

1 Backgrounds and aims

Diabetes stands as a significant global health challenge, necessitating novel approaches to enhance treatment outcomes. Both conventional care or digital only approaches frequently struggle to meet patients' goals. This program by GluCare Health in Dubai, United Arab Emirates (UAE), combines both in-clinic, human-delivered components with continuous digital monitoring and engagement in a vertically integrated care model. The aim of this study is to assess a hybrid model's effectiveness, combining remote monitoring with in-clinic care.

Overview of the GluCare Hybrid Journey

The GluCare.health Hybrid Journey represents an innovative approach in diabetes management by integrating digital health tools with traditional in-person care. This model utilizes wearable devices to continuously monitor patients' vital signs and glucose levels, enabling real-time data analysis.

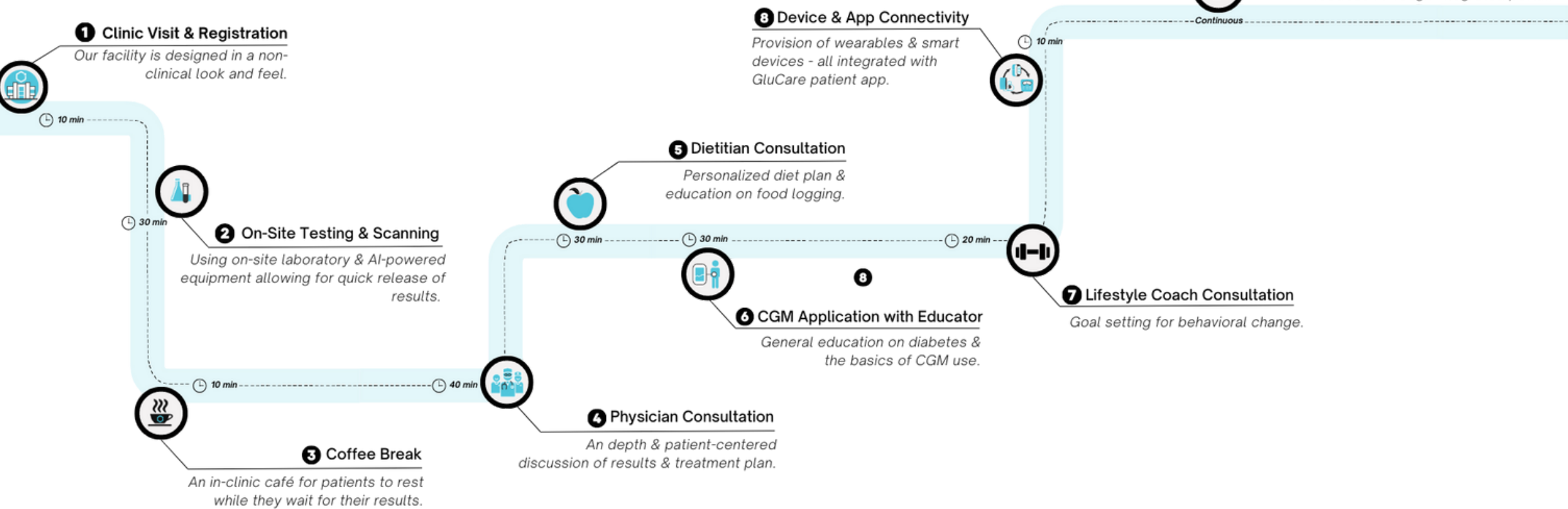


Figure 1: Overview of the GluCare.Health Hybrid Model of Care

2 Methodology

A retrospective study of 89 Type 2 Diabetes (T2D) patients predominantly receiving anti-diabetic medications and actively managed within traditional care providers in the UAE. Patients were categorized as adherent or non-adherent based on GluCare's criteria.

- Adherence Criteria** -----> Adherent patients met at least 2 of 3 criteria
- 1 -----> Regular communication with a healthcare professional every 2 weeks via app, phone, or online.
 - 2 -----> Recorded body weight at least monthly.
 - 3 -----> Continuous CGM readings over 30 days.

3 Results

12 months Improvements

Over 12 months, patients adhering to the hybrid GluCare Health model demonstrated substantial HbA1c reductions (-1.53 ± 1.5 , $p < 0.001$) compared to non-adherent patients (-0.18 ± 0.79 , $p = 0.490$). Improved lipid profiles, total Cholesterol (-16.6 ± 50.3 , $p = 0.034$), and LDL levels (-18.65 ± 42.6 , $p = 0.006$) were observed.

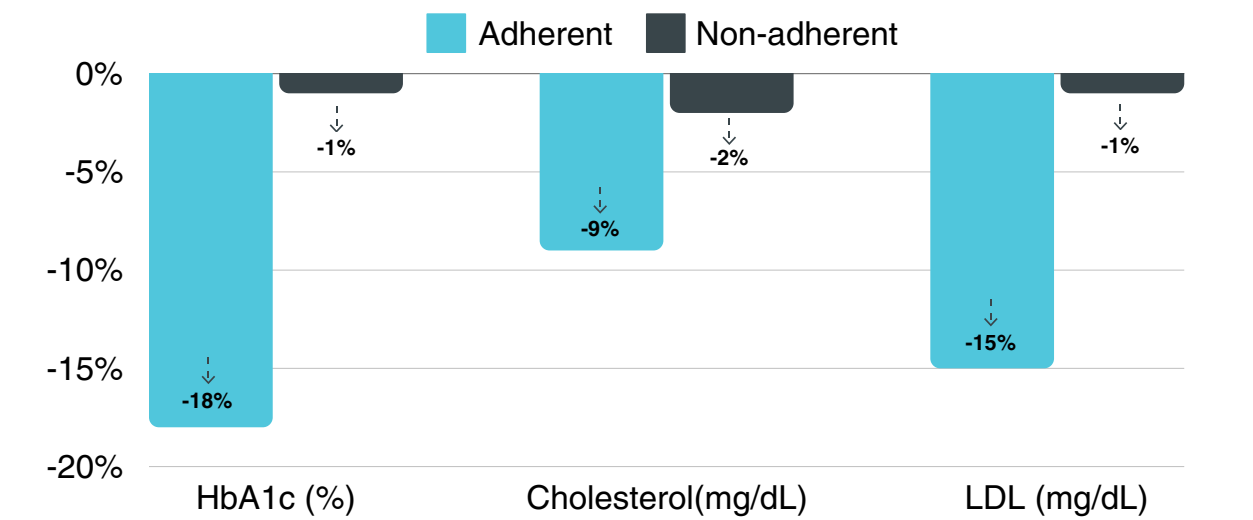
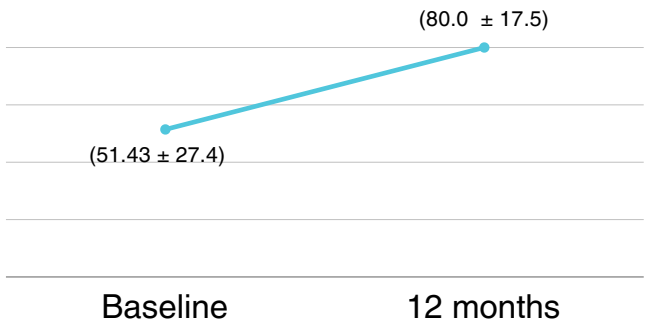


Figure 2: Percentage reductions in adherent vs. Non-adherent patients

Time in Range Improvements

CGM use by adherent patients showed significant benefits, with a mean Time in Range (TIR) of 80.0 ± 17.5 ($p = 0.004$) exceeding 70%, meeting ADA CGM target after 1 year.



4 Conclusions

The hybrid model successfully treated established but poorly controlled T2D patients resulting in significant HbA1c level improvements and other outcomes within a year. This highlights traditional care drawbacks on medication reliance, emphasizing the necessity of a hyper-personalized, continuous approach for managing T2D.