

# Gatekeeper Tied to Poor CV Outcomes in Diabetes

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ATLANTA — The primary care gatekeeper model in which physicians have financial incentives to minimize specialist referrals was associated with poorer quality of care in a large study of cardiovascular outcomes in diabetic patients, Dr. Shaista Malik reported at the annual meeting of the American College of Cardiology.

In addition to examining the impact of financial incentives, the study also looked at the relationship between physician use of computerized clinical information systems (CIS) and cardiovascular outcomes. The investigators found that the more reliant a provider group was on CIS that promote care in accordance with national guidelines, the better the patients' cardiovascular outcomes, added Dr. Malik of the University of California, Irvine.

She presented an analysis from Translating Research Into Action for Diabetes (TRIAD), a large observational study involving adults with diabetes enrolled in managed care plans. Her analysis encompassed nearly 10,000 patients in six states, along with 57 primary care provider groups participating in 10 health plans. Data were obtained via highly detailed physician surveys, patient records, and administrative databases.

During the study period of 2000-2001, slightly more than half of the physicians functioned as gatekeepers, meaning they were paid more for fewer referrals to specialists.

In a multivariate analysis, their patients proved to be 55% more likely to be out of control with respect to LDL cholesterol levels (defined as LDL cholesterol level of 130 mg/dL or greater) than were patients of physicians who weren't being financially rewarded as gatekeepers.

Gatekeepers' diabetic patients were also an adjusted 25% more likely to have a systolic blood pressure of 140 mm Hg or above, and twice as likely to be hospitalized for heart failure, a cardiovascular end point that health policy analysts often use as a proxy for suboptimal care, Dr. Malik continued.

In contrast, physicians who were paid

extra for higher patient satisfaction and quality of care measures were 24% more likely to have patients on lipid-lowering therapy when warranted than were providers without such incentives.

Similarly, the compensated physicians' patients with a history of coronary heart disease were 30% more likely to be on a  $\beta$ -blocker and only half as likely to be hospitalized for heart failure, compared with patients whose physicians didn't have financial incentives aligned with

quality and patient satisfaction measures. "These data indirectly suggest that pay for performance may be an effective strategy," she said.

Patients whose physicians made extensive use of guideline-based clinical information systems had a 45% reduction in the relative risk of heart failure hospitalization, compared with the patients of physicians who made little or no use of these computer tools. The physicians using CIS also had patients with coronary heart disease

who were 41% more likely to be on a  $\beta$ -blocker. Moreover, cardiovascular mortality was 51% less in patients whose doctors relied on CIS.

Asked which components of the CIS correlated most strongly with favorable patient outcomes, Dr. Malik singled out electronic provider feedback. An example would be a computerized system that notifies the physician about patients who have an unacceptable LDL or blood pressure level. ■



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