A Health-System Specialty Pharmacy Approach to Optimize Medication Regimens Among Patients Diagnosed with Type 2 Diabetes Mellitus

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BACKGROUND

- Patients with uncontrolled type 2 diabetes mellitus (T2DM) are at greater risk for complications such as renal impairment, cardiovascular disease, and death.[1]
- Given their beneficial effects on cardiovascular outcomes, weight, and hypoglycemic risk, sodium-glucose contransporter-2 (SGLT2) inhibitors, glucagon-like peptide-1 receptor agonists (GLP-1 RAs), and a dual glucose-dependent insulinotropic peptide/GLP-1 (GIP/GLP-1) RA have become mainstays in the treatment of T2DM.[2]
- SGLT2 inhibitors, GLP-1 RAs, and GIP/GLP-1 RAs are often not prescribed nor accessible to patients who could benefit from them.[3,4] Thus, opportunities exist to optimize their clinical use.
- The heath-system specialty pharmacy (HSSP) model embeds pharmacists within outpatient clinics where they can collaborate with prescribers to optimize therapeutic regimens.

OBJECTIVE

To describe the findings of an HSSP initiative aimed at optimizing medication regimens for patients with T2DM in alignment with clinical guideline recommendations.

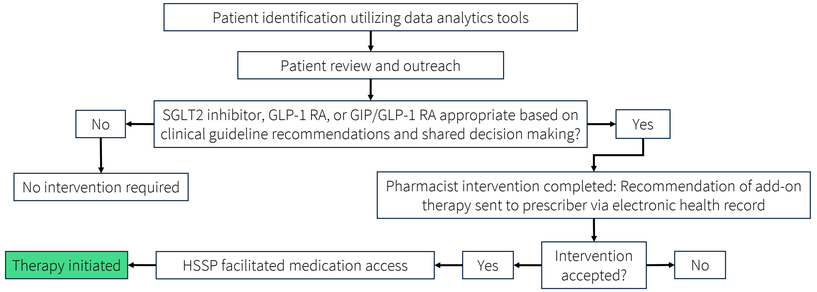
METHODS

Study Design

From December 2023 to February 2024, an HSSP quality improvement initiative was conducted at seven HSSPs, and associated outpatient clinics (endocrinology, family practice, or primary care), in which pharmacists recommended add-on therapy to prescribers for patients with T2DM based on clinical guideline recommendations.

PATIENT INCLUSION	PATIENT EXCLUSION
• Diagnosis of T2DM per applicable ICD-10-CM codes • Prescribed any insulin therapy • Not prescribed a SGLT2 inhibitor, GLP-1 RA, or GIP/GLP-1 RA at baseline	• <18 years of age • Unable to contact • Not clinically serviced by HSSP

Initiative Framework



Endpoints

1. Number of patients eligible for pharmacist review/outreach
2. Number of therapy recommendation interventions made to prescribers
3. Number and breakdown of pharmacist intervention outcomes
4. Number and breakdown of new therapies added

RESULTS

Figure 1: Patient Identification and Outreach

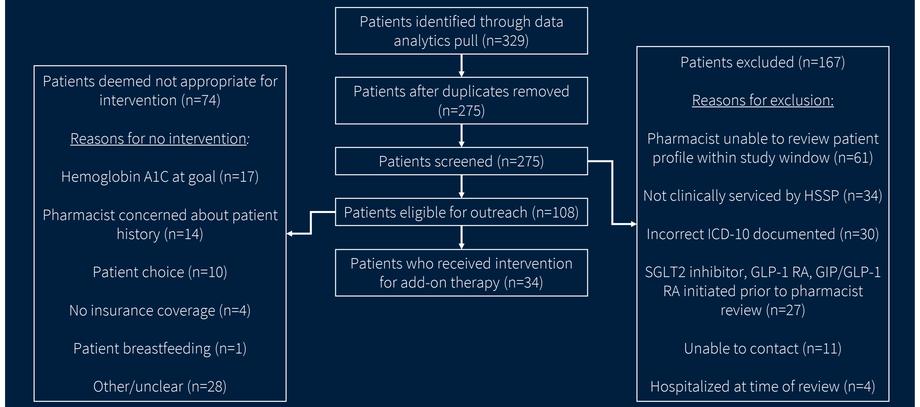


Table 1: Patient Demographics Among Those Eligible for Outreach

Characteristic	Patients (*n*=108)
Median age (IQR) – yr	67 (48-86)
Female sex – n (%)	64 (59)
Baseline hemoglobin A1C - %	
Median (IQR)	9.5 (5.8-13.2)

Figure 2: Pharmacist Intervention Outcomes (n=34)

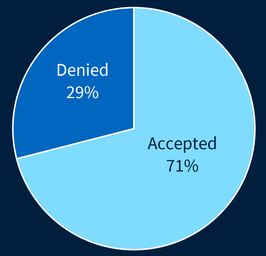
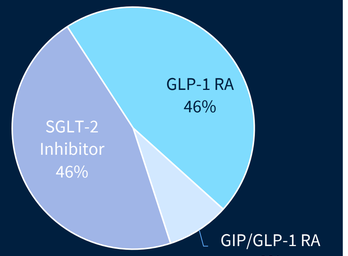


Figure 3: New Therapies Added (n=24)



DISCUSSION AND CONCLUSION

Gaps in guideline-directed prescribing remain for patients with T2DM, and HSSP pharmacists are well positioned to support prescribers and ensure patients are optimally managed.

Pharmacists tend to be well versed in clinical guidelines and can utilize their clinical expertise to recommend patient-specific therapeutic options.

The 71% prescriber acceptance rate in this study highlights the trust that the clinic prescribers placed in the HSSP pharmacists' expertise and recommendations.

The findings of this initiative further strengthen the argument for integration of clinical pharmacists into multidisciplinary teams.

Limitations

- There was lack of documentation by pharmacists regarding rationale for why a particular medication was added (e.g., comorbidity or A1C not at goal).
- Patient out-of-pocket costs were not analyzed.
- A relatively short window (i.e., four months) for patient review and outreach; 61 patients were excluded as pharmacists were unable to review within the study period.
- For some patients, it was documented that the prescriber was opting to evaluate the patient in-person at their next office visit prior to initiating therapy, but some office visits fell outside the study window.

Future Direction

- Efforts are planned to evaluate additional patients with T2DM (e.g., not on insulin therapy) who may benefit from add-on therapy.
- A six-to-twelve-month follow-up is being considered to evaluate clinical outcomes (e.g., change in A1C) for patients who received a new therapy.

REFERENCES

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