

The Business of Hospital Care of Diabetic Patients:

1. Is It Time to Reconsider the Model for Educational Services?

Steven B. Leichter, MD, FACP, FACE

Many of the specialty concepts and models for rendering hospital care to diabetic patients were derived during the 1980s.¹ The use of the hospital, goals for care, and parameters for judging the care of diabetic patients were much different then than now. Since that time, increases in hospital costs, changes in patterns of payment, and denial of benefits except for certain diagnoses have altered the hospitalized population to a patient group with a much higher acuity.² Furthermore, these changes have also resulted in reduced lengths of stay for such patients. Therefore, the available time to teach and provide support services to diabetic patients in the hospital is much shorter than it used to be and often nonexistent.

In 1982, a group of experts from the National Diabetes Advisory Board (NDAB) defined guidelines for programs that render educational services to hospitalized diabetic patients.^{3,4} The NDAB was a board established to advise Congress about the implementation of legislated initiatives in diabetes research and care.⁵ These guidelines were adopted by the American Diabetes Association (ADA) and implemented as its Education Recognition Program (ERP).⁶ Although the guidelines have been modified over the years, the model for an adequate program as originally suggested by the NDAB remains the same, and, as proposed 20 years ago, is applied in both outpatient and inpatient hospital settings.

Whether this model remains applicable to the inpatient setting should now be considered in view of the aforementioned

changes in inpatient care. A model that cannot be applied practically and that may affect hospitals negatively both in terms of care approach and cost clearly should be modified to fit the current circumstances. The imposition of an unfeasible model will only discourage institutional interest in pursuing the development of positive inpatient diabetes care programs.

The Derivation of the ERP

The original effort to define and promulgate a model for diabetes patient education programs was stimulated by one primary concern: the lack of insurance reimbursement for diabetes education. Before the ERP, there was a severe lack of organized services in health care institutions, especially hospitals, to meet the valid special needs of diabetic patients.⁷ One reason for this situation was a lack of dedicated insurance support for such activity.¹

Health care organizations refused to provide such services unless insurance support was forthcoming. This task was referred to diabetes advocacy groups, such as New Jersey's State Diabetes Advisory Board.⁸ However, efforts to induce insurance companies to pay for these services were met with frustration: insurance companies requested definitive proof that diabetes patient education would reduce long-term cost risks of diabetic patients before agreeing to support such education. There was no substantial prospect that such a study would be funded or carried out.

To address this apparently insoluble situation, the NDAB suggested that a nationally viable diabetes organization

such as the ADA support a program in which patient education programs of reasonable quality would be awarded an official "seal of approval."^{3,4} Institutions with such programs could then market them to their service community in hopes that public recognition of this achievement would alter patient flow from competing institutions to those whose programs were officially recognized. Because diabetic patients represent a significant target population for health organizations and hospitals,⁷ the concept was that such recognition could give these organizations a competitive advantage in their service areas. Then, the health organizations, and not diabetes advocacy groups, would seek funding for such programs.

Current State of Education Recognition

The ERP has fulfilled its initial goals more completely than the originators ever believed would occur. Each state now has many locations that offer recognized diabetes patient education programs.⁵ Both the number of applications for recognition and the number of programs achieving recognition have continued to grow. In Kentucky, for example, the state in which the idea for recognition originated, there are now 45 recognized programs.⁵ When the ERP was conceived in 1982, Kentucky had only one institution with a formal diabetes education program.⁷

Although there have been no widespread changes in insurance coverage for inpatient diabetes education, changes have occurred for outpatient programs. Perhaps the most significant change has

been the development of guidelines for payment of outpatient education by Medicare, based on the ADA recognition process.⁹ These guidelines permit reimbursement for outpatient diabetes education for programs that have achieved ADA recognition.

The State of Inpatient Diabetes Education

Unfortunately, these developments have made the current education model less and less relevant to inpatient diabetes services over time. When the original guidelines for recognition were drafted, the perspective of the NDAB was that the educational model applied equally to inpatient and outpatient settings. This was because, at that time, hospital lengths of stay for diabetes were unrestricted. Health professionals viewed the hospital environment as a controlled setting in which patients could have an intensive course of instruction over a number of days.

Of course, this situation no longer exists. Inpatient lengths of stay have been restricted¹⁰ and meaningful, complete educational programs, as called for in the ERP guidelines,⁵ can no longer be delivered in that environment. For most institutions, delivering a complete package of services is not practical. Nevertheless, the ERP guidelines remain the only accepted model for inpatient diabetes support services available.

Defining Needs

There are few data available to describe the inpatient population of diabetic Americans today or to characterize their service needs. Studies from other English-speaking nations must be considered in order to draw some picture of the American population. A very recent Canadian study¹¹ clearly shows that dia-

betic inpatients are more likely to have lower annual incomes. Studies in specific groups of diabetic patients, such as patients with type 1 diabetes, demonstrate that the majority of recurrent admissions come from a minority of the patient group.^{12,13} These studies confirm earlier reported experiences in the United States.¹⁴

These characteristics of many hospitalized diabetic patients suggest that the inpatient population may have common, specific service requirements that have not yet been described. Because many admissions involve patients with lower income levels and those who have had previous admissions, services may need to couple case management with specific, targeted educational modalities. Educational topics may be identified in the initial evaluation process as those aspects of care that are related to the reasons for recurrent hospital admission. Psychosocial support and other case management functions may be at least as relevant as patient education to these support services.

Developing a Model

This perspective suggests that the guidelines for diabetes support services, as outlined in the ADA's ERP, may not be relevant to the current needs of hospitalized diabetic patients. If these standards are not relevant, no other relevant model exists for inpatient support services. If, as the previously mentioned studies suggest, the population of hospitalized diabetic patients includes the most challenging cases, then the derivation of a distinct model for support services in the inpatient environment may be necessary.

REFERENCES

¹Leichter SB: Diabetes patient education in hospital settings. *Diabetes Educ* 12:277-280, 1986

²Leichter SB: The silent standards in diabetes care: Millman & Robertson. *Clinical Diabetes* 18:140-142, 2000

³National Diabetes Advisory Board: National consensus standards on diabetes patient education programs. Atlanta, Ga., Centers for Disease Control and Prevention, 1983

⁴Leichter SB, Allweiss P: National consensus standards for diabetes patient education programs: a first step in solving an important puzzle. *Arch Intern Med* 144:1137-1138, 1984

⁵National Institute of Diabetes and Digestive and Kidney Diseases: NIDDK legislative chronology, National Institutes of Health, 1998 Almanac available online at www.nih.gov/about/almanac/1998/organization/niddk/legislative.html

⁶American Diabetes Association: Recognition Program Guidelines, 2003. Available online at www.diabetes.org/education/eduprogram.asp

⁷Leichter SB, Hernandez C, Fisher A, Collins P, Courtney A: Diabetes in Kentucky. *Diabetes Care* 5:5126-5134, 1982

⁸Proceedings of the 5th Annual Diabetes Control Conference. Atlanta, Ga., Centers for Disease Control and Prevention, 1982

⁹US Department of Health and Human Services. Health information: Diabetes. Medicare: The Official US Government Site for People With Medicare. Online at www.medicare.gov/health/diabetes.asp, 2003

¹⁰Aubert RE, Geiss LS, Ballard DJ, Cocanmougher B, Herman WH: Diabetes-related hospitalization and hospital utilization. In *Diabetes in America*. 2nd Ed. Harris MI, Cowie CC, Stern MP, Boyko EJ, Reiber GE, Bennett PH, Eds. Bethesda, Md., National Institutes of Health, (NIH Publication No. 95-1468), 1995, p. 553-569

¹¹Booth JL, Hux JE: Relationships between avoidable hospitalizations for diabetes mellitus and income level. *Arch Intern Med* 163:101-106, 2003

¹²Skinner TC: Recurrent diabetic ketoacidosis: causes, prevention, and management. *Horm Res* 57 (Suppl. 1):78-80, 2002

¹³Tattersall R, Gregory R, Selby C, Kerr D, Heller S: Course of brittle diabetes: 12 year follow-up. *BMJ* 302:1240-1243, 1991

¹⁴Fulop M: Recurrent diabetic ketoacidosis. *Am J Med* 78:54-60, 1985

Steven B. Leichter, MD, FACP, FACE, is co-director of the Columbus Research Foundation in Columbus, Ga., and a professor of medicine at Mercer University School of Medicine in Macon, Ga.