primary studies - published, non RCT

The Effect of Control IQ Hybrid Closed Loop Technology on Glycemic Control in Adolescents and Adults with Cystic Fibrosis-Related Diabetes.

Code: PM35020476 **Year:** 2022 **Date:** **Author:** Scully KJ

Study design (if review, criteria of inclusion for studies)

Multicenter retrospective study

Participants

13 adults and adolescents with CFRD

Interventions

Tandem t:slim X2 pump with Control IQâ„¢ technology, a HCL system.

Outcome measures

14 days of continuous glucose monitor data were analyzed at baseline, 1 and 3 months after transition to the Tandem t:slim X2 pump with Control IQâ„¢ technology

Main results

Control IQ initiation was associated with a significant increase in % time in target range (70-180â€‰mg/dL), as well as decreases in average glucose, % time in hyperglycemic ranges (% time >180â€‰mg/dL, % time >250â€‰mg/dL), and glycemic variability (standard deviation, coefficient of variation). There was no significant change in % time in hypoglycemia ranges (% time

Authors' conclusions

This is the first study to report a beneficial effect of Food and Drug Administration (FDA)-approved HCL technology on glycemia in adults and adolescents with CFRD to date. Future studies are needed to understand the potential long-term glycemic benefits of HCL devices and to explore the impact of this technology on heath-related quality of life, pulmonary function, nutritional status, and mortality.

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See also

Diabetes Technol Ther. 2022 Jun;24(6):446-452. doi: 10.1089/dia.2021.0354. Epub 2022 May 12.

Keywords

hybrid closed loop (HCL) technology; non pharmacological intervention - devices OR physiotherapy; Diabetes Mellitus; Pancreatic Diseases; Gastrointestinal Diseases;