG contribution to hyperglycemia, previous exposure to insulin and A1c level could lead to a more aggressive and efficient personalized treatment of diabetes.
Methods: T2DM patients were selected from INSIGHT and START studies. Four hundred and six insulin-naïve (IN) patients received iGla while maintaining their oral anti-diabetic drugs and 395 basal insulin-treated (IT) patients were either maintained or switched to iGla. PPG was measured using 7-point glucose profiles prior to and 12 weeks after initiation of iGla according to the Canadian algorithm. Percentages of PPG contribution to hyperglycemia were evaluated, and patients were classified according to their A1c level.
Results: At baseline, IN patients had lower contribution of PPG compared to IT patients. After 12 weeks of titrated iGla, IN patients presented a similar PPG contribution to IT patients. Independently