Computerized decision support system helps to reduce cardiovascular risk factors in patients with diabetes

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Compared with team-based care alone, the addition of a computerized clinical decision support system (CDSS) significantly reduced

cardiovascular risk factors in patients with diabetes. These findings may have important public health and clinical significance in low- and middle-income countries where there is a lack of diabetes specialists to manage patients. The findings are published in *Annals of Internal Medicine*.

Diabetes has become a major public health challenge in low- and [middle-income countries](link) and patients with [diabetes](link) often have multiple comorbid conditions such as obesity, hypertension, dyslipidemia, and cardiovascular disease (CVD). A major barrier to care in these countries is the insufficient number of diabetes specialists. A CDSS that helps [health care providers](link) implement protocol-based treatment could improve both adherence to clinical guidelines and clinical outcomes.

Researchers from the First Affiliated Hospital of Xiamen university, Xiamen, China and Tulane University School of Public Health and Tropical Medicine randomly assigned 38 community health centers to either team-based care with a CDSS or team-based care alone interventions.

A total of 11,132 individuals aged ≥50 years with uncontrolled type 2 diabetes and comorbidities were enrolled to compare the effectiveness of CDSS for controlling glycemia, lipids, and blood pressure. The CDSS was fully integrated with team-based care to help [primary care physicians](link) and health coaches make decisions about care based on clinical guidelines. During the 18-month intervention, the authors found that patients in the CDSS group had significantly but modestly lower HbA1C levels, LDL-C levels, and systolic BP than those at centers without a computerized CDSS. This system could help to solve real-world issues in diabetes management by helping health care providers without sufficient training in diabetes care manage patients.

According to the authors, these findings support widespread adoption of this implementation strategy in community primary care settings in

China and other low- and middle-income countries to reduce CVD risk among patients with diabetes.

More information: Xiulin Shi et al, Comparative Effectiveness of Team-Based Care With and Without Clinical Decision Support System for Diabetes Management, *Annals of Internal Medicine* (2022). [DOI: 10.7326/M22-1950](https://doi.org/10.7326/M22-1950)

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