

Integration of the Glucose Management Indicator (GMI) into the electronic health record through a diabetes-cardiometabolic digital health app

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BACKGROUND

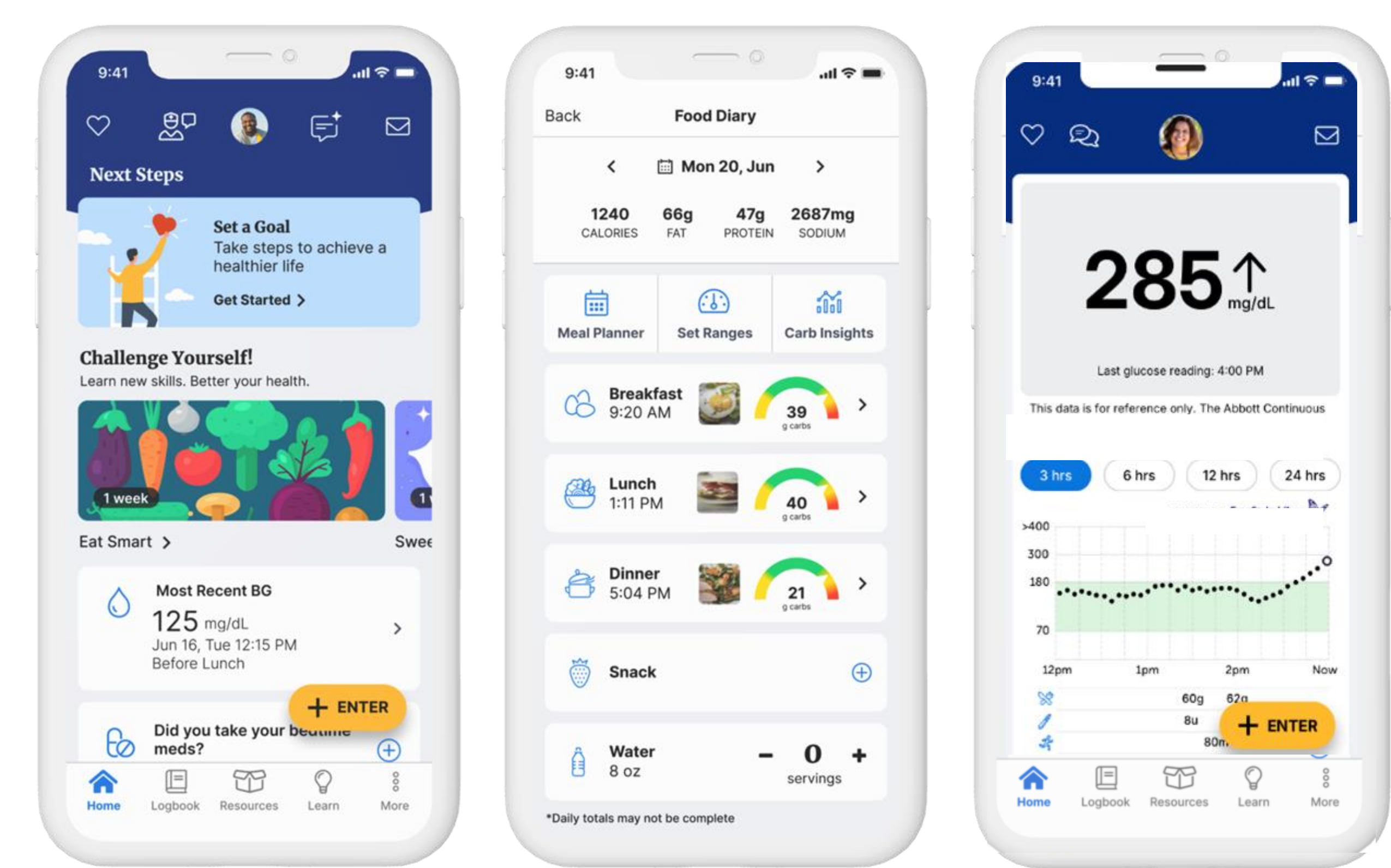
Cardiometabolic digital health solutions, which address conditions like diabetes, are increasingly being integrated into clinical care. These solutions can provide personalized, AI-driven self-management support for individuals living with chronic conditions and treatment insights to inform timely therapy optimization for clinicians (1, 2). The Allina health system (Minneapolis, MN) has successfully integrated system-wide an FDA-cleared cardiometabolic digital app (Welldoc, Columbia, MD) that syncs with continuous glucose monitoring (CGM) devices (See Figure 1).

The glucose management indicator, or GMI, is a calculated value used to estimate A1C based on CGM data (3, 4). HEDIS (Healthcare Effectiveness Data and Information Set) Quality Measures for 2025 were enhanced to include GMI as an alternative to A1C as a measure of glucose management over a 3 month period (5). GMI, often called the *digital A1C*, is calculated from the average CGM glucose. It provides a unique value in that it can be reported in a shorter time period 10-14 days and allows for faster observation of glucose changes. A1C is the measure of how much glucose has attached to the hemoglobin in the red blood cells over the life of each red blood cell and can be influenced by medical conditions such as anemia that impact the red blood cell. The incorporation of GMI as a quality metric recognizes the value of CGM metrics in assessing diabetes status. Achieving quality metrics is essential to maintaining high Health Plan Ratings and Star ratings for value-based care.

SPECIFIC AIMS/PURPOSE

This poster describes the integration of the CGM metric, GMI, into the Allina Health System electronic health record (EHR) for patients enrolled in Welldoc, the FDA-cleared digital health app for type 1 and type 2 diabetes management. This integration facilitates capture of a key quality metric for the health system.

Figure 1: Screenshots of the Welldoc Digital Health Solution



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Figure 2: View of ordering the Welldoc app within the EHR

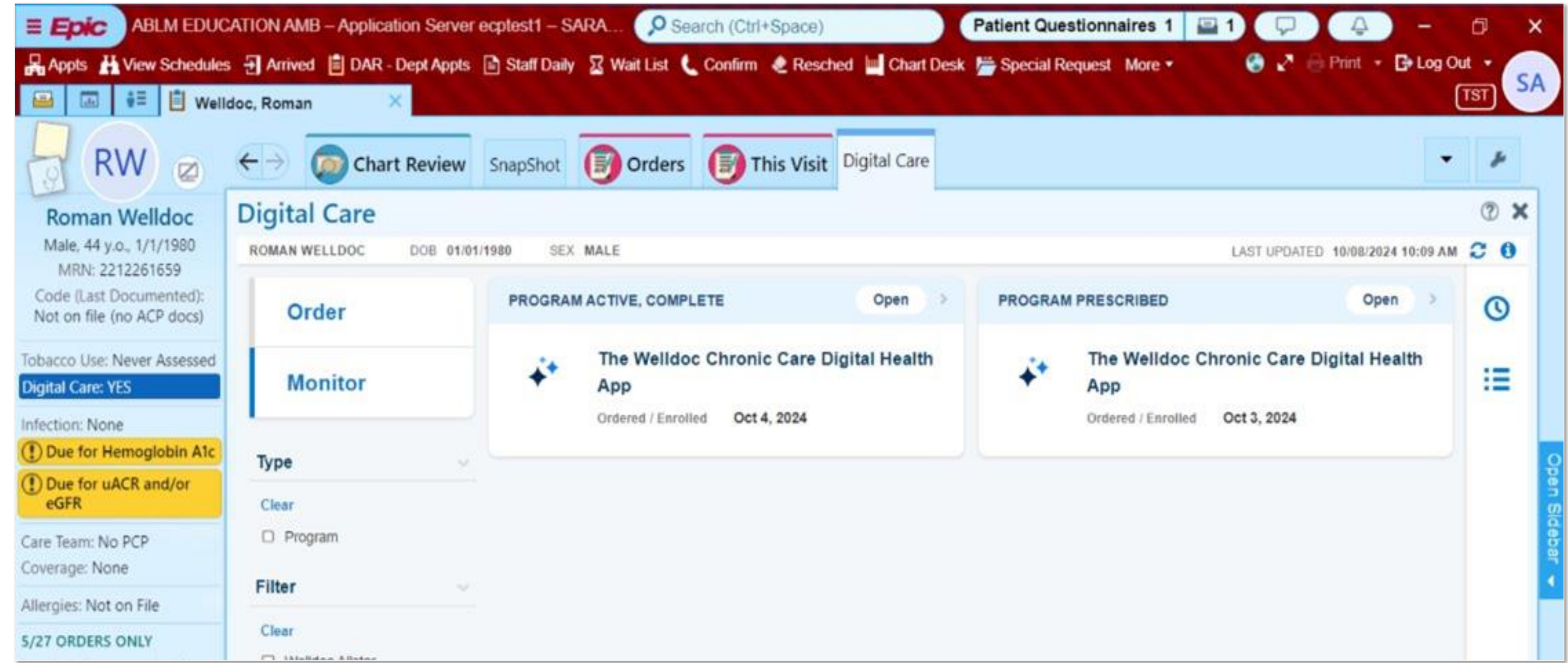


Figure 3: View of Welldoc app data, including CGM data, in the EHR

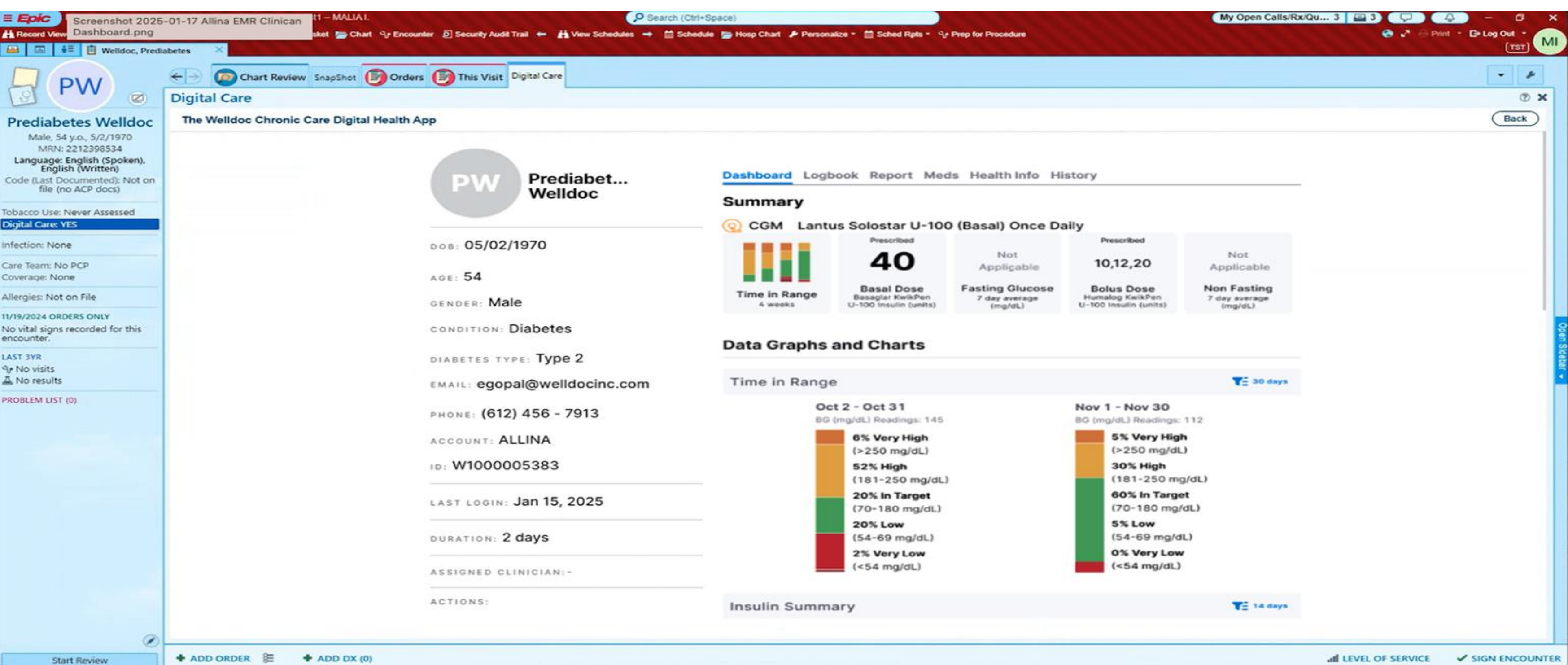
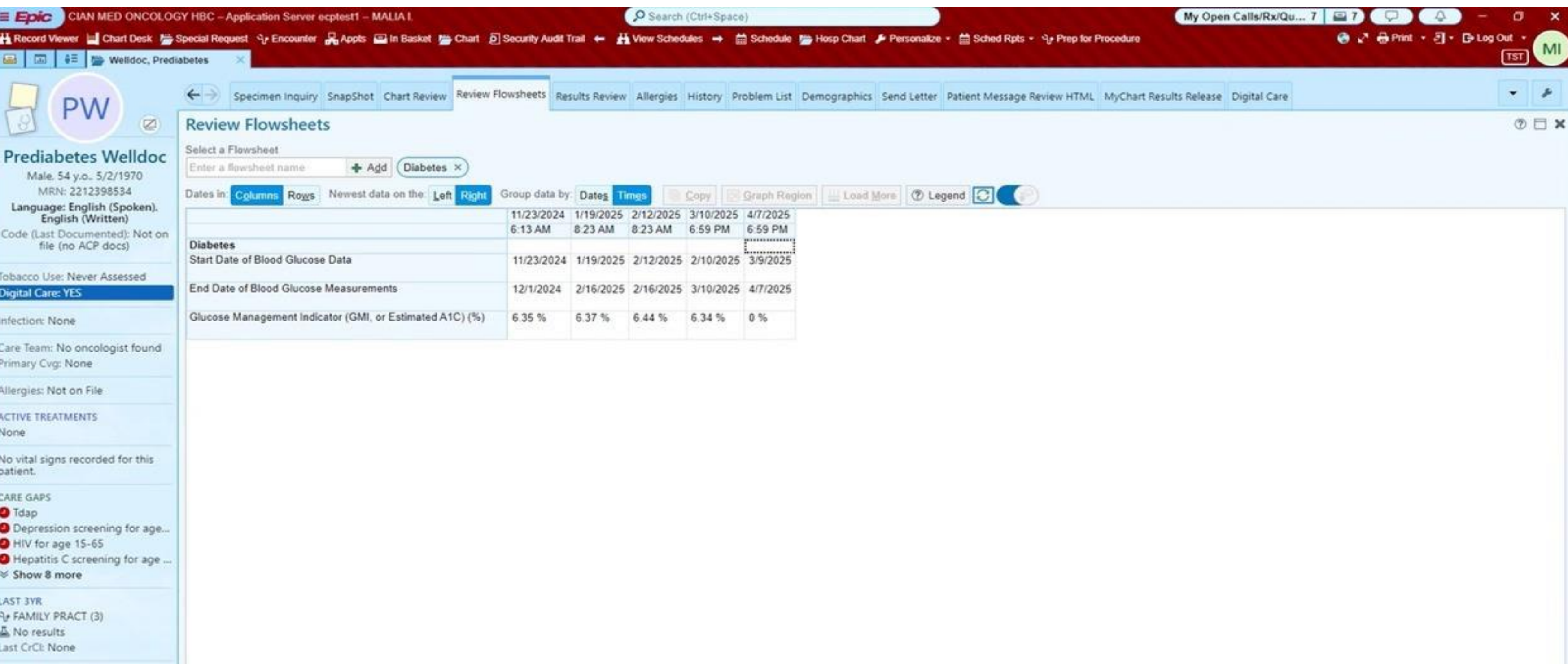


Figure 4: View of the GMI flowsheet within the EHR



IMPLEMENTATION (METHODS)

Patient/Provider Experience: The Welldoc platform is fully integrated with the health system’s EHR via middleware (Xealth, Seattle WA). A clinician is thus able to order the Welldoc app from the patient’s chart as illustrated in figure 2. This delivers an email invitation to the patient to download the preconfigured application. When an individual downloads the app, a unique link is created between the app and the patient record in the EHR. All mobile app data, including those from connected CGM devices, can be shared back in real time to the EHR. Clinicians can review the data to inform patient care and medication adjustment decisions as illustrated in figure 3. Every 28 days a new GMI value is captured which easily allows the this value to be utilized as a quality metric as illustrated in figure 4. The GMI is surfaced into a separate flowsheet in the EHR specifically created to track GMI for reporting purposes.

Rules for Calculating GMI at Allina:

- The GMI calculation, for quality metric reporting, uses this standard formula (3):
GMI (%) = 3.31 + 0.02392 × (mean glucose in mg/dL)
- The GMI will only be reported for users connected to a CGM device
- The GMI will be reported in the flow sheet only when CGM data is present for >20 days.

DISCUSSION/CONCLUSIONS

Cardiometabolic digital health solutions can be integrated into clinical care to provide a seamless EHR experience including ordering the digital health app and viewing reports. These solutions provide AI-driven self-management support for individuals living with chronic conditions and treatment insights to inform timely therapy optimization for clinicians. Data obtained from digital health apps can also support data capture and reporting, including new quality metrics such as GMI, thus supporting health system goals. Future investigation will examine the clinical utility as well as the economic value of the implementation of the GMI metric.

REFERENCES

1. Clements M, Kaufman N, Mel E. Using Digital Health Technology to Prevent and Treat Diabetes. *DT&T*. 2023;25(Suppl 1):S90-S108. DOI: 10/1089/dia.2023.2506.
2. Midyett LK. One size fits all versus individualized medicine in type 1 diabetes. *Diabet Technol Thera* 2023;25(S3):S42-S47, <https://doi.org/10.1089/dia.2023.0109>
3. Bergenstal RM, Beck RW, Close KL, Grunberger G, Sacks DB, Kowalski A, Brown AS, Heinemann L, Aleppo G, Ryan DB, Riddlesworth TD, Cefalu WT. Glucose Management Indicator (GMI): A New Term for Estimating A1C From Continuous Glucose Monitoring. *Diabetes Care*. 2018 Nov;41(11):2275-2280. doi: 10.2337/dc18-1581. Epub 2018 Sep 17. PMID: 30224348; PMCID: PMC6196826.
4. Montaser E, Abad SE, Shah VN. Changes in A1C versus GMI Across Glycemic Categories in Clinical Trials of Type 1 Diabetes. *J Clin Endocrinol Metab*. 2025 Apr 2;dgaf211. doi: 10.1210/clinem/dgaf211. Epub ahead of print. PMID: 40170496.
5. Mitri, J., Gabbay, R. A., & Puckrein, G. A. (2024). Using continuous glucose monitoring to measure and improve quality metrics: Updates on the Healthcare Effectiveness Data and Information Set 2024 Glucose Management Indicator measure. *Journal of Managed Care & Specialty Pharmacy*, 30(10-b Suppl), S30-S39.