

## Relationship of Intensity of Diabetes Disease Management Programs and Quality of Care

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The full report is titled “The Association between Quality of Care and the Intensity of Diabetes Disease Management Programs.” It is in the 18 July 2006 issue of *Annals of Internal Medicine* (volume 145, pages 107-116). The authors are C.M. Mangione, R.B. Gerzoff, D.F. Williamson, W.N. Steers, E.A. Kerr, A.F. Brown, B.E. Waitzfelder, D.G. Marrero, R.A. Dudley, C. Kim, W. Herman, T.J. Thompson, M.M. Safford, and J.V. Selby, for the TRIAD Study Group.

### What is the problem and what is known about it so far?

Diabetes mellitus is a common disease that interferes with the body’s ability to store energy from food. The result is high blood sugar levels. Over time, high blood sugar levels can lead to blindness, kidney failure, nerve damage, and heart disease. Fortunately, good care with diet, exercise, and medications to keep blood sugar, blood pressure, and cholesterol under control can prevent the development of these complications.

Because it is possible to accomplish so much with good diabetes care, it is important to know about strategies that doctors and health care organizations can use to improve care. Disease management programs use a variety of strategies to encourage recommended tests and treatments. These strategies include reminders to doctors and patients, regular reports to doctors about the care they provide, and structured care management (structured care management refers to nurses or other health care providers helping patients manage diabetes issues between doctor visits). Although diabetes disease management programs are becoming more common, we don’t know much about whether they actually improve care.

### Why did the researchers do this particular study?

To see whether there was a relationship between the quality of diabetes care that patients receive and the diabetes disease management programs their physicians use.

### Who was studied?

8661 patients with diabetes who were participating in a large study of diabetes care. The patients received care from physicians or physician groups within 10 health plans in 7 states.

### How was the study done?

The researchers surveyed the directors of the physician groups and health plans to learn about their use of diabetes-related disease management programs, such as physician reminders, feedback of data on physician performance, and structured care management. They used this information to classify the intensity of the disease management programs. The researchers also surveyed patients and reviewed medical records to collect information on patients and their diabetes care. The researchers then determined whether more intense diabetes care management was related to better-quality diabetes care.

### What did the researchers find?

Use of any of the 3 types of disease management strategies was associated with higher rates of recommended examinations (eye and foot) and laboratory testing for kidney function and diabetes control. Patients seen in settings that used performance feedback and structural care management were more likely to have cholesterol tests and influenza vaccination than patients in settings that did not use these strategies. However, none of the strategies were related to good medication management or to better sugar, blood pressure, or cholesterol levels.

### What were the limitations of the study?

The measures of disease management programs were based on what the directors and plans said the groups did, not on whether these strategies were actually applied to the specific patients studied.

### What are the implications of the study?

The disease management strategies currently in use for diabetes care were related to better processes of care (examination and testing) but not to better medication management or disease control.

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