

Why Continuous Glucose Monitoring in Conjunction with the GluCare.Health Care Model is Important in a Patient Newly Diagnosed with Type 2 Diabetes

Cigdem Ozkan¹, Yousef Said¹, Milena Caccelli¹, Begum Demircan¹, Yasmeen Manea¹, Joelle Debs¹, Carolyn Palsky¹, Ali Hashemi¹, Ihsan Almarzooqi¹
GluCare Integrated Diabetes Center, Dubai, United Arab Emirates

INTRODUCTION

Hypoglycemia is one of the most important acute complications of diabetes. The fear of hypoglycemia has a significant effect on the quality of life of patients and their families. It also remains a major barrier to achieve optimal glycemic control.

Glucare Health is a hybrid, data-driven approach to the management of metabolic diseases and combines in-clinic treatment with Continuous Metabolic Monitoring (CMM) through wearables, so patients are in continuous contact with their care team in the cloud. This team consists of physicians, educators, nurses, dietitians, and coaches, and provides real-time support when the patient needs it most, not just during their clinical visits. Patients were also encouraged to log their meals via a picture using a connected app which also allowed them to communicate with their care team continuously.

Overall, the GluCare program aims to provide continuous patient supervision and support through personalized lifestyle coaching and behavioural change.

CASE REPORT

A 42 year old male patient presented with symptoms of polyuria and polydipsia. He was diagnosed with type 2 Diabetes Mellitus in another center when he was admitted for cholecystectomy. He had been advised empagliflozin/metformin and insulin for diabetes management. Patient refused to use insulin and visited our clinic for his long term treatment plan. His blood glucose: 109 mg/ dL HbA1c: 10% - There was nothing significant in his physical examination. Tirzepatide 2.5 mg/ week- Empagliflozin/ Metformin twice daily and onboarding into the GluCare platform was advised to him. In his follow up after 14 days according to his food logging and CGM data he received feedback from the dietician, diabetes educator and exercise / sleep recommendations from the health coaches. In the third week of his follow up, although it was not expected, he started to observe low blood glucose values in CGM which was also confirmed with a home blood glucose measurement device. Tirzepatide stopped and continued with empagliflozin/ metformin. Patient did not experience hypoglycemia anymore. During his follow up his time in range was 95% and glucose management indicator was 5.9 %.

DISCUSSION / CONCLUSIONS:

In a conventional healthcare model, patients with diabetes are evaluated episodically with both engagement and data gaps occurring between scheduled patient visits. Diabetic patients, especially those newly diagnosed, can be better managed when using platforms such as GluCare Health which includes the continuous monitoring and engagement of patients by their care team. CMM generates personalized data and is utilized by care teams to provide the necessary insights to help educate patients about their lifestyle choices and behaviour, in addition to evaluating medication choices, in a hyper-personalized manner to avoid non-compliance with treatment. Long term randomized controlled trials needed to evaluate the effect of CGM in conjunction with the GluCare.Health Care Model to prevent acute and long term complications from diabetes.

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