## RESEARCH LETTER

# Multidisciplinary Team Approach to Improved Chronic Care Management for Diabetic Patients in an Urban Safety Net Ambulatory Care Clinic

Hazel Tapp, PhD, Shay E. Phillips, PharmD, Dael Waxman, MD, Matthew Alexander, PhD, Rhett Brown, MD, and Mary Hall, MD

Since the care of patients with multiple chronic diseases such as diabetes and depression accounts for the majority of health care costs, effective team approaches to managing such complex care in primary care are needed, particularly since psychosocial and physical disorders coexist. Uncontrolled diabetes is a leading health risk for morbidity, disability and premature mortality with between 18-31% of patients also having undiagnosed or undertreated depression. Here we describe a team driven approach that initially focused on patients with poorly controlled diabetes (A1c > 9) that took place at a family medicare office. The team included: resident and faculty physicians, a pharmacist, social worker, nurses, behavioral medicine interns, office scheduler, and an information technologist. The team developed immediate integrative care for diabetic patients during routine office visits. (J Am Board Fam Med 2012;25:245–246.)

Keywords: Comorbidity, Diabetes Mellitus, Family Medicine Research, Health Care Team, Social Problems

Because the care of patients with multiple chronic diseases such as diabetes and depression accounts for the majority of health care costs, team approaches that are effective in managing such complex cases in primary care are needed, particularly because psychosocial and physical disorders coexist. 1-3 The recent implementation of the Patient Protection and Affordable Care Act helps bring conscientiousness about the importance of increased collaboration and teamwork in chronic disease management, particularly in primary care, where workforce shortages are increasing rapidly.<sup>4</sup>

Here we describe a multidisciplinary team approach focusing on patients with poorly controlled diabetes. The work began in Charlotte, North Carolina in October 2009 in a primary care residency teaching practice, one of 5 community clinics within Carolinas HealthCare System that serve the majority of the community's underserved patients. A majority of visits are for uninsured patients or patients receiving Medicaid/Medicare. A coordinating team developed a system of immediate integrated care services for diabetic patients during routine office visits.

Our aims were to identify and treat patients with poorly controlled diabetes who have comorbid depression, determine barriers to care, facilitate better self-management techniques, and provide closer monitoring and timely medication changes to improve diabetes and other comorbidities. Measurable goals included improving diabetic outcomes and sustaining National Committee of Quality Assurance certification. The team consists of physicians and nurses, behavioral medicine interns, pharmacists, social workers, and information technology (IT) specialists and office schedulers.

This article was externally peer reviewed. Submitted 13 April 2011; revised 8 August 2011; accepted

22 August 2011.

From the Department of Family Medicine, Carolinas Healthcare System, Charlotte, NC (HT, SP, DW, MA, RB); and the Division of Medical Education, Carolinas Healthcare System, Charlotte, NC (MH).

Funding: none.

Conflict of interest: none declared. Corresponding author: Hazel Tapp, PhD, Department of Family Medicine, Carolinas Healthcare System, 2001 Vail Avenue, Charlotte, NC 28207 (E-mail: hazel.tapp@ carolinashealthcare.org).

## **Physicians and Nurses**

Providers assess diabetic patients, provide overall management, and offer onsite referrals to behavioral medicine interns and clinical pharmacists.

### **Behavioral Medicine Interns**

During the patients' office visits, all patients with A1c levels >9% were identified by the physician or nurse. To determine if depression is a comorbidity, behavioral medicine interns administered a depression screen using the 9-item Patient Health Questionnaire.<sup>5</sup> If antidepressant medication was warranted, patients were comanaged with their physician that day. For patients with a negative screen, the interns used techniques such as motivational interviewing and shared decision making to assist the patient in self-management goal setting to improve health behaviors.

#### **Pharmacists**

A pharmacist provided same-day or scheduled educational sessions tailored to individual patient needs, and included a review of one or more of the following topics: patient-identified barriers to care; blood glucose monitoring frequency and goals; lifestyle modification goals; medication adherence; recognition and appropriate correction of hypoglycemia; the effects of diet, exercise, and medications on glycemic control; and micro-/macrovascular complications. Medication regimens were adjusted every 1 to 4 weeks based on self-monitoring blood glucose trends, food diaries, and patient goals.

#### **Social Workers**

A full-time licensed social worker was available to offer assistance with medication access, transportation issues, food referrals, and cost of living subsidies.

## **IT Specialists and Office Schedulers**

An IT support person was available to the coordinating team of this project to assist with population management through reports developed from the electronic medical record. Office schedulers used

diabetes reports to identify and contact patients who had not had an office visit for diabetes in more than 6 months. Additional reports identified our targeted population of patients with diabetes and  $A1c \ge 9\%$ .

A representative from each team discussed project status at weekly team meetings scheduled in the primary care office. Project status also was shared with all staff members at monthly quality improvement meetings. We measured our progress through monthly review of diabetic outcome measures contained in population management reports generated from the hospital's electronic medical record.

#### Conclusion

Creation of a multidisciplinary team approach to treating patients with diabetes has facilitated our journey toward enhancing our vision of patient-centered care. As a result of this endeavor, our practice has received recognition from National Committee of Quality Assurance for both the Diabetes Prevention Program and as a patient centered medical home (level 3).

#### References

- 1. Katon WJ, Lin EH, Von Korff M, et al. Collaborative care for patients with depression and chronic illnesses. N Engl J Med 2011;363:2611–20.
- 2. Schneider KM, O'Donnell BE, Dean D. Prevalence of multiple chronic conditions in the United States' Medicare population. Health Qual Life Outcomes 2009;7:82.
- 3. Bodenheimer T, Berry-Millet R. Care management of patients with complex health care needs: research syntheses report. Princeton, NJ: Robert Wood Johnson Foundation; 2009.
- 4. Josiah Macy Jr Foundation, ABIM Foundation, Robert Wood Johnson Foundation. Team-based competencies: building a shared foundation for education and clinical practice. Conference proceedings, February 16–17, 2011, Washington, D.C. Available at http://www.aacn.nche.edu/education-resources/IPECProceedings.pdf. Accessed August 8, 2011.
- Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med 2001;16:606–13.