

Endocrinology + Primary Care Practices Care Coordination Projects

Endocrine and Diabetes Consultants

Stonebrooke Family
Physicians

Expanding Continuous Glucose Monitoring (CGM) Use in Primary Care

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The Challenge

Patients with type 2 diabetes, especially those on insulin were not checking their blood sugar on a regular basis and not benefiting from the established technology of continuous glucose monitoring (CGM).

Root Causes

- 1. Lack of knowledge about the devices and the insurance coverage for it
- 2. Fear of newer technology from patient and provider
- 3. Perceived initial bias regarding application and complexity of use

Importance

Data has shown that increased frequency/utilization of glucose monitoring data is associated with improved glucose control/A1C and therefore reduced diabetes-related complications.

Also, finger stick glucose does not provide an comprehensive profile of the blood sugar during the day (time and target) which is the appropriate metric to look at in addition to A1C.

Goals

Our goal was to expand the use of CGM by 10-15% per quarter initially targeting people on multiple insulin injections a day and monitoring the effect on their A1C.

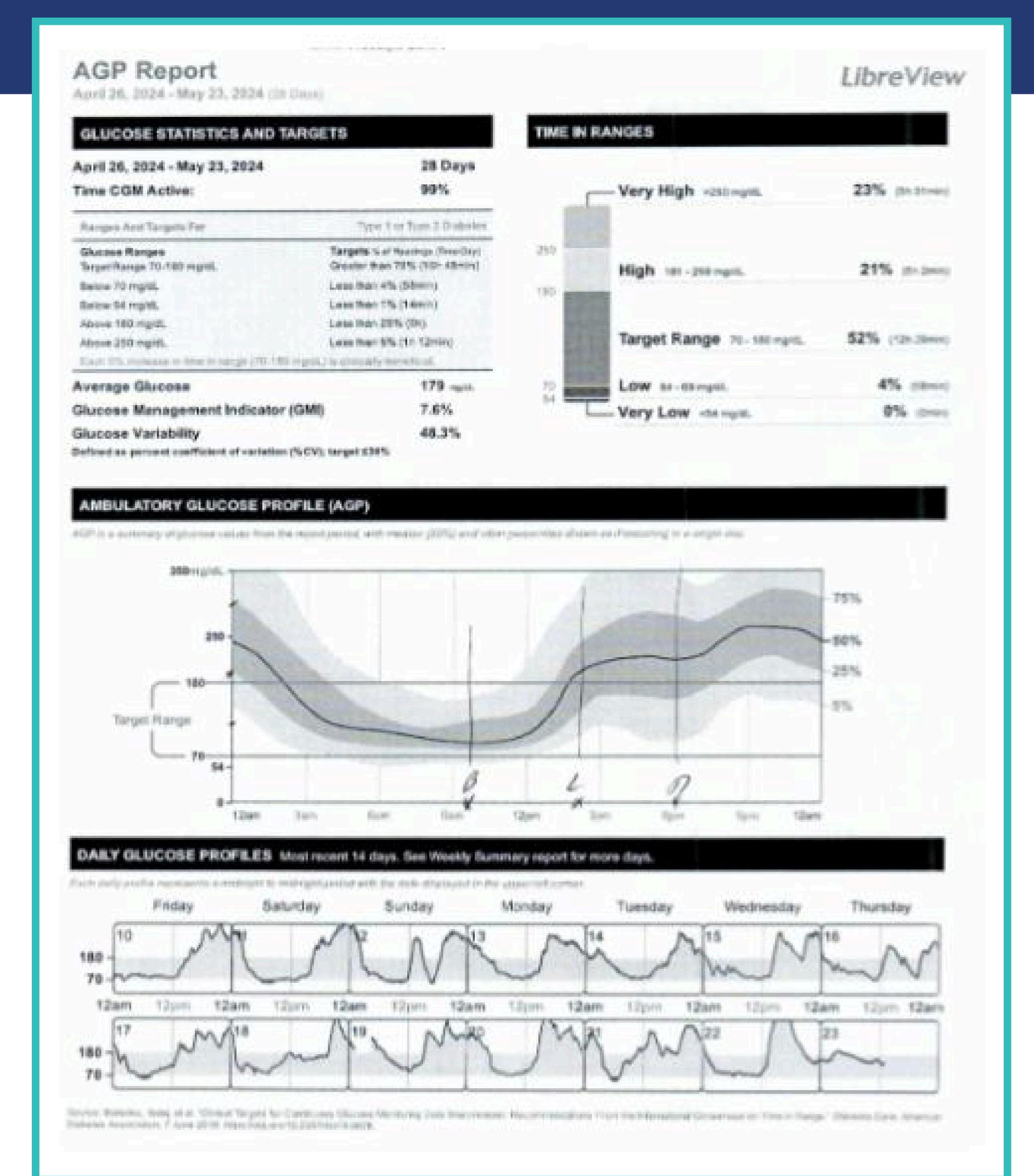


Figure 1. CGM tracing of a 81 year old man with type 2 diabetes showing a distinct pattern of normal to low blood sugar in the morning with a marked elevation after lunch and dinner. Patient used to check sugar by fingerstick in the morning showing good numbers but A1C remained high. The use of CGM identified the explanation for this discrepancy.





Current State

We increased the use of CGM by patients with type 2 diabetes and on insulin from an estimated 15% at baseline to 28% during the follow up period.

This increase was driven primarily by offering CGMs to patients who were seen by our practice.

Successes

We had a good success in the majority of patients. To begin with, those who had smartphones embraced the technology quickly. Others required a reader to utilize the CGM. The majority of patients thought the technology was an eye-opener for them.

Barriers

- Insurance coverage for CGMs
- Patient training for the CGM
- Follow up shortly after the initiation of CGM

Recommendations

- Expand the adoption of CGM preferably directly generated by the PCP.
- Streamline the training process of the CGM to the patient upon initiation.
- Maintain patient adherence to the use of CGM

Figure 2. This is the CGM profile of a 70 year old man on insulin. On the left panel, the patient CGM showing fluctuation of blood sugars in the 24 hours with a calculated A1C 6.9%. On the right is the profile after adjustment of the dose after the review of CGM data showing a much flatter and stable blood sugar average calculated A1C of 6.6%. The use of CGM allowed targeting the intervention points to make the improvements.