Over the last few decades, the pediatric endocrine community has noticed a rise in metabolic consequences of childhood obesity. Thus, this issue of Pediatric Annals highlights these consequences to make the general pediatrician aware of these conditions with the goal of identifying them early to avoid the complications likely to arise if left untreated. Furthermore, this issue intends to keep the general pediatrician fully informed regarding emerging diabetes technologies, genetic causes of diabetes, endocrinologic complications of childhood cancer, and the concept of transition of care models. These topics are pertinent to the practice of pediatrics today.

Several hypotheses have been explored surrounding the increasing incidence of diabetes and other consequences of obesity, such as vitamin D deficiency and polycystic ovary syndrome (PCOS). One such hypothesis is the “accelerator hypothesis” with obesity as the accelerator. Obesity is likely one cause of the appearance of the metabolic derangements that are being discovered at an alarming rate. We are grappling with the reappearance of vitamin D deficiency. Once a post-World War II problem, vitamin D deficiency is again plaguing the pediatric population. Obesity is associated with higher incidence of vitamin D deficiency. Another metabolic problem associated with the insulin resistance association with obesity is PCOS. Obesity exacerbates the hormonal and clinical features of PCOS and women and adolescents with PCOS appear at higher risk of obesity, with multiple underlying mechanisms linking the conditions. The increasing prevalence of obesity over the course of a lifetime is a global health challenge because of its association with significant health problems. Although pediatric obesity is not explicitly tackled in this issue, we seek to alert the pediatrician to screen for consequences of obesity early on to prevent associated diseases, treat, and/or refer to specialists. If these conditions are not addressed in the pediatric realm, they pose a serious health care threat as children age into adulthood because there are consequences that increase cost to a health care system already struggling with fiscal health.

The increasing incidence of diabetes has necessitated a rise in technology with the aim of easing the burden of diabetes self-care. Thus, we are now seeing the evolution of semi-closed loop insulin delivery and blood glucose monitoring systems, with the goal of moving toward closed-loop systems in which children with diabetes can “set and forget” diabetes self-care, but we are not quite there yet. In this issue, we elucidate these rapidly evolving technologies for pediatricians who treat children with type 1 diabetes. Various forms of maturity-onset diabetes of the young (MODY) are being elucidated. MODY is a rare condition often misdiagnosed as type 1 diabetes. It is important for the pediatrician to recognize that not all diabetes is an autoimmune disease that requires insulin administration; these cases require a specialist.

Due to the rise of cancer in the pediatric population, post-cancer treatment course has evidenced a multitude of endocrinopathies that the pediatrician needs to be cognizant of to detect and to refer to a specialist to manage. Also, there are progressive models for handling the tide of children who are recovering from cancer and transitioning to adult care providers; therefore, pediatricians need an understanding of the emergence of hormonal and metabolic derangements that present after the child has undergone cancer treatment and the existence and importance of transition of care models.
Between the emergence of new metabolic, genetic, and post-cancer diseases, to keeping up with novel diabetes treatment technologies, to meandering developing transition of care models, the way medicine is delivered and practiced is advancing swiftly. Some of the top experts in their respective fields have written articles that are relevant for the general pediatrician to remain current and prepared to effectively practice in today’s increasingly challenging health care environment. I thank them for their contributions.

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