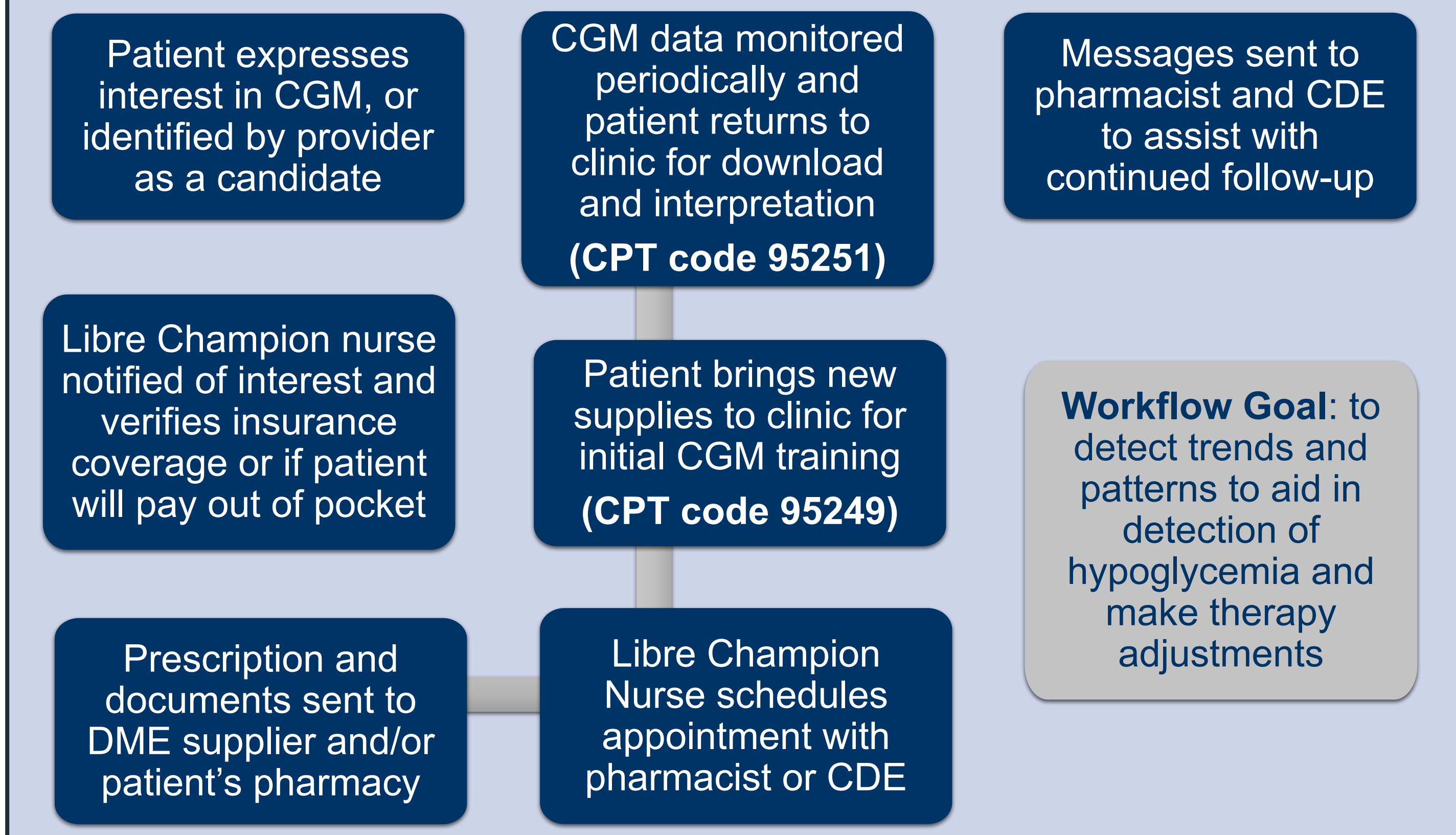# The Impact of a Pharmacist-Assisted Interprofessional Continuous Glucose Monitor Workflow in a Patient Centered Medical Home

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THE WRIGHT CENTER for COMMUNITY HEALTH

BACKGROUND

- Advances in technology have led to new, more precise methods for patients with diabetes to monitor glucose.[1]
- Freestyle Libre is a personal Continuous Glucose Monitor (CGM) that allows patients to track real-time glucose levels, detect hypoglycemia and hyperglycemia, and make clinical decisions.[1]
- LibreLink and LibreView are programs that allows patients to share their Freestyle Libre data with providers, allowing both personal and professional use of the data.
- The Wright Center (TWC) is a patient-centered medical home (PCMH), where care is coordinated through a cohesive relationship among the patient, physician, and other members of the healthcare team. Pharmacists play an important role within this team, providing medication expertise, optimizing medication therapy, and providing access and education for patient needs.[2,3]

PCMH INTERDISCIPLINARY CGM WORKFLOW

- Patient expresses interest in CGM, or identified by provider as a candidate
- CGM data monitored periodically and patient returns to clinic for download and interpretation **(CPT code 95251)**
- Messages sent to pharmacist and CDE to assist with continued follow-up
- Libre Champion nurse notified of interest and verifies insurance coverage or if patient will pay out of pocket
- Patient brings new supplies to clinic for initial CGM training **(CPT code 95249)**
- **Workflow Goal**: to detect trends and patterns to aid in detection of hypoglycemia and make therapy adjustments
- Prescription and documents sent to DME supplier and/or patient's pharmacy
- Libre Champion Nurse schedules appointment with pharmacist or CDE

OBJECTIVES

- To determine if a pharmacist-assisted interdisciplinary CGM workflow improves glycemic control of patients in a PCMH
- To assess the clinical and economic impact of incorporating a pharmacist into the workflow process of CGM training and interpretation
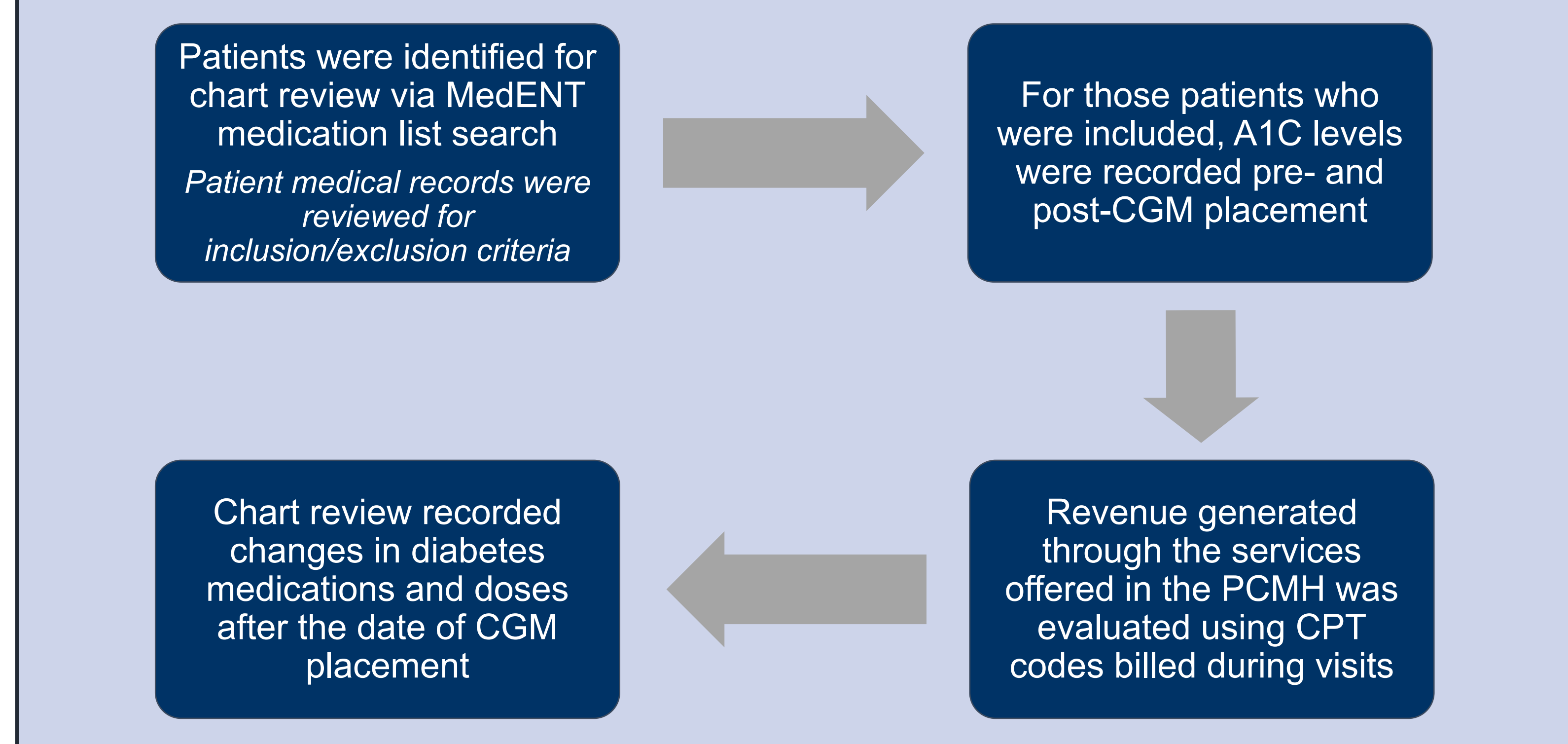
DESIGN

- Retrospective, pre-post quality assurance study

METHODS

- **Primary outcome**: changes in A1C from prior to placement of CGM to post intervention
- **Secondary outcomes:** revenue generated through reimbursement; number of antihyperglycemic medication changes as a result of CGM implementation

Inclusion Criteria	Exclusion Criteria
- ≥18 years old - Initiated on Freestyle Libre (10- or 14-day System) at TWC between November 15, 2018 and December 31, 2019	- CGM placement resulting in >72 hours of data - Patients unable to follow-up with their provider within 6 months of CGM placement

METHODS (CONTINUED)

- Patients were identified for chart review via MedENT medication list search. *Patient medical records were reviewed for inclusion/exclusion criteria*
- For those patients who were included, A1C levels were recorded pre- and post-CGM placement
- Revenue generated through the services offered in the PCMH was evaluated using CPT codes billed during visits
- Chart review recorded changes in diabetes medications and doses after the date of CGM placement

RESULTS

- 69 patients were identified for chart review with a Freestyle Libre personal device included in TWC medication list
- 20 of these patients met the inclusion criteria
- 49 patients were excluded
  - Most common reasons for exclusion included Freestyle Libre device prescribed but not covered by insurance, prescribed but not being used, and errors in medication list documentation

TABLE 1: BASELINE CHARACTERISTICS

Characteristic	n=20
Age, Average (years)	58
Range (years)	33–78
Gender, n (%)	
Male	7 (35%)
Female	13 (65%)
Ethnicity	
Non-Hispanic	18 (90%)
Unknown	2 (10%)
Race	
White	19 (95%)
Black	1 (5%)
Location	
Mid Valley	12 (60%)
Clarks Summit	6 (30%)
Scranton	1 (5%)
South Wilkes-Barre	1 (5%)
A1C, Average (%)	9.7%

After implementation of a CGM device, patients in this study reduced their A1C by an average of 0.6%
- CPT code 95250 generated an average of $127.74 per patient
- CPT code 95251 generated an average of $14.29 per patient
- 6 patients (30%) were initially trained by a pharmacist
- After implementation of a CGM device, patient's antihyperglycemic medications were adjusted by an average of 1.95 changes per patient
  - Most common medication changes included adjustment of long-acting insulin doses, increase in metformin dose, and initiation of a GLP-1 agonist

RESULTS (CONTINUED)

FIGURE 1: AVERAGE A1C PRE-INTERVENTION VS POST-INTERVENTION

- Average A1c: 9.7 (Pre), 8.8 (CGM Placement)
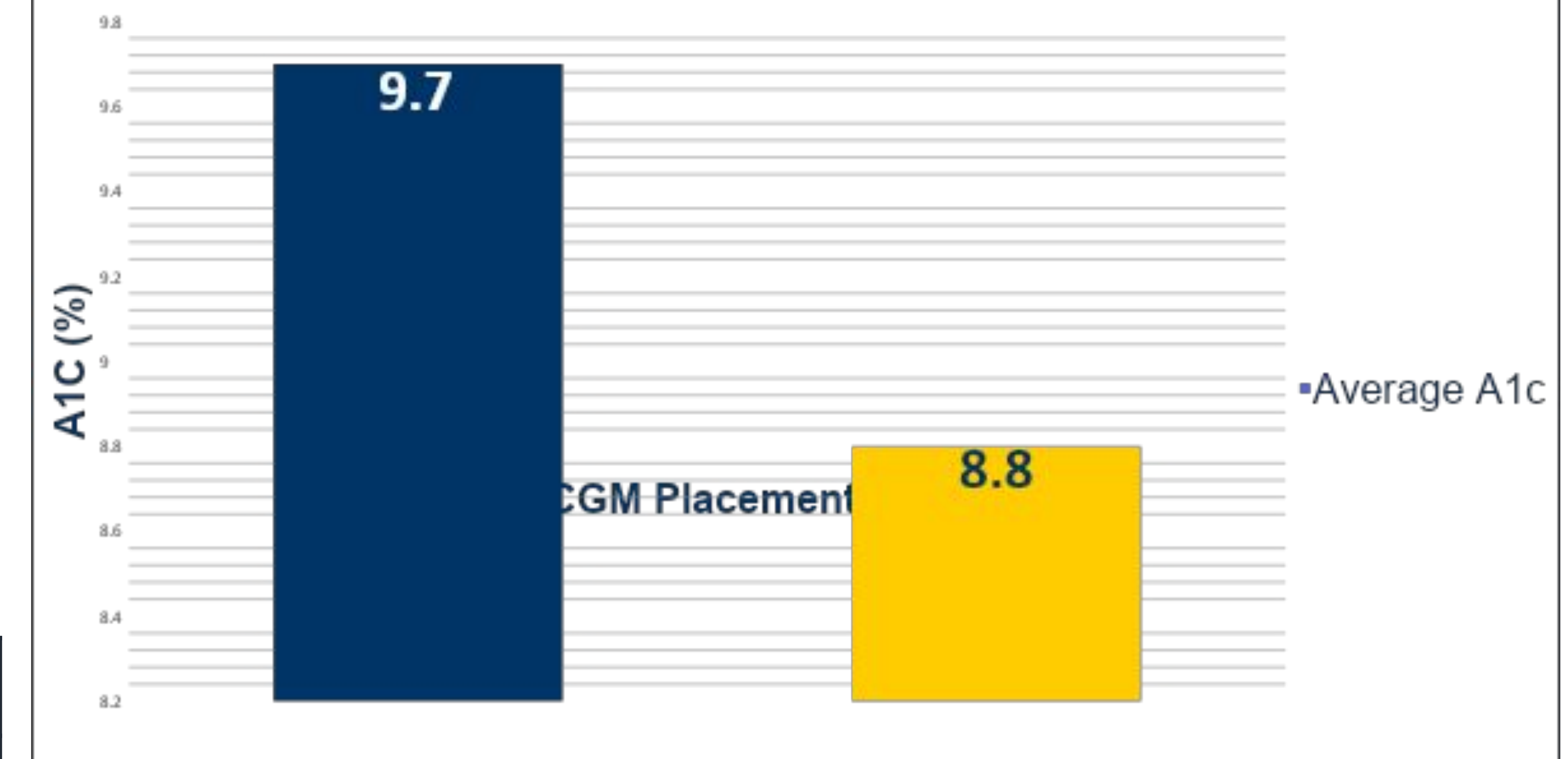
DISCUSSION

- On average, A1C was reduced by 0.6% after CGM placement.
- This data suggests that a pharmacist-assisted CGM workflow involving pharmacist training and interpretation within a PCMH may lead to better control of blood glucose.
- Additionally, the data provides an average revenue generated through the billing of CPT codes per patient, providing a representation of reimbursement rates through utilization of this workflow.
- Limitations of the study include lack of follow-up A1C levels for three patients, potential for missing or incomplete data in patient medical records, and missing billing data due to TWC's current transition to FQLA causing claims to be unavailable from Medicare, Medicaid, Medicare Advantage, and Medicare MCO.

CONCLUSION

- Implementation, training, and interpretation of CGMs led to an average 0.6% reduction in A1C per patient, reimbursement of $127.74 and $14.29 per patient for CPT codes 95250 and 95251, respectively, and an average of 1.95 medication changes per patient based on evaluation of CGM data.
- Utilizing a pharmacist-assisted CGM workflow in a PCMH may lead to better glycemic management, reimbursement based on CPT codes, and interpretation of data leading to adjustments in antihyperglycemic therapy.

DISCLOSURES

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships that may have a direct or indirect interest in the subject matter of this presentation.

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