More frequent office visits associated with improvements in risk factors for patients with diabetes

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Visiting a primary care clinician every two weeks was associated with greater control of blood glucose, blood pressure and cholesterol levels among patients with diabetes, according to a report in the September 26 issue of *Archives of Internal Medicine*.

Diabetes has become increasingly common in the United States and the world, according to background information in the article. Elevated levels of hemoglobin A1c (a measure of blood glucose levels and control over two to three months), blood pressure (BP), and low-density lipoprotein cholesterol (LDL-C) are associated with an increase in the risk of complications. Reducing the levels decreases those risks, but the article notes that most patients with diabetes do not have these levels under control. Currently, treatment guidelines do not include recommendations for how frequently physicians should see patients with diabetes, although recommended intervals for testing and adjustments to medication may range from every two to three days for insulin to every three months for hemoglobin A1c. "However," the authors write, "benefits of more frequent provider encounters may not be limited to treatment intensification and testing."

Fritha Morrison, M.P.H., from Brigham and Women's Hospital, Boston, and colleagues conducted a retrospective cohort study to determine whether more frequent encounters with a physician help patients improve control of diabetes. The authors analyzed data from 26,496

adult patients with diabetes and elevated hemoglobin A1c, BP and/or LDL-C levels who visited primary care physicians affiliated with two Boston hospitals for at least two years between January 2000 and January 2009. Treatment goals at the beginning of the study were hemoglobin A1c of less than 7 percent, BP of less than 130/85 mm Hg (millimeters of mercury) and LDL-C of less than 100 mg/dL (milligrams per deciliter). The researchers assessed the relationship between the frequency of clinician encounters (defined as notes in the medical record) and time to control of hemoglobin A1c, BP and LDL-C.

Among patients who had encounters with their physicians every one to two weeks, the median (midpoint) time to reaching the treatment goals was 4.4 months (without insulin) and 10.1 months (with insulin) for hemoglobin A1c, 1.3 months for BP and 5.1 months for LDL-C. Among patients who had physician encounters every three to six months, the median time to goal achievement was 24.9 months (without insulin) and 52.8 months (with insulin), 13.9 months and 32.8 months, respectively. When, after analysis, the time between physician encounters was doubled, the median time to reaching hemoglobin A1c goal increased 35 percent without insulin and 17 percent with insulin; for BP and LDL-C, these median times to goal increased 87 percent and 27 percent, respectively. As the physician encounter frequency increased up to once every two weeks for most goals, the time to control decreased progressively, consistent with the pharmacodynamics (the time course and effects of medications) for the respective classes of medication.

"The present findings provide evidence that for many patients with elevated hemoglobin A1c, BP, or LDL-C, more frequent patient-provider encounters were associated with a shorter time to treatment target, and control was fastest at two-week intervals," report the authors. They suggest that this interval may be appropriate for the most severely uncontrolled patients, but recognize that innovative approaches to achieve this frequency may be necessary because of the increasing

demand on health care resources. The authors add, "The retrospective nature of this study prevents us from establishing a causal relationship between encounter frequency and patient outcomes," and call for further research.

In an invited commentary, Allan H. Goroll, M.D., M.A.C.P., from Harvard Medical School and Massachusetts General Hospital, Boston, placed the findings by Morrison and colleagues in the context of the current health care environment. As health care reforms are implemented in the coming years, Goroll writes, "primary care physicians and their teams will turn increasingly to implementing best practices to maximize value. They will need to know what evidence-based actions produce the best results."

However, Goroll cautions, "before concluding that a physician visit every two weeks should be the standard of care" for patients who have diabetes and uncontrolled levels of hemoglobin A1c, BP and LDL-C, certain limitations of the research should be considered. For example, the study by Morrison et al was retrospective and did not evaluate the nature of the encounters with clinicians. Also, the encounters studied were limited to those with primary care physicians.

Still, the research provides additional information about how to balance volume, value and care outcomes, according to Goroll. For conditions such as diabetes, hypertension and hyperlipdemia, where evidence-based treatment can have an effect on illness and death rates, he writes, pay for performance may emerge as an important component of payment. "Understanding how best to deliver that care and change patient behavior, especially in primary care settings," concludes Goroll, "is going to be as important as knowing what care to prescribe." (Arch Intern Med. 2011;171[17]:1550-1551)

  More information: Arch Intern Med. 2011;171[17]:1542-1550.