

VA System Superior for Diabetes Care

No previous studies compared the quality of care delivered in the VA system with that of managed care.

REVIEWED BY EVE KERR, MD, MPH

Diabetic patients in the Veterans Affairs health care system are more likely to receive recommended tests and have better outcomes than patients in traditional managed care.

According to a study from the University of Michigan Medical School, in 1995 the VA instituted a series of improvements to quality of care that focused specifically on managing chronic disease, one of which was diabetes.

Many of the changes reflected recommendations promoted by the Institute of Medicine and treatment standards such as monitoring, electronic medical records, disease management programs, patient reminders and automated feedback to doctors regarding quality of care, according to a news release.

EXCELLENT QUALITY OF CARE

"A nationally funded health care system can provide excellent quality of care," said lead author Eve Kerr, MD, MPH, a research scientist at the VA Ann Arbor Health-care System. The VA has instituted system-wide standards, integrated care and a way to track and monitor how their patients are doing. Other organizations can

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learn from the VA and how they achieved their quality improvements over the last 10 years."

The study, reported in the *Annals of Internal Medicine*, was a cross-sectional patient survey with a retrospective medical record review. The investigators compared 8,205 diabetic patients, 1,285 in the VA system and 6,920 in commercial managed care. Scores were compared for patients based on identically specified quality measures of seven diabetes care processes, three intermediate diabetes outcomes and four dimensions of satisfaction. These scores were expressed as the percentage of patients receiving indicated care and then adjusted for demographic and health characteristics.

STANDARD RECOMMENDED TESTS

The seven standard recommended tests or services were eye exam, HbA1c test, cholesterol screening, foot exam, urine analysis, counseling on aspirin use and a flu vaccine. Patients were also evaluated to see if they had acceptable levels of blood pressure, cholesterol and HbA1c.

The data were collected as part of a collaborative effort between the Centers for Disease Control and Prevention and the VA Research Service called Translating Research into Action for Diabetes (TRIAD) (Table 1).

Dr. Kerr and colleagues found that VA patients had better levels of HbA1c and cholesterol, while blood pressure levels were the same in both groups (Table 2).

Generally speaking, there were few differences in satisfaction with care between the VA and commercial care patients, however patients in the VA system were slightly more satisfied with the overall quality of diabetes care (Table 3).

"These results are encouraging because they demon-

TABLE 1. RESULTS OF TRIAD

- 93% of VA patients had an annual HbA1c test versus 83% of managed care patients
- 75% of VA patients were counseled about aspirin use versus 49% of managed care patients
- 91% of VA patients had an annual eye exam versus 75% of managed care patients
- 98% of VA patients had an annual foot exam versus 84% of managed care patients

TABLE 2. QUALITY OF CARE RATES FOR VA AND COMMERCIAL MANAGED CARE PATIENTS

Quality-of-Care Measure (Data Source)	VA Rate (95% CI) (n = 1273), %	CMC Rate (95% CI) (n = 6901), %	P Value
Processes of care			
Annual eye examination (hybrid)	91 (87–93)	75 (69–80)	<0.001
Eye examination (medical record)	57 (38–75)	28 (16–46)	0.03
Eye examination (survey)	88 (84–92)	72 (67–77)	<0.001
Annual hemoglobin A _{1c} test	93 (89–96)	83 (76–87)	0.005
Annual lipid screening	79 (69–86)	63 (51–73)	0.02
Annual foot examination (hybrid)	98 (96–99)	84 (79–88)	<0.001
Foot examination (medical record)	67 (80–91)	50 (40–60)	<0.001
Foot examination (survey)	92 (88–95)	76 (69–82)	<0.001
Annual proteinuria screening	92 (89–95)	81 (75–86)	0.005
Aspirin use counseling	75 (69–79)	49 (44–53)	<0.001
Influenza vaccination	72 (66–77)	64 (60–68)	0.04
Intermediate outcomes			
Blood pressure < 140/90 mm Hg	53 (46–60) (1222 patients)	52 (47–57) (6161 patients)	>0.2
Blood pressure < 130/85 mm Hg	29 (23–35) (1222 patients)	29 (25–34) (6161 patients)	>0.2
Hemoglobin A _{1c} value < 9.5%	92 (87–95) (1173 patients)	80 (72–86) (5769 patients)	0.006
Hemoglobin A _{1c} value < 8.5%	83 (75–89) (1173 patients)	65 (54–75) (5769 patients)	0.009
LDL cholesterol level < 3.37 mmol/L (<130 mg/dL)	86 (81–90) (995 patients)	72 (68–76) (4398 patients)	0.002
LDL cholesterol level < 2.59 mmol/L (<100 mg/dL)	52 (45–59) (995 patients)	36 (32–40) (4398 patients)	0.003

* Higher rates represent higher quality. Models are adjusted for all covariates reported in Table 2 except for sex and date of survey administration. CMC = commercial managed care; LDL = low-density lipoprotein; VA = Veterans Affairs.

Source: Kerr EA, et al. *Ann Int Med*. 2004;141:272-81.

TABLE 3. SATISFACTION SCORES FOR VA AND COMMERCIAL MANAGED CARE PATIENTS

Satisfaction Measure	VA Group		CMC Group		P Value
	Participants, n	Score (95% CI)	Participants, n	Score (95% CI)	
Getting needed care	1165	5.5 (5.4–5.6)	5973	5.6 (5.5–5.7)	0.07
Courteous and helpful office staff	1180	5.3 (5.2–5.5)	6026	5.4 (5.3–5.5)	>0.2
How well doctors communicate	1177	10.5 (10.3–10.8)	5990	10.5 (10.3–10.6)	>0.2
Overall quality of diabetes care	1260	4.1 (3.9–4.2)	6312	3.8 (3.8–3.9)	0.02

* Higher scores represent higher satisfaction. Models are adjusted for all covariates reported in Table 2 except for sex and date of survey administration. CMC = commercial managed care; VA = Veterans Affairs.

Source: Kerr EA, et al. *Ann Int Med*. 2004;141:272-81.

strate that optimizing how care is delivered can translate into clinical benefits for patients. However, we still need to learn more about which of the many changes the VA instituted improve quality the most, so that managed care health plans can implement these in the most cost-effective manner," said co-author Carol M. Mangione, MD, MSPH, professor of medicine at the David Geffen School of Medicine at UCLA.

INVESTMENTS NEEDED FOR IMPROVEMENT

If commercial managed care plans are going to achieve the same level of care for patients with diabetes as the VA system, they may need to make investments in several areas of clinical care, the researchers said, such as structure, information technology, care integration, performance monitoring and payment incentives. "Comparing the costs of diabetes care in the VA system with those in commercial plans may also help elucidate the value of such investments," the investigators wrote.

The VA's national system makes it easier to institute sweeping changes and to monitor whether those changes are making a difference in how patients get care, whereas managed care organizations are working individually with fewer resources and often must implement change one step at a time, the authors suggested.

"Further research should examine how specific organizational factors are associated with better quality, examine the intensity of treatment of intermediate outcomes and assess which organizational factors can improve treatment of intermediate outcomes and reduce end-stage diabetes complications," Dr. Kerr said. ■

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Kerr EA, Gerzoff RB, Krein SL, et al. Diabetes care quality in the Veterans Affairs Health Care System and commercial managed care: The TRIAD Study. *Ann Int Med*. 2004;141:272-1281.