

More accurate continuous glucose monitoring systems can reduce frequency of hypoglycemic episodes

June 5 2015



Credit: ©Mary Ann Liebert, Inc., publishers

In silico experiments demonstrate that advanced sensor and software technology that improves the accuracy of Continuous Glucose Monitoring (CGM) can enable better detection of dangerously low blood sugar and reduced frequency of hypoglycemic episodes. The significance of this direct relationship between the accuracy of CGM and a reduction in hypoglycemia is explored in a Commentary published in *Diabetes Technology & Therapeutics (DTT)*.

Boris P. Kovatchev, PhD, University of Virginia Center for Diabetes Technology, Charlottesville, describes the results of in silico experiments his group performed to model and simulate the effect of glucose sensor error on glycemic control. The computer simulations used real data derived from studies of the original Dexcom G4 Platinum CGM system and the newer G4 Platinum with software version 505. The data provided a measure of the [accuracy](#) of the sensor in the hypoglycemic range. Dr. Kovatchev discusses the implications of the findings for continued adoption and future development of CGM in "[Hypoglycemia Reduction and Accuracy of Continuous Glucose Monitoring](#)."

"Accuracy of continuous glucose monitors is important especially for early detection of [hypoglycemia](#) and reliable closed-loop systems," says DTT Editor-in-Chief Satish Garg, MD, Professor of Medicine and Pediatrics at the University of Colorado Denver.

More information: The article is available free on the DTT website until July 5, 2015.

Provided by Mary Ann Liebert, Inc

Citation: More accurate continuous glucose monitoring systems can reduce frequency of hypoglycemic episodes (2015, June 5) retrieved 3 May 2024 from <https://medicalxpress.com/news/2015-06-accurate-glucose-frequency-hypoglycemic-episodes.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.