

# The Complexity of Diabetes Care

Belinda P. Childs, ARNP, MN, CDE, BC-ADM, Editor

How do people who live with diabetes day in and day out manage the increasing complexity of the disease? For that matter, how do health professionals keep up with the ever-changing world of diabetes care? As an advanced practice diabetes nurse specialist, I am sometimes overwhelmed by the complexity of diabetes care. I collaborate with patients approximately 180 days a year, 12–15 individual appointments each day. Not only the treatment options, but also the day-to-day lives of our patients are complex.

What a stimulating time to be involved in diabetes care! We have had two first-in-class medications approved by the Food and Drug Administration in the past 6 months. Others are on the way. In the past 10 years, multiple new oral agents, combination medications, and new insulin analogs have come to market. We now understand the importance of managing hyperglycemia in the hospital. We have substantial evidence that the management of hypertension and lipids will reduce mortality and morbidity. There are multiple options available to treat blood pressure and lipids, including several combination medications. We have more data available from our glucose monitoring devices. There is more sophisticated insulin pump technology. And glucose sensors are on the horizon.

But how do we keep up with these advances? How do we continue to educate and collaborate with primary care providers and other health care practitioners? How do we help them make sense of all the new medications and treatment advances? How do we help them implement the standards of care? Quite frankly, there are days I

am not sure what the right answers are for such complex problems. Thankfully, I work in a collaborative environment.

What about the individuals who live with the disease? Today, a person with type 1 diabetes may well be on an insulin pump, have three or four injections of pramlintide, check blood glucose levels seven times a day, calculate every carbohydrate or calorie ingested, and adjust insulin doses to cover daily exercise. This individual also may well be taking an aspirin, an ACE inhibitor, and a statin. Research would indicate that this individual's medical outcome is going to be better than that of another individual who has had diabetes for  $\geq 25$  years and who took one or two daily injections, checked urine for glucose, and followed a meal plan. But where did the former individual acquire the skills and problem-solving abilities necessary to manage the far more complex regimen?

In a study of trends in the complexity of diabetes care in the primary care setting between 1991 and 2000,<sup>1</sup> it was noted that the number of patients listing five or more medications increased from 18.2 to 29.9%. The medication increases were related to treatment of blood pressure and lipids and to the use of oral antihyperglycemic agents. Interestingly, insulin use decreased from 25.3% in 1991 to 15.3% in 2000. Yet with this increase in the number of medications taken, the proportion of medical visits lasting  $> 20$  minutes increased only from 17.8% in 1991 to 20.9% in 2000. Three percent of patients were given visits  $> 20$  minutes to explain the ever-increasing complexity of the medical regimen. Think of all the

additional complexities that we have added to our treatment options in the 5 years since this study.

In addition, studies such as the Diabetes Prevention Program<sup>2</sup> are showing that diabetes can be prevented with lifestyle changes. To facilitate this outcome, individuals at risk are going to need coaching and education to carry out the necessary behavioral changes.

As the complexity of diabetes regimen and our understanding of disease prevention both increase, what is happening to our diabetes education programs and diabetes educators? In a recent editorial titled "The New Enemy,"<sup>3</sup> Irl Hirsch, MD, identified the new enemy as health care administrators and noted that "the bottom line dictates that financial success always will trump patient care." Hirsch asserted that if an administrator is faced with the choice of either opening a bariatric surgery center or continuing or enhancing a diabetes education program, the administrator will likely choose the more profitable procedure-driven center.

Unfortunately, we have seen this first hand in our community in Wichita, Kans. A longstanding multidisciplinary team has been reduced from a staff of six 15 months ago to a staff of two doing modular diabetes education. This program has a national reputation and has served  $> 1,000$  patients a year for the past 25 years.

Three of my family members attended this education program and believe that it empowered them to live a long life with diabetes. My brother, who has had diabetes for 27 years without complications, is a testament to the personal importance of this program. Management of diabetes

was not nearly as complex 27 years ago, but the message of empowerment he heard then has lasted a lifetime. His is only one of many testimonials; he stands for many across the country who have had an opportunity to work with a diabetes education program, diabetes team, or diabetes educator.

So how do we survive the downsizing? How do we survive the increasing complexity, both for individuals with diabetes and for those of us who work with them?

**We need to take care of ourselves.** We need to prevent provider burnout. In today's diabetes care environment, it is easy to feel hopeless and helpless. Cindy Hanson, PhD, contributed an excellent chapter titled "Understanding and Treating Provider Burnout"<sup>4</sup> in the book *Practical Psychology for Diabetes Clinicians*. Provider burnout saps our ability to be creative, empathetic, and supportive for our patients and colleagues.

**We should continue to look for ways to work more efficiently.** We need to look at our individual clinic systems. Are we managing our time efficiently? Look at the layout of our clinics and education facilities. Is our documentation streamlined? Are electronic records an option? Can initiation of a new medication be done in a group? Are we billing for *all* billable services? Have we reviewed all of our resources for income (i.e., pharmaceutical foundations, research opportunities)?

**We must continue to advocate for our diabetes education programs and diabetes educators.** I have had the good fortune to work with a dedicated group of health professionals who have never said it could not be done. We left one health care setting 20 years ago when we were told the "team" cost too much. We re-created the program. And we will do it again. The mission has been and will be to empower individuals with diabetes to manage their diabetes. Educating the next generation of health care providers also is a priority, and we will continue to provide educational opportunities for medical residents and students, nurses, physicians' assistants, and pharmacists.

**We must continue to advocate for fair reimbursement for diabetes care, prevention, and education services.** No one health care provider or diabetes educator alone can help patients navigate through the complexity of diabetes care. It will take a team, and the team must be fairly reimbursed. Diabetes care and education is not a business with big profit margins, but, if done efficiently, it can be a break-even financial endeavor. Certainly, the value in reduced mortality, morbidity, and quality of life is enormous.

**Most of all, we need to continue to look for creative ways to support the individuals who live with diabetes who are managing these complex regimens.**

We must identify ways to prevent their burnout. William Polonsky, PhD,<sup>5</sup> has presented ways to identify burnout and reduce the distress often seen in patients with diabetes who have become overwhelmed with the complex nature of living with this disease.

*"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."*

—Margaret Mead<sup>6</sup>

## References

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- <sup>3</sup>Hirsch IB: The new enemy. *DOC News* 2:3, 2005
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