Reflections

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Looking into a mirror can be dangerous. On one hand, if the mirror is pointed straight ahead, the reflection could be an image that has gone through many changes. On the other hand, if the mirror is pointed at an angle, one can see images to the side or behind. It is with this in mind that we now turn toward our mirror at *Clinical Diabetes.*

This will be the last issue of the current editorial team. The 5-year term we complete here has coincided with what has probably been the most spectacular time in diabetes care since the discovery of insulin more than 80 years ago. In this issue, Dr. Arthur Krosnick provides an excellent rearview-mirror perspective on the history of diabetes care by chronicling his 47-year career as an endocrinologist (p. 173). Dr. Krosnick's article captures the essence of advances through the past five decades of diabetes treatment.

In the more recent past, much excitement in the field of diabetes during our editorial tenure has centered on new treatments. When this editorial team first met in the summer of 1997, insulin lispro (Humalog) had been released a year earlier, and it was already clear that this first insulin analog was a tremendous advance in insulin therapy. At that time, we were also writing our first prescriptions for thiazolidinediones, a new class of oral agents for the treatment of type 2 diabetes. Troglitazone (Rezulin) had just been approved for sale in the United States, and we were all excited

about the potential role of this new insulin sensitizer.

Over time, of course, our enthusiasm waned as the first cases of severe hepatotoxicity were reported in 1998. Liver failure resulting in death or the need for liver transplantation made most of us much more cautious about troglitazone. Furthermore, many of us noted severe weight gain and even pulmonary edema resulting from its use with our patients.[1]

Looking back, what was most disappointing to me was how so many in our field, including those marketing this drug, minimized these adverse effects. Many of us became quite upset and lost trust in the reassurances we had been given as adverse effects continued to be reported. Long after troglitazone was finally removed from the U.S. market in 2000, accounts in the popular press suggested that the situation had been even worse than we had suspected.[2]

The silver lining in the troglitazone story is that it taught all of us to ask critical questions about subsequent new therapies. This is an important point, especially since we learned in 1998 that our older therapies were effective in reducing the microvascular and macrovascular complications of type 2 diabetes.[3,4] In this era in which "evidence-based medicine" is emphasized at every medical school in the country,[5] the United Kingdom Prospective Diabetes Study proved without question that our earlier therapies were both safe and effective.

It may well be that the newer therapies are even more effective than the older, proven treatments. But we need data on hard endpoints, both microvascular and macrovascular, before reaching such conclusions. As we have very recently learned through the Women's Health Initiative regarding hormone replacement therapy,[6] it is difficult to draw definitive conclusions about our therapies until appropriately designed studies with clinically relevant endpoints are conducted.

Despite a wealth of data about the safety and effectiveness of insulin therapy, including for patients without diabetes hospitalized for myocardial infarction or after surgery, as a medical community, we continue to avoid the most important of all diabetes medications. One of the editorial team's goals during the past 5 years was to make insulin therapy less intimidating to our primary care audience. This has become such an important issue for the American Diabetes Association that next year there will be a national clinical education program focused on the practical use of insulin therapy. Unfortunately, we hear all too often stories such as the one Ken Sanek tells in this issue (p. 212) about type 2 diabetic patients whose providers remain resistant to insulin therapy.

Other advances in the past 5 years have included incredible improvements in everyday technologies for our patients. The size of glucose meters, the amount of blood they require, and the time necessary to complete the blood test have all improved.

Sophisticated data management systems for blood glucose readings are still underutilized but are now clearly gaining the interest of both doctors and patients. The trend is to use handheld devices to track glucose data; the ability to communicate this information to providers via the Internet is now a reality.

Insulin pumps have also improved, and we now have continuous glucose sensors as well. The Continuous Glucose Monitoring System was released in 2000, and earlier this year, the GlucoWatch became available. These first-generation devices will only improve with time.

In the past 5 years, we have also seen a real change in the epidemiology of type 2 diabetes, particularly in children. It is now estimated that type 2 diabetes accounts for 8–45% of pediatric patients with newly diagnosed diabetes in large U.S. pediatric centers.[7] These young patients are generally overweight with a strong family history of diabetes and often have other signs of insulin resistance.

Reflecting on what I believe to be the most important advance in the treatment of type 2 diabetes and macrovascular disease, I think of the numerous studies showing that pharmacological intervention can dramatically reduce the risk for cardiovascular events. The use of aspirin, angiotensin-converting enzyme inhibitors, and statins can reduce major events by 25, 25, and 30%, respectively.[8]

Advances in our understanding of the prevention of diabetes have also generated tremendous excitement. The Diabetes Prevention Program proved that it is possible to delay the development of type 2 diabetes.[9] The Diabetes Prevention Trial–Type 1 (DPT-1), although a negative study, gives us further insight into how we may someday be able to prevent this challenging disease.[10] Incoming editor-in-chief Dr. Jennifer Marks discusses the implications of the DPT-1 in this issue's "Landmark Studies" department (p. 168).

The many changes in diabetes therapies have given us much to report in these pages. Our goal throughout this half-decade has been to bring advances in our understanding of diabetes, particularly diabetes therapies, to the primary care providers who see the majority of patients with diabetes. For this reason, we worked to ensure that our editorial advisory board included a large proportion of general internists and family practice physicians in addition to endocrinologists and members of the other health care disciplines involved in diabetes care. Working together, we were better able to meet our goal.

I would like to take this opportunity to thank our three associate editors who have worked extremely hard and made extraordinarily helpful contributions to the journal. Dr. William Herman, who served as an associate editor until this year, has taught me a great deal about evidence-based medicine and the science of the economics of medicine. Dr. Steven Edelman has become one of my best friends as well as my role model for how to be passionate about teaching physicians and patients about diabetes. Dr. Resa Levetan is perhaps the most

creative physician I have ever met. Her ideas for developing interesting articles, translating new information to others, and getting physicians, patients, and their families involved with diabetes to obtain better outcomes are truly inspired.

I would also like to thank the many health care professionals who have served on our editorial board during these past 5 years, and especially Dr. Steven Leichter, who has written "The Business of Diabetes," a department we added to our table of contents early on. Dr. Leichter's provocative discourses on numerous topics in the world of finance and diabetes made this my favorite of the journal's regular departments, and I am very appreciative of his efforts.

It is also important to acknowledge the assistance our team has received from the American Diabetes Association's publications staff, particularly our publisher, Peter Banks; our managing editor, Aime Ballard; our assistant managing editor, Liz Rich; and the journal's advertising and circulation staff. Most of all, the publication of *Clinical Diabetes* would not have been possible without the expertise of our project manager, Debbie Fentress.

Finally, I would like to thank all of the readers who have taken the time to write in with comments, both positive and negative, about our journal. Hopefully, we have succeeded in our mission to educate as many primary care providers as possible about state-of-the-art diabetes care.

It is time now to turn away from the mirror and to look forward. I have no doubt that the future of *Clinical Diabetes* will be even brighter than its present with Dr. Marks of the University of Miami in the editor's chair. She and her team are already planning the first few issues of 2003. I am confident you will find the information they provide both interesting and relevant to your daily clinical practice.

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