Letter from doctor boosts cholesterol medication use

November 15 2012

In a new study, Northwestern Medicine researchers found that patients at high risk for cardiovascular disease (CVD) are more likely to receive a prescription for cholesterol-lowering medication, and to achieve lower long-term cholesterol levels, when doctors use electronic health records (EHRs) to deliver personalized risk assessments via mail.

"It is important to get high priority preventive care messages to patients in a variety of ways," said Stephen Persell, MD, assistant professor of general internal medicine and geriatrics at Feinberg, and first author on the paper. "Sending a mailed message that depicts one's actual cardiovascular risk may lead some patients to action even though talking about treating cholesterol with their physician did not."

The paper was published in the Journal of General Internal Medicine.

CVD remains the number one cause of death globally, and is the leading cause of death for both men and women in the United States. High blood pressure, high LDL cholesterol and smoking are well-known key risk factors for heart disease, and about half of Americans (49 percent) have at least one of these three risk factors.

However, according to the study's authors, risk assessment is not performed often in primary care, and doctors may have inaccurate perceptions of patients' risks.

Persell and the Northwestern team believed the use of EHRs to

automatically identify candidates for risk-reducing interventions would result in better care delivered directly to patients. They enrolled 29 physicians and 435 eligible patients in the study, and assigned 14 physicians with 218 eligible patients to the test, or intervention, group.

"This is the first study that took a population-wide approach to identifying all patients who might benefit from this kind of an intervention in a primary care setting," said Persell. "Prior studies have only tried this kind of approach with select groups of patients."

Working with the Northwestern Medical Enterprise Data Warehouse, a sophisticated EHR data repository developed jointly by Northwestern University, Northwestern Memorial Hospital, and the Northwestern Memorial Faculty Foundation, researchers identified a pool of at-risk patients who were not being treated with cholesterol-lowering drugs.

Physicians in the test group received automated notification of these high-risk patients, who were then mailed personalized risk assessments. The assessments encouraged them to discuss risk-lowering options with their physicians.

Ultimately, those in the test group were twice as likely as the control group to receive a prescription for lipid-lowering medication, and after extended follow-up 18 months later, 22 percent had lowered their cholesterol significantly (by 30 mg/dl or more) vs. 16.1 percent of controls.

Though these tactics improved results compared to usual care with no follow-up messages, Persell believes there is still room for improvement.

"Many patients who had increased cardiovascular risk and got the risk message sent to them still did not get their cholesterol lowered. Future studies can examine if repeated exposure to these messages leads to

bigger changes over time," he said.

Persell said an ongoing study is currently testing whether a similar approach combined with telephone outreach can help patients in federally qualified community health centers control their cardiovascular disease risk.

Approaches like this can also be tested to speed adoption of the new preventive cardiology guidelines from the National Institutes of Health once the guidelines are released.

Feinberg's Donald Lloyd-Jones, MD, senior associate dean for clinical and translational research and chair of preventive medicine, and David Baker, chief of medicine-general internal medicine and geriatrics, were also co-authors on the study.

Provided by Northwestern University