Managing Pre-Diabetes/IH & T2D 2026: Guidelines on Monitoring & Multisystem Health

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Podcast: The use of continuous glucose monitoring in pre-diabetes/IH (intermediate hyperglycemia), type 2 diabetes and obesity

Learning Objectives:

- ✓ Understand that CGM can improve the rate and timing of dysglycaemia (IH/T2D) detection.
- ✓ Be aware that CGM real-time data may allow individualised interventions to help prevent disease progression

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Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range

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Integration of artificial intelligence and wearable technology in the management of diabetes and prediabetes

Check for updates

Raphael A. Fraser, Rebekah J. Walker, Jennifer A. Campbell, Obinna Ekwunife & Leonard E. Egede

Artificial intelligence and wearable technology are increasingly used in healthcare and hold significant potential for improving the management of diabetes. Wearable devices enable continuous monitoring and real-time data collection, supporting AI-driven personalized interventions. This systematic review evaluated peer-reviewed studies that examined the integration of AI and wearable technology in diabetes management, with a focus on clinical and self-management outcomes. Sixty studies were included following a review of over 5000 records. AI models paired with wearable devices showed promise in glycemic monitoring, adaptive insulin management, and predicting diabetes-related events. Continuous glucose monitors and other wearables also enhanced self-management and informed clinical decision-making. However, key challenges persist, including limited demographic diversity, variable data quality, a lack of standardized benchmarks for evaluating AI performance, and limited interpretability of complex models. Future research should prioritize improving model transparency, addressing demographic disparities, and establishing clear benchmarks to support equitable and effective implementation in diabetes care.

Take Home Messages:

- ✓ CGM can identify and subsequently guide treatment for the early stages of T2D (stage 2 T2D/IH/pre-diabetes), reverse the disease and restore health
  - ✓ CGM is a tool that can identify early dysglycaemia in any stage including stage 2 T2D, and gestational diabetes
  - ✓ Interventions may follow if CGM consistently identifies a value of 140mg/dL (7.8 mmol/L) in >10% readings in a 14-day observational period

CGM, continuous glucose monitoring; IH, Intermediate hyperglycaemia; T2D, type 2 diabetes

1. Battelino T, et al. Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range. Diabetes Care. 2019 Aug;42(8):1593-1603. doi: 10.2337/dci19-0028. Epub 2019 Jun 8. PMID: 31177185; PMCID: PMC6973648; 2. Fraser RA et al. Integration of artificial intelligence and wearable technology in the management of diabetes and prediabetes. NPJ Digit Med. 2025 Nov 18;8(1):687. doi: 10.1038/s41746-025-02036-9. PMID: 41254217; PMCID: PMC12627454