Supporting Teamwork that Empowers Patients (STEPS)

Pharmacist Impact on Utilization Rates of SGLT2 inhibitors and GLP-1 receptor agonists in Patients with Type 2 Diabetes Mellitus in Ambulatory Care Setting

Authors: Cody Chan, PharmD, BCPS, MBA, CDCES and Amy Wainright, PharmD, BCACP, BCGP

THE UNIVERSITY OF CHICAGO — UChicago Medicine — Center for Healthcare Delivery Science and Innovation

American Diabetes Association

Background

STEPS is a multidisciplinary team consisting of physicians, advanced practice nurses (APN), nurses, certified diabetes care and education specialists (CDCES), a pharmacist and a social worker within an endocrinology practice challenged with improving access to care and to reducing HbA1C thereby reducing comorbidities and risk of diabetes complications in youth and young adults with Type 2 diabetes (T2DM).

The use of SGLT2 inhibitors and/or GLP-1 RAs have demonstrated statistically significant reductions in cardiovascular events in patients with type 2 diabetes with established or at high risk of atherosclerotic cardiovascular disease and significant reductions in A1C
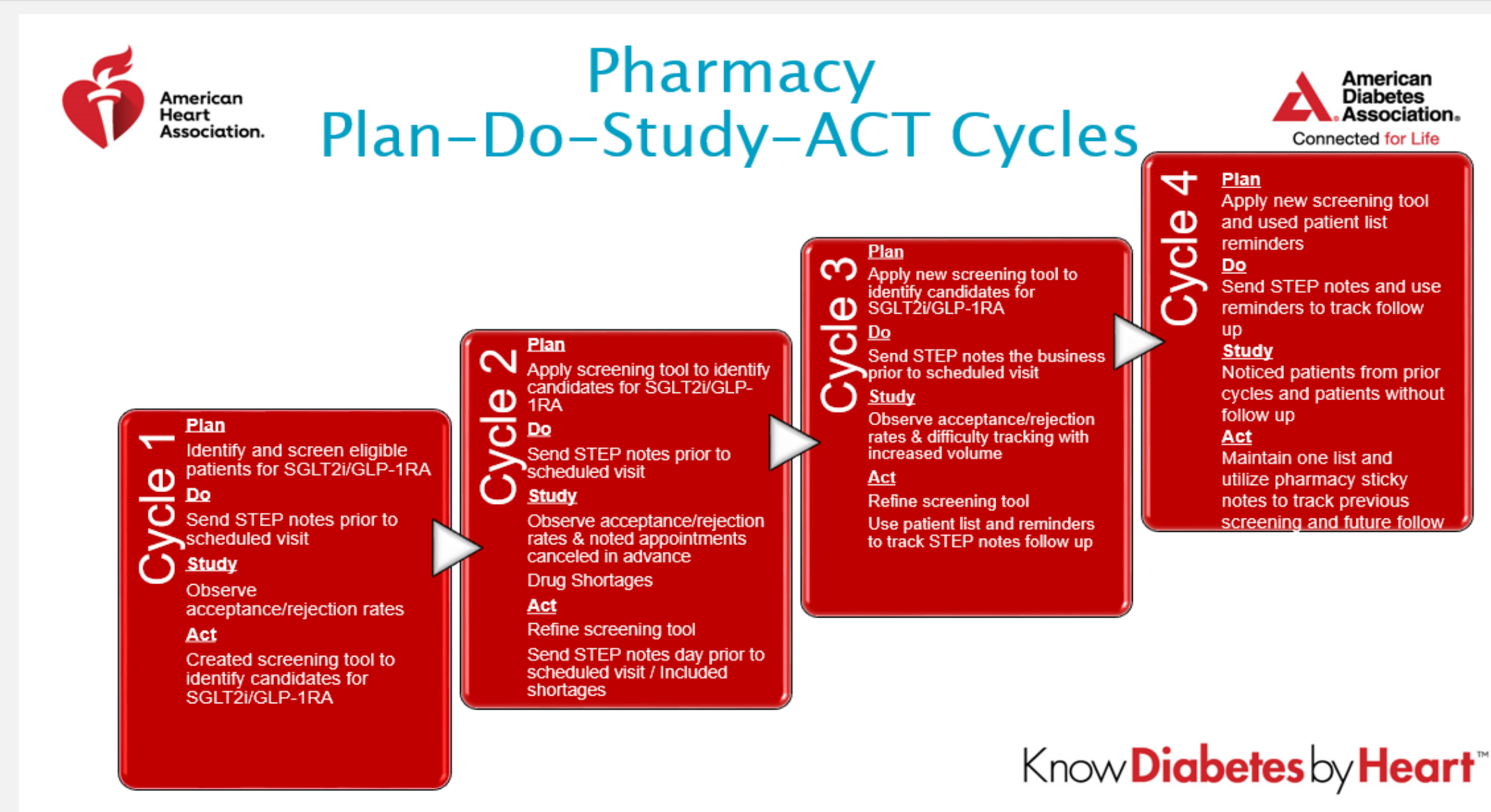
Objectives

Assess the impact of pharmacy-driven prospective chart review on patients with T2DM between ages of 10 and 44 years and HbA1c >7% who would benefit from starting an SGLT2 inhibitor and/or GLP-1 receptor agonist.
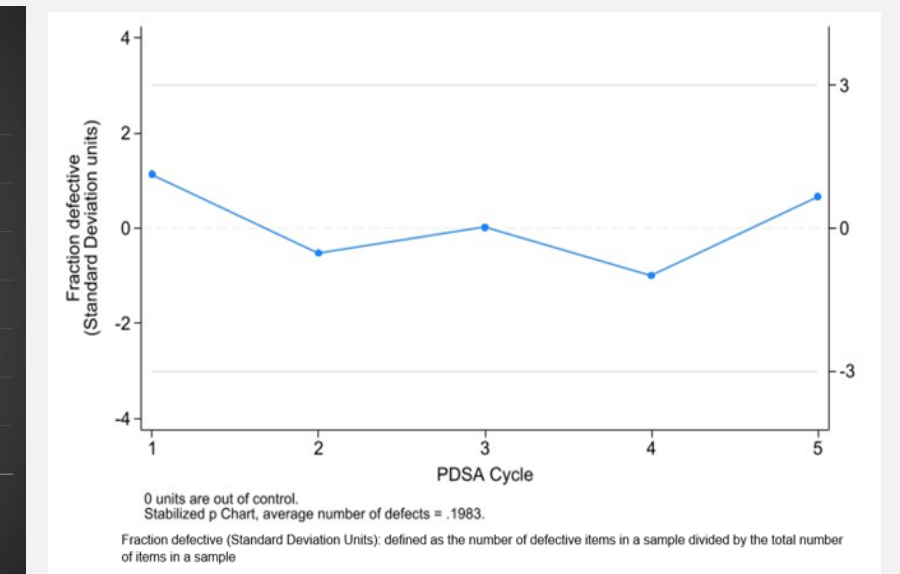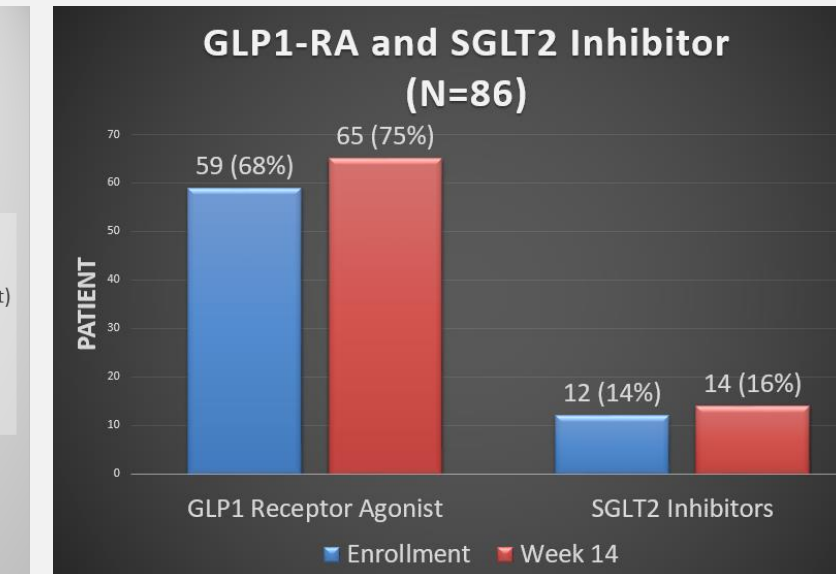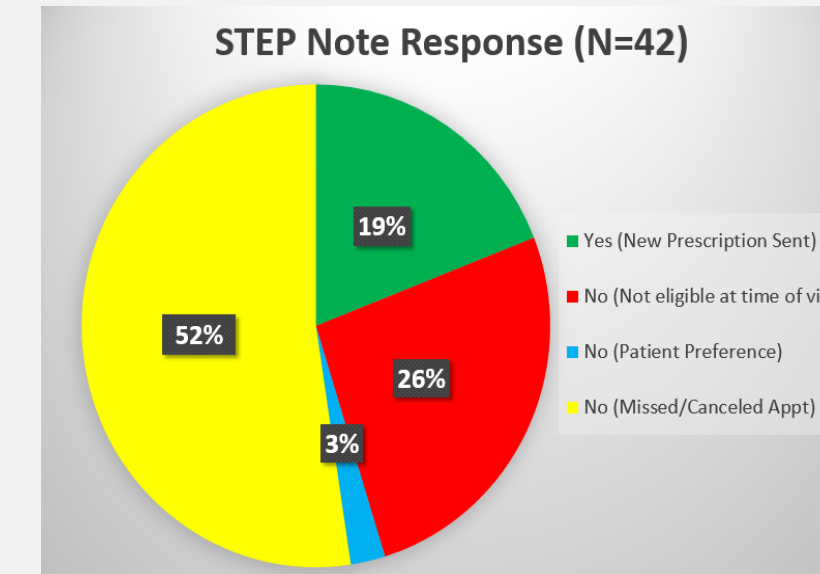
Statement aim is to increase the percentage of adolescents and young adults with type 2 diabetes achieving HbA1c < 7% by June 2023 by 25%.

Methods

STEP 1 • Identify patients with type 2 diabetes between the ages of 10 – 44 years who have upcoming scheduled clinic appointments within 2 week intervals

STEP 2 • Pharmacists will screen and assess patients for SGLT2 and/or GLP-1 RA utilization and eligibility

STEP 3 • Pharmacists will document and route chart note to the patient's provider prior to their scheduled clinic appointments with patient's insurance coverage information of SGLT2 inhibitors and/or GLP-1 RAs

STEP 4 • Endocrinologist to review and accept or reject recommendations.

Pharmacy Plan-Do-Study-ACT Cycles

American Heart Association. — American Diabetes Association. Connected for Life

Cycle 1
Plan: Identify and screen eligible patients for SGLT2i/GLP-1RA
Do: Send STEP notes prior to scheduled visit
Study: Observe acceptance/rejection rates
Act: Created screening tool to identify candidates for SGLT2i/GLP-1RA

Cycle 2
Plan: Apply screening tool to identify candidates for SGLT2/GLP-1RA
Do: Send STEP notes prior to scheduled visit
Study: Observe acceptance/rejection rates & noted appointments canceled in advance Drug Shortages
Act: Refine screening tool Send STEP notes day prior to scheduled visit / Included shortages

Cycle 3
Plan: Apply new screening tool to identify candidates for SGLT2i/GLP-1RA
Do: Send STEP notes the business prior to scheduled visit
Study: Observe acceptance/rejection rates & difficulty tracking with increased volume
Act: Refine screening tool Use patient list and reminders to track STEP notes follow up

Cycle 4
Plan: Apply new screening tool and used patient list reminders
Do: Send STEP notes and use reminders to track follow up
Study: Noticed patients from prior cycles and patients without follow up
Act: Maintain one list and utilize pharmacy sticky notes to track previous screening and future follow

Know Diabetes by Heart™

Results

STEP Note Response (N=42)
- 19% Yes (New Prescription Sent)
- 26% No (Not eligible at time of visit)
- 3% No (Patient Preference)
- 52% No (Missed/Canceled Appt)

GLP1-RA and SGLT2 Inhibitor (N=86)
- GLP1 Receptor Agonist: 59 (68%) Enrollment, 65 (75%) Week 14
- SGLT2 Inhibitors: 12 (14%) Enrollment, 14 (16%) Week 14

PDSA Cycle control chart

- GLP-1 receptor agonist and SGLT2 inhibitor usage increased by 7% and 2%, respectively.
- Of the 86 patients, 42 STEP chart notes were sent to patient's physicians. Of the notes sent, response rates was at 48%.
- Of the 52% of notes without a response, all were associated with missed or canceled appointments
- A P-chart was used to evaluate the impact of various interventions over time with each time point correlating with a PDSA cycle. No interventions at any time points cross the control limits suggesting the interventions did not significantly impact the acceptance rates of STEP note recommendations.
- Wilcoxon signed-rank test analysis showed a statistically significant decrease in HbA1c by 1.75 at an average of 5.5 months for patients who were enrolled into the STEPs program *independent of pharmacy intervention* (P < 0.0042).

Conclusions

Patients enrolled into the STEPs program had a statistically significant reduction in HbA1c at 5.5 months demonstrating the positive impact of having a multidisciplinary team for patients with diabetes. Given the small sample size along with low response rates, statistical analyses was not performed to determine if pharmacy intervention impacted HbA1c.

Pharmacists are in an ideal position to optimize a patient's diabetes medication regimen by performing medication chart reviews, identifying patients with type 2 diabetes who would benefit from an SGLT2 inhibitor and/or GLP-1 receptor agonist, providing medication coverage information and recommendations to physicians prior to patient's clinic visits.

Several physicians provided positive feedback upon receipt of chart note recommendations and offered suggestions on future improvements. Some physicians disclosed they would keep the chart note for future references with the intent of circling back with patients to discuss therapy initiation.

Future direction could be focused on follow up for GLP-1 titrations in between clinic visits.

Limitations

- GLP-1 receptor agonist in limited supply at the time affecting therapy initiation
- The high rates of missed/canceled appointments resulted in fewer response rates
- Limited pharmacy resources to support continued patient screenings resulting in smaller sample size.

Acknowledgements