

Differences in Diabetes Care Across Specialties

Chin MH, Zhang JX, Merrell K. *Specialty differences in the care of older patients with diabetes. Med Care* 2000;38:131-40.

Study Overview

Objective. To determine differences in health status, quality of care, and resource utilization among older diabetic Medicare patients cared for by endocrinologists, internists, family practitioners, and generalists.

Design. Retrospective data analysis using Medicare claims.

Setting and participants. 1637 patients with diabetes aged 65 years or older in the 1994 Medicare Current Beneficiary Survey, a database that links patient surveys to 12 months of Medicare claims data.

Main outcome measures. Measures of morbidity were Basic and Instrumental Activities of Daily Living, health perception, Charlson Comorbidity Index score, and diabetic complications. Quality of care markers were ophthalmologic visits, lipid testing, glycosylated hemoglobin measurement, mammography, influenza vaccination, early hospital readmission, outpatient follow-up, and patient satisfaction. Resource utilization measures included reimbursement, relative value units, physician and emergency department visits, and hospitalizations. Age, gender, race, and education were adjusted for in multivariable analyses.

Main results. Compared with patients of family practitioners, patients of endocrinologists and internists had more comorbidity and diabetic complications but similar health perception and deficiencies in activities of daily living. Patients of endocrinologists also had higher utilization of ophthalmologic screening, lipid testing, and glycosylated hemoglobin measurement than patients of generalists; rates of influenza vaccination were similar between groups. Patients of endocrinologists and internists had higher total reimbursement than those of family practitioners and generalists. Patient satisfaction was generally similar across specialties.

Conclusion

Endocrinologists provided higher-quality care based on utilization of diabetes-specific process of care measures, and their patients had functional status similar to other study patients despite more diabetic complications. However, care

provided by endocrinologists was more costly than that provided by family practitioners.

Commentary

This study presents the most thorough analysis of practice-pattern differences in the care of older patients with diabetes to date. Yet, as the authors acknowledge, these analyses are plagued by important methodologic issues relating to the causation and directionality of variable relationships, which are inherent to retrospective claims data analyses. One such limitation is the inability to control for potentially important confounding variables such as patient self-selection bias; that is, a patient's preference for a more or less aggressive style of care would preferentially select the type of provider that met his or her expectations.

This study adds to the literature showing that specialists use more resources and adhere to process-of-care guidelines more closely than generalists. Future research should examine the clinical significance of this finding by evaluating the impact of practice-pattern differences on outcomes in diabetes patients. This study also highlights the need for primary care physicians to use a disease management approach when caring for diabetes patients. However, we must keep in mind that improving the outcome of care in diabetes patients, and not just the process of care, requires a comprehensive, multidisciplinary approach that goes beyond improving the care delivered by nonspecialists [1].

Applications for Clinical Practice

The management of older diabetes patients requires a comprehensive, system-wide approach that involves primary care physicians, patients, and health care insurance plans. At the very least, more education, communication, and accountability are required at all levels to improve the process of care, and more research is needed to assess how different processes of care affect patient outcomes.

Reference

1. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. The Diabetes Control and Complications Trial Research Group. *N Engl J Med* 1993;329:977-86.

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