

Primary care intervention reduces hypoglycemia risk from type 2 diabetes overtreatment in older adults

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A newly published quality improvement study shows how a simple intervention by health care providers reduced the number of older adult

patients with type 2 diabetes at risk for hypoglycemia (low blood sugar) by almost 50% and led to de-escalation of diabetes medications that cause hypoglycemia in 20% of patients.

The study, "Reducing Hypoglycemia From Overtreatment of Type 2 Diabetes in Older Adults: The HypoPrevent Study," was published in the [*Journal of the American Geriatrics Society*](#).

Twenty percent of Americans aged 65 and older have [diabetes](#). This age group is particularly at risk for [hypoglycemia](#) because older people are often overtreated with insulin and other diabetes medications that can cause hypoglycemia. Severe hypoglycemia episodes in [older adults](#) can lead to adverse events such as falls, seizures, coma, and even death.

Severe hypoglycemia from insulin and certain oral type 2 diabetes medications is the second most common adverse drug event resulting in [emergency room visits](#) and hospitalizations in [older people](#) with diabetes.

"This study demonstrates that a low-cost clinical decision support tool, without the additional use of continuous glucose monitoring technology, can decrease the number of patients at high risk for hypoglycemia and reduce overtreatment with insulin and diabetes medications that cause hypoglycemia," said study author Jeffrey B. Boord M.D., M.P.H., of Parkview Health System in Fort Wayne, Ind.

Boord is the Chair of the Endocrine Society's Hypoglycemia Prevention Initiative Steering Committee. "The patients in our study also reported significant reductions in the negative impact of hypoglycemia on their daily lives."

The study included 94 patients at risk of treatment-related hypoglycemia at Pottstown Medical Specialists in Pottstown, Pa. Physicians were trained on how to use a clinical decision support (CDS) tool to facilitate

shared decision making with patients and improve health outcomes.

During three clinic visits over six months, the clinicians used the tool to assess hypoglycemic risk, set individualized HbA1c (blood sugar level) goals, and reduce or discontinue the use of diabetes medications that can cause hypoglycemia.

The use of the clinical decision support tool and shared decision making reduced the at-risk population by 46% and led to the discontinuation of hypoglycemic medications in 20% of participants. Patients also completed a validated patient-reported outcome tool (TRIM-HYPO) to evaluate the impact of non-severe hypoglycemic events on their daily lives. The patients reported improvements in their daily functioning, emotional well-being, diabetes management, sleep disruption and work productivity related to reduction in non-severe hypoglycemic events.

"Because this intervention was so successful, we hope that our clinical decision support tool could be adopted for use in other primary care settings to lower the risk of hypoglycemia and improve the overall well-being of older adults with diabetes," Boord said.

The HypoPrevent study was part of a larger, multi-year joint effort by the Endocrine Society and Avalere Health, known as the Hypoglycemia Prevention Initiative, to determine [best practices](#) in primary care to reduce the impact of hypoglycemia on older (65+) people with type 2 diabetes who use medications that cause hypoglycemia and have a recent A1c

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