

Analysis of a Remote System to Closely Monitor Glycemia and Insulin Pump Delivery—Is This the Beginning of a Wireless Transformation in Diabetes Management?

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Abstract

Episodes of hypoglycemia and hyperglycemia in between blood glucose checks—especially during sleep—can go unrecognized for children and adolescents with type 1 diabetes mellitus (T1DM). Continuous glucose monitoring (CGM) systems have introduced a new tool to monitor glucose levels for people with diabetes in real time and to alert them when glucose levels are above or below target range. However, many of the alarms are not heard at night by the children or adolescents or by their parents who oversee their treatment. The mySentry™ system is a device that is designed to relay real-time insulin pump and CGM data for display elsewhere in the house. In this issue of *Journal of Diabetes Science and Technology*, Kaiserman and coauthors report on the acceptability, usefulness, and user friendliness of the mySentry for families with children and adolescents with T1DM, which was determined by survey results during a 3-week study period. Based on the results, the mySentry system met all predefined criteria for acceptability without safety issues in this small-scale, short-term study and as an example of wireless systems integration in diabetes management.

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Abbreviations: (CGM) continuous glucose monitoring, (SAP) sensor-augmented insulin pump, (T1DM) type 1 diabetes mellitus

Keywords: children, continuous glucose monitoring, diabetes, hyperglycemia, hypoglycemia, insulin pump, technology

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