A Look Back . . . and Forward

Jennifer B. Marks, MD, FACP, FACE, CDE, Editor

I began as editor-in-chief of *Clinical Diabetes* with the first issue of 2003. As I move toward the end of my term, I reflect on various key topics that have come to the forefront in the world of diabetes since then, many of which we have brought to you through these pages. Because this will be the last issue for me and my associate editors, it seems appropriate now to revisit some of the topics that are still relevant, issues that will undoubtedly continue to affect diabetes care in the future.

Diabetes in the United States and around the world has reached epidemic proportions, and the numbers are expected to continue to rise. It has been projected that one in three Americans born in 2000 will develop diabetes.[1] Worldwide, there were 194 million adults with diabetes in 2003, and this number is expected to reach 333 million by 2025, with many cases arising in poorer, developing countries.[2]

A rise in obesity rates during the past decade is to blame for much of the increase in type 2 diabetes. Today, nearly two-thirds of American adults are overweight or obese.[3] In 2005, the American Diabetes Association (ADA), the North American Association for the Study of Obesity (NAASO), and the American Society for Clinical Nutrition (ASCN) jointly published a position statement emphasizing the importance of lifestyle modification in weight management for both the prevention and treatment of type 2 diabetes.[4] This effort was directed at making weight management a priority

in health care to reverse the epidemics of obesity, diabetes, and cardiovascular disease (CVD). The ADA, NAASO, ASCN, and other like-minded health care organizations need to expand their joint efforts not only to better educate both health professionals and the public, but also to influence public health policy regarding obesity prevention and treatment.

The epidemics of obesity and diabetes have not spared our nation's youth. Type 2 diabetes has become increasingly common among children aged 6–11 years and adolescents aged 12–19 years. This increase has emerged in tandem with an alarming rise in the number of young people who have become overweight or obese.[5] Along with family history, obesity stands out as a prominent risk factor for the development of type 2 diabetes. During the past 20 years, the prevalence of childhood and adolescent obesity has doubled, and without increased measures for prevention, these numbers will likely continue to rise.[6] Although children and adolescents representing all racial, ethnic, and socioeconomic groups have been affected by this trend, Native Americans, Hispanic Americans, and African Americans are particularly susceptible to the epidemic of obesity.[5,7]

This emergence of type 2 diabetes in childhood and adolescence is ominous, especially when one considers the long-term public health and societal impact as these patients begin to develop chronic complications, potentially at a very young age. More needs to be done. Clinical trial research has demonstrated that losing weight and increasing physical activity can delay the onset of diabetes in individuals at high risk.[8] Translating the results of such trials to real-world practices, however, remains a great challenge. Primary prevention of diabetes is the goal that must be achieved to prevent the economic and health burden associated with the chronic complications of diabetes, including, most importantly, (CVD).

The quality of diabetes care in the United States between 1988 and 1995 did not reach accepted guidelines, according to a study reviewed in 2003.[9,10] Data from this study showed that during this time period, a gap existed between recommended diabetes care and the care that patients actually received, with only 28.8% of individuals with diabetes reporting having had a hemoglobin A_{1c} (A1C) measurement, 63.3% a dilated eye exam, and 54.8% a foot exam within the previous year. Eighteen percent of these diabetic individuals had an A1C > 9.5%. One hopes that such a disappointing report will lead to a reexamination of diabetes care in this country and serve as a stimulus to future improvement.

CVD is today the leading cause of death in American women.[11] Women with diabetes are at especially high risk for CVD, and that risk has been rising during the past 2 decades. Yet, men and women still receive different treatment. Modifiable risk factors for CVD are simply treated less aggressively in women. It is time for health care providers to be more proactive in educating their female patients about and treating them for their increased heart disease risk to start reversing this alarming trend.

Finally, in the area of management, it has become clear that type 2 diabetes encompasses a cluster of cardiovascular risk factors and that targeted intensive intervention aimed at these multiple risk factors can reduce CVD events by as much as 50%.[12] Still controversial are issues regarding specific treatment goals. For example, what target of glycemic control relative to other CVD risk factor control will affect the development of CVD in type 2 diabetes? The answers are rapidly emerging from a number of studies. There is very clear recent evidence, reviewed in this issue (p. 88), that in type 1 diabetes, glycemic control is crucial in CVD prevention.[13]

Other questions remain. How low should LDL cholesterol and blood pressure be in diabetic individuals with or without established heart disease? Treatment modalities are also topics for debate. For example, what is first-line treatment for hypertension: ACE inhibitors or thiazide diuretics? Should all individuals with diabetes be treated with a statin? What are the cardiovascular benefits of peroxisome proliferator–activated receptor-γ agonists? Are there differences among the cardioprotective effects of different agents in these three drug classes?

Questions also exist regarding new and emerging treatments. What role will be filled by amylin and the incretin therapies: glucagon-like peptide 1 analogs, dipeptidyl peptidase-4 inhibitors, and endocannibanoid receptor inhibitors, all novel treatments for diabetes and related conditions?

This is only a small sample of the important issues on which we have focused during the past 3 1/2 years in our journal and have brought to you, our readers. We have tried to translate what is happening in the world of diabetes and what changes are occurring in response in ways that are practical for you in primary clinical practice. *Clinical Diabetes* under the direction of its new editor-in-chief Tom A. Elasy, MD, MPH, will undoubtedly highlight many of these topics further and present new and exciting developments in a variety of areas related to diabetes care.

Before closing, I would like to take this opportunity to thank my three associate editors, who have made such enormous contributions to our journal. John B. Buse, MD, PhD, CDE, FACE, has been a rock and often served as navigator of our ship, offering guidance to me on the best course to steer. K.M. Venkat Narayan, MD, MPH, MBA, FACP, has contributed, through his knowledge of epidemiology and public health trends and issues, a keen sense of what is important to take home from clinical research results, and he has a writing style that gets key messages across to readers as clearly as possible. And Alan Delamater, PhD, has added the unique perspective of a clinical and research behavioral scientist, enhancing our behavioral-related content with his own contributions and those of his esteemed

colleagues in the field. We all have been aided by the many health care professionals who have served on our editorial board during these years.

It has been our aim through *Clinical Diabetes* to bring to you information about advances in our awareness of key diabetes-related topics, our understanding of diabetes pathophysiology, and particularly the developments in evidence-based approaches to both prevention of diabetes and its complications and diabetes treatment. I hope we made a difference.

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