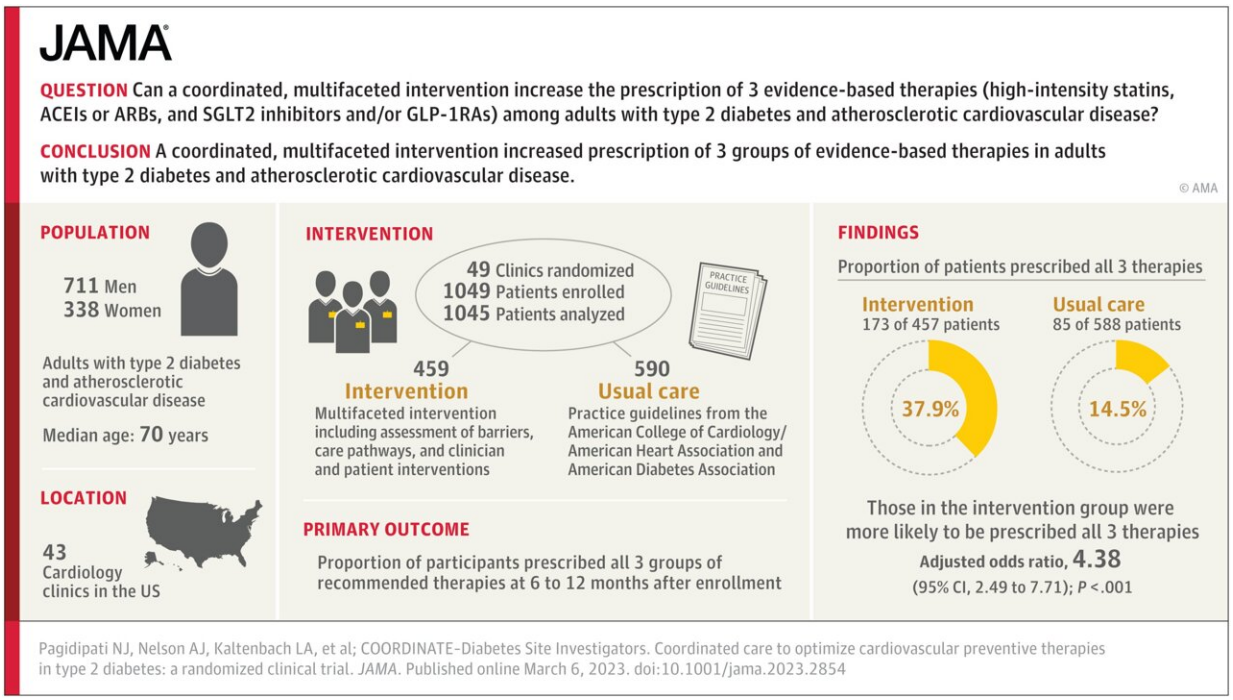
Medical Xpress

Multifaceted strategy boosts preventive care for diabetes, heart disease

March 7 2023



Visual Abstract. Coordinated Care to Optimize Cardiovascular Preventive Therapies in Type 2 Diabetes. Credit: *JAMA* (2023). DOI: 10.1001/jama.2023.2854

A multifaceted intervention to improve prescribing practices increased the likelihood that patients with type 2 diabetes and heart disease would be prescribed three classes of guideline-recommended medications by more than fourfold, according to research presented at the American

College of Cardiology's Annual Scientific Session Together With the World Congress of Cardiology. This study was simultaneously published online in the *Journal of the American Medical Association (JAMA)* at the time of presentation.

People with type 2 diabetes and heart disease face a high risk of serious cardiac events, and preventive medications are effective at reducing illness and premature death among these patients. However, very few such patients are prescribed all guideline-recommended preventive medications that could help them.

The study sought to improve prescribing practices in this high-risk population by better coordinating care among cardiologists, diabetes care specialists and primary care clinicians. The intervention's high success rate is particularly notable in a field where previous studies found significant challenges influencing prescribing behavior among clinicians, according to researchers.

"The results were very exciting," said Neha J. Pagidipati, MD, MPH, associate professor of medicine in cardiology at Duke University School of Medicine and Duke Clinical Research Institute and the study's lead author. "Especially in comparison with the staggering underuse of these therapies in routine clinical practice, this study shows that a coordinated, multifaceted intervention aimed at improving prescription of evidence-based therapy in cardiology clinics actually can improve the quality of care that patients receive."

The study was conducted in people with type 2 diabetes and established atherosclerotic heart disease (heart disease related to blocked arteries). Researchers randomly assigned 43 participating cardiology clinics to receive either basic education or a six-part tailored intervention aimed at improving prescription of three classes of medication: statins, which lower cholesterol; angiotensin converting enzyme inhibitors/angiotensin

receptor blockers (ACEi/ARBs), which lower blood pressure and protect the heart and kidneys; and sodium glucose cotransporter-2 inhibitors (SGLT2i) or glucagon-like peptide-1 receptor agonists (GLP-1Ras), which have been shown to carry important cardiovascular and kidney benefits.

Clinics receiving the multifaceted intervention collaborated to develop a clinic-specific analysis of barriers to care and a defined care pathway based on the barriers identified. They also received tools for coordinating care among clinicians, clinician-oriented education and monthly conference calls, patient-oriented educational materials and feedback on quality metrics showing how their prescribing habits compared with those of other clinics.

During the course of the study, participating clinics saw 1,049 patients with type 2 diabetes and established heart disease who were not prescribed all three medication classes at baseline. At the final follow-up visit (which occurred 12 months after the intervention in most patients), nearly 38% of patients seen at clinics that received the tailored intervention had been prescribed all three medication classes, a significantly greater proportion than the 14.5% of patients in clinics receiving basic education who had been prescribed all three medications, meeting the trial's primary endpoint.

The difference was driven primarily by a large increase in prescriptions for SGLT2i and GLP-1RA drugs, researchers said. While prescriptions for those drugs rose in both study groups (likely due to a change of guidelines during the study), the increase was far greater in clinics that received the tailored intervention.

Researchers said the customized nature of the intervention and the use of multiple components, rather than just one, likely contributed to the intervention's success. They plan to make information about the

intervention broadly available so that it can be adopted and scaled across health care settings.

While the trial was not designed to assess clinical benefits, researchers said the increased adoption of guideline-recommended best practices may help patients better manage their chronic conditions for better health in the long run.

"As important as it is to develop new therapies, it is at least as important, if not more important, to focus on actually getting those therapies to the patients who need them," Pagidipati said. "This study proves that the prescription of these medications can be substantially improved, and we know that more use of these medications will prevent cardiovascular events. The next step will be disseminating these results."

Researchers plan to further analyze the data to assess trends in medication adherence, analyze variation between clinics and parse the impacts of individual components of the multifaceted intervention.

More information: Neha J. Pagidipati et al, Coordinated Care to Optimize Cardiovascular Preventive Therapies in Type 2 Diabetes, *JAMA* (2023). DOI: 10.1001/jama.2023.2854

Provided by American College of Cardiology