Big Topics for *Diabetes Care* in 2018: Clinical Guidelines, Costs of Diabetes, and Information Technology

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Diabetes Care's editorial committee customarily presents a midyear report of activities and progress. At the midpoint of 2018 we can describe, in addition to a satisfying array of original scientific reports, important feature articles of current interest and a significant new initiative.

In the first half of this year, the journal published several feature articles related to our core responsibility as a journal representing the American Diabetes Association (ADA). An update to the ADA's "Standards of Medical Care in Diabetes" (Standards of Care [SOC]) appeared as a supplement to the January issue (1). The SOC is prepared by the Professional Practice Committee of the ADA and contains guidance on various aspects of care of those with or at risk for diabetes, together with summaries of published data supporting these statements. Because scientific information is accumulating faster than ever before, the ADA announced a new policy in the March 2018 issue (2). The yearly January supplement to *Diabetes Care* will continue as before, but the SOC will now be updated more frequently. The ADA now uses a web annotation tool to update and revise the online version throughout the year, whenever new evidence or regulatory changes merit immediate incorporation. Already in 2018 new information has been added regarding two medications recently approved by the U.S. Food and Drug Administration (semaglutide and ertugliflozin) and an update on the definitions of hypoglycemia. Changes of this kind will be communicated by the ADA through its print, online, and social media channels.

Additional consensus statements and commentaries on new or controversial topics will continue to appear in *Diabetes Care*. Unlike the SOC, they are not official guidance statements but generally reflect the ADA's thinking. For example, a joint statement by representatives of the ADA and the European Association for the Study of Diabetes in the December 2017 issue addressed the "clinical value and utility" of continuous glucose monitoring (3). The June 2018 issue featured an invited commentary on the discrepancy between the ADA's recommendations on blood pressure targets for patients with diabetes and those in a recent statement by the American College of Cardiology and the American Heart Association (4). Similarly, the June issue also presented a commentary prepared in response to a guidance statement from the American College of Physicians, which advocated relaxation of A1C targets for most people with type 2 diabetes (5). The latter commentaries summarized the available experimental evidence on these controversial issues and emphasized the ADA's view that clinical targets for people with diabetes should be individualized.

Another topic of intense interest in the U.S. is the continuing increase in costs attributable to diabetes. Every 5 years the ADA prepares an analysis of direct and indirect costs due to diabetes in the U.S. The most recent cost report appeared in the May 2018 issue of *Diabetes Care* (6), together with an editorial commentary (7) and a collection of original articles related to this topic. The ADA's analysis showed that rising costs were due to both the increasing prevalence of diabetes and increasing expenditures for each individual person with diabetes. The June issue contained a statement by an ADA working group (8) regarding the cost of insulin therapy, which accounts for a significant part of recent increases in costs (6), and a Perspective article placing this issue in a global as well as a national context (9). Our goal in publishing these articles, as with others that address controversial topics, is to improve the evidence base from which better clinical policies may be derived.

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Beyond concerns that directly affect clinical practice in the U.S., issues of *Diabetes Care* in 2018 have contained articles illustrating that diabetes is a global problem. More than 70% of the manuscripts submitted to the journal for review come from outside the U.S. Notable contributions include an analysis of a Chinese database that included >500,000 people followed for almost 10 years, that described a strong association between increasing obesity and incident diabetes in this population (10). Related to this rising tide of diabetes, an analysis of economic trends between now and the year 2030 predicted further increases in costs attributable to diabetes throughout the world (11). A multinational group of authors examined inconsistencies and limitations in clinical guidelines for the management of diabetes in different countries and called for greater efforts to coordinate strategies while matching specific tactics to local circumstances (12).

These and other studies of similarities and differences in diabetes and its management between regions of the world would not be possible without recent improvements in information technology (IT). We are all now linked by the internet, cell phones, social media, and computerized databases, and these repositories of information and channels of communication are affecting the study and treatment of diabetes in various ways. *Diabetes Care* depends on these resources for processing all submitted manuscripts, publishing and disseminating accepted articles, and measuring their impact. Scientists are accustomed to conducting and reporting basic and clinical research in a common language and to interacting with colleagues frequently across thousands of miles. At local levels, both scientific and clinical activities are being transformed by various specific applications of IT. Electronic medical records, research databases, and local and national registries are among these tools, as are glucose sensors, smart insulin-delivery devices, and systems by which study participants and patients can communicate with researchers and medical providers.

Because of the increasing importance of IT systems for collecting, managing, analyzing, and distributing data—and linking it to therapeutic devices—*Diabetes Care* plans to sharpen its focus on them. To introduce this initiative, the December 2017 issue featured a group of articles on continuous glucose monitoring, reporting major steps toward an international consensus on describing and summarizing data collected by this means (13,14). Recently, the 2018 *Diabetes Care* Symposium at the ADA's annual Scientific Sessions included lectures by three experts in the use of advanced technology in clinical settings where good glycemic control is highly desirable yet difficult to attain. These lectures have been summarized in articles that will appear in the August 2018 issue of *Diabetes Care* and are already available online (15–17). Jennifer Sherr (15) describes management of type 1 diabetes in youth with smart glucose-sensing and insulin-delivery systems. Helen Murphy (16) provides a similar evaluation of such systems used during pregnancy, and Guillermo Umpierrez and David Klonoff (17) cover their use during acute hospitalizations. Also during the June 2018 Scientific Sessions, *Diabetes Care* convened an expert group to discuss the benefits and potential problems of managing large databases for both research and clinical practice, with the goal of publishing its conclusions at a later date. Finally, and most relevant to the journal itself, *Diabetes Care* will add a new section for articles dealing with "Emerging Technologies: Data Systems and Devices."

The presence of IT in everyday life is obvious to everyone. Its difficulties, as well as its benefits, are ever apparent in daily use for the study and treatment of diabetes. Data may be collected without consistent definitions of terms and in varying formats. Data management systems may become outmoded or they may be incompatible from one research group, health system, or country to another. The same is true for competing devices that are marketed commercially. Treatment goals and means of assessing them are often not consistent between health systems and regions. To realize the full potential of IT, efforts to harmonize the way data are collected and managed are essential. It is in this context that the consensus statements on continuous glucose monitoring mentioned earlier signal a major step forward. The editorial committee aims to place *Diabetes Care* at the forefront of efforts to improve the application of IT to diabetes care and to report progress in this area as in others.

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