

Introduction

Diabetes technology evolved rather rapidly in the past decade, showing significant improvements every year. Interestingly, and somewhat paradoxically, one could argue that advances in technology also have increased the burden of managing diabetes, defined by 1) increased complexity of monitoring and therapy, 2) commitment and knowledge on behalf of patients and their healthcare providers, 3) intricacy of the structure of the clinics caring for patients who utilize diabetes technology, and 4) expenditure of financial resources.

Despite these barriers, the number of patients and providers who are embracing diabetes technology continues to grow as technology clearly improves treatment outcomes and the lives of our patients. A fully automated artificial pancreas the size of a pager or a cellphone is no longer a dream but rather is a rapidly approaching reality.

Integrating information and communication technology into the overall diabetes-related technology expands advances in management and offers huge potential for improving healthcare in general and diabetes care in particular. Mobile apps and text messaging already have been shown to improve glycemic management along with other crucial components of diabetes self-management, such as meal planning, dietary interventions, and activity tracking, as well as education and motivation.

Digital health for continuous glucose monitoring and insulin delivery is ready to explode, bringing to the market new avenues for therapy of both type 1 and type 2 diabetes. Social media undoubtedly will prove to be extremely useful for diabetes management.

These exciting developments also bring significant challenges to diabetes care. With publication of this book, we seek to bring practical solutions and guidelines to many physicians and their patients in this country and around the world, offering expert opinion as to how to overcome many real and perceived obstacles in successful and expanded use of diabetes technology.

Part 1 of this book is written by leaders in this field, and each chapter attempts to integrate seamlessly the data and experience with diabetes technology available to us today with the clinical decision-making process most physicians face in their daily practice. Every author contributing chapters to this book is open to answer any questions the readers might have. Nothing would compliment us more than knowing that this book is helping others to better manage diabetes by involving diabetes technology into therapeutic armamentarium.

Part 2 of this book presents clinical examples of how certified diabetes educators (CDEs) use the latest diabetes technology to manage their patients, addressing the most complex and frequently urgent problems. We hope their experiences would introduce invaluable examples to other CDEs, endocrinologists, and primary care providers and entice them to fully embrace diabetes technology in their practice.

Finally, Part 3 of this book represents the most unique contribution of physicians who have the most intimate, first-hand experience with type 1 diabetes and diabetes technology. These doctors have lived, breathed, and endured diabetes every day and every minute of their lives for decades. They describe their journey into the realm of diabetes technology, their acceptance of this technology, and their successes in managing their own disease and in their professional and family lives. They are true heroes of our time, inspiration to many of us, and role models not only for future generations of doctors and patients but also for humanity. We are so grateful to all of them for sharing their stories with us.