

Bridging the Gap:

A provider-targeted approach to increasing awareness of continuous glucose monitors for people with type 2 diabetes

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ABSTRACT

Introduction: Primary care providers may have knowledge gaps regarding CGM use in non-insulin-treated T2DM. This project evaluated that gap at an AHEC in Western North Carolina.

Methods: A QI project using a brief educational handout distributed to 28 AHEC primary care providers, evaluated via an anonymous post-intervention survey.

Results: After reviewing the handout: 79% improved CGM evidence awareness, 82% improved understanding of clinical benefits, 89% increased awareness of OTC CGM options, and 71% reported greater willingness to discuss short-term/intermittent CGM with T2DM patients.

Implications: Brief provider-focused education may improve CGM knowledge and willingness in primary care. Continued education and system-level supports are needed to address persistent access barriers.

INTRO / PURPOSE

Introduction

T2DM affects 37+ million adults in the U.S. and accounts for 90–95% of all diabetes diagnoses (CDC, 2023). CGMs provide real-time glucose data that improve glycemic control and treatment satisfaction (Maiorino et al., 2020; Seidu et al., 2024). Evidence increasingly supports CGM benefit for non-insulin-treated T2DM (Reed et al., 2024; Vigersky et al., 2017). Despite improvements in A1C and time in range, CGM use in this population remains low due to cost, insurance, and limited provider awareness (Maiorino et al., 2020; Mayberry et al., 2023).

Problem Statement

Despite evidence showing CGM improves A1C, time in range, and self-management in non-insulin-treated T2DM (Moon et al., 2022; Reed et al., 2024; Vigersky et al., 2017), many providers remain hesitant due to cost concerns, insurance gaps, and limited familiarity with newer CGM options (Fonda et al., 2023; R. Ferreira, 2024; Mayberry et al., 2023).

Purpose

To evaluate whether a brief educational intervention could improve provider awareness and willingness to discuss CGM use with patients who have non-insulin-treated T2DM.

PROJECT OBJECTIVES

1. To evaluate current evidence regarding current attitudes, beliefs, and practices related to CGM utilization for the treatment of patients with T2DM.

2. To implement a brief educational handout for primary care providers at an AHEC in WNC aimed at assessing and enhancing provider knowledge, attitudes, beliefs around CGMs, and their willingness to recommend CGMs for patients with non-insulin-treated T2DM.

STUDY DESIGN

Methodology: A QI initiative at an AHEC in Western North Carolina. A brief, low-cost educational handout was developed and distributed to AHEC family medicine and primary care providers, summarizing current evidence, benefits, and practical considerations for short-term CGM use.

Following the intervention, providers completed a survey assessing knowledge, attitudes, perceived barriers, and willingness to discuss CGM use in clinical practice.

Setting and Participants: The project was conducted among providers within the AHEC primary care network. Twenty-eight eligible participants were identified, including physicians, nurse practitioners, physician assistants, and resident physicians.

HANDOUT

CONTINUOUS GLUCOSE MONITORS (CGMs) IN TYPE 2 DIABETES CARE

Expanding the Role of CGMs

- Traditionally used in Type 1 diabetes and insulin-treated Type 2 diabetes: Most current CGM use is focused on individuals using insulin to manage their diabetes.
- Despite evidence of benefit, patients with type 2 diabetes who are not on insulin have low rates of CGM use.
- Short-term use of CGMs can identify trends and behaviors: Wearing a CGM for 10–14 days can help patients and providers visualize glucose patterns and identify lifestyle impact.
- Early research shows short-term or intermittent CGM use can lower overall and long term diabetes related costs.

CGM use in Type 2 Diabetes

- CGMs provide data on blood sugar levels overnight, after meals, and during physical activity developing a greater awareness of lifestyle choices on glycemic control.
- The use of CGMs with non-insulin treated T2D can improve glycemic control and reduce cardiovascular risk.
- The impact of CGM use on A1C reduction is comparable to that of initiating an oral diabetes medication.

Consider discussing CGM use with patients who have T2D

CGM use can even improve glycemic control in patients with non-insulin treated T2D

Consider short-term CGM use when developing individual patient care plans

Intermittent Real-Time CGM use for 12 weeks has led to meaningful and sustained A1C reduction

Short-Term Use of CGMs

- Improves Glycemic Awareness: Short-term CGM use helps patients recognize glucose trends, aiding behavioral changes in diet, activity, and medication adherence.
- Cost-Effective Strategy: Intermittent CGM use can provide actionable data without the expense of long-term use before disease progression.
- Evidence-Based Outcomes: Even short-term use is associated with improved A1C, reduced glucose variability, and higher treatment satisfaction.
- Encourages Patient Engagement: Seeing real-time data motivates patients to self-manage more effectively and understand the impact of lifestyle choices.

Consider utilizing trial periods of CGMs or OTC CGMs to for short-term use

Most CGM companies offer free trials with a prescription, and OTC options are becoming increasingly available and may be a cost-effective way to support long-term health benefits

Over The Counter CGMs

- Stelo (Dexcom) and Lingo (Abbott) are 2 main OTC CGMs FDA approved for people over the age of 18 who do not use insulin. These CGMs do not need a prescription and are available largely online.
 - Stelo is currently \$99/30 days
 - Lingo is currently \$89/4 weeks
- These devices lack 'real-time' alerts for hypoglycemia and rapid fluctuations. This makes them unsuitable for insulin dependent diabetes.
- Mean Absolute Relative Difference (MARD) is the measurement for CGM accuracy. Both Stelo and Lingo have comparable accuracy to their prescription counter parts.

Photo Caption: Handout participants received via email

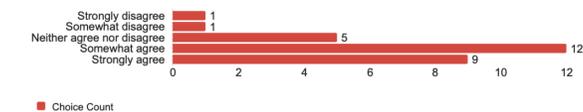
RESULTS

A total of 28 AHEC family medicine and primary care providers participated in the project. All participants endorsed CGM use as an effective strategy for helping patients with T2DM understand their glucose patterns, with 86% (n = 24) strongly agreeing and 14% (n = 4) somewhat agreeing. CGM discussions in routine care were limited. Most providers reported discussing CGMs with only 25% of their patients with T2DM (54%, n=15).

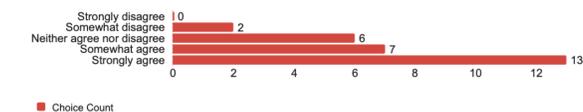
Following the educational handout, most providers reported improved awareness of CGM evidence (79%) and understanding of clinical benefits (82%). Over half (57%) of participants reported reduced perceived barriers to CGM use for T2DM, and 71% reported increased willingness to discuss short-term CGM use with patients.

Q9 & Q10 Survey Results

Q9 - The handout increased my understanding of the benefits of CGM use for patients who have non-insulin-dependent type 2 diabetes.



Q10 - After reviewing the handout, I am more willing to discuss short-term/intermittent CGM use with my patients who have type 2 diabetes.

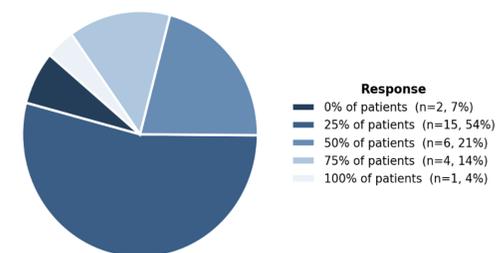


Q9: 75% of providers agreed or strongly agreed that the handout increased their understanding of CGM benefits for non-insulin-treated T2DM.

Q10: 71% agreed or strongly agreed they were more willing to discuss short-term/intermittent CGM use with patients after reviewing the handout.

CGM Discussion Frequency Among Participant's Patients with T2DM (n = 28)

Note. Responses represent the approximate percentage of all patients with T2DM with whom providers reported discussing CGM use prior to the educational intervention.



While some participants report discussing CGM use with patients who have T2DM, the majority of participants (61% n=17) report only discussing CGMs with 0-25% of their patients with T2DM.

These findings suggest that CGM discussions were occurring within this setting but were not routinely integrated into care for most patients with T2DM, indicating opportunities to increase provider awareness and incorporation of CGM.

IMPLICATIONS FOR PRACTICE

Findings suggest that brief, provider-focused educational interventions may be an effective way to improve knowledge, attitudes, and beliefs toward CGM use for patients with T2DM in primary care.

Findings indicate that even simple educational resources may help bridge the gap between emerging evidence and routine clinical practice.

Although provider knowledge and willingness improved after the intervention, the rate of CGM discussion remained lower among patients with non-insulin-dependent T2DM. This suggests that continued provider education may be needed to increase familiarity with the growing evidence supporting CGM use in this population, and particularly for short-term or intermittent use.

Educational interventions such as brief handouts may represent a low-cost and scalable strategy to increase provider awareness of CGM technology in primary care settings. However, education alone do not fully address barriers related to cost, insurance coverage, and access to CGMs.

Future practice efforts may benefit from combining provider education with additional supports, such as electronic health record (EHR) support, patient education materials, and other resources that can assist providers and patients with navigating insurance coverage for CGM devices.

CONCLUSIONS AND RECOMMENDATIONS

This QI project demonstrated that a brief, provider-focused, educational intervention can improve primary care providers' awareness of CGM use and willingness to discuss it with patients with T2DM, particularly those with non-insulin-dependent T2DM. The educational handout increased provider understanding of the supporting evidence and clinical benefits of CGM. These findings suggest that targeted provider education may help bridge the gap between emerging evidence and clinical practice. Continued education and system-level support may be needed to address barriers related to cost, insurance coverage, and access. Future work should evaluate whether improved provider awareness leads to increased CGM recommendations and improved patient glycemic outcomes.

SCAN FOR REFERENCES:



Acknowledgements

The authors would like to thank the providers within the Mountain Area Health Education Center (MAHEC) who participated in this quality improvement project. We also acknowledge the support of the Western Carolina University Department of Health & Human Sciences, the MAHEC scholars faculty, and the MAHEC research department for their guidance and collaboration in completing this project.