Summary of Revisions: Standards of Care in Diabetes—2025

American Diabetes Association Professional Practice Committee*

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GENERAL CHANGES

The field of diabetes care is rapidly changing as new research, technology, and treatments that can improve the health and well-being of people with diabetes continue to emerge. With annual updates since 1989, the American Diabetes Association has long been a leader in producing guidelines that capture the most current state of the field.

The 2025 "Standards of Care in Diabetes" has continued to incorporate person-first and inclusive language. Efforts were made to consistently apply terminology that empowers people with diabetes and recognizes the individual at the center of diabetes care.

Although levels of evidence for several recommendations have been updated, these changes are not outlined below where the clinical recommendation has remained the same. That is, changes in evidence level from, for example, **E** to **C**, are not noted below. The 2025 Standards of Care contains, in addition to many minor changes that clarify recommendations or reflect new evidence, more substantive revisions detailed below.

SECTION CHANGES

Endorsements

For the second consecutive year, the "Bone Heath" subsection in Section 4, "Comprehensive Medical Evaluation and Assessment of Comorbidities," received endorsement from the American Society for Bone and Mineral Research and Section 8, "Obesity and Weight Management for the Prevention of Type 2 Diabetes," received endorsement from The Obesity Society. For the seventh consecutive year, Section 10, "Cardiovascular Disease and Risk Management," received endorsement from the American College of Cardiology. For the first time, Section 13, "Older Adults," received endorsement from the American Geriatrics Society.

Section 1. Improving Care and Promoting Health in Populations

(https://doi.org/10.2337/dc25-S001)

Recommendation 1.1 was expanded to include people at risk for diabetes in addition to those with diabetes.

Recommendation 1.2 was revised to include, in addition to the Chronic Care Model, other evidence-based care delivery models and frameworks that have been demonstrated to improve diabetes care delivery and health outcomes. These include the Patient-Centered Medical Home model, Accountable Care Organizations, and value-based payment models and are discussed in the text.

Recommendation 1.5 was added to emphasize the importance of quality improvement initiatives and interprofessional teams for supporting sustainable and scalable process changes that improve quality of care and health outcomes. Implementation concepts were added throughout the section to provide actionable guidance on how to implement and sustain interventions that improve care delivery and population health.

Recommendation 1.6 was added to emphasize the importance of assessing and addressing disparities in diabetes care and health outcomes. The text includes actionable guidance on measuring health disparities and engaging interprofessional teams and community partners to address them.

Recommendation 1.7 was revised to emphasize the importance of screening for and addressing multiple social determinants of health that impact diabetes management, health outcomes, and quality of life.

The narrative text now includes an expanded discussion of cost and affordability considerations as well as health disparities and social determinants of health.

Table 1.1 was added to highlight the importance of engaging an interprofessional team approach to person-centered care for people with diabetes across the life span.

Section 2. Diagnosis and Classification of Diabetes

(https://doi.org/10.2337/dc25-S002)

Table 2.3 was added to provide considerations related to the use and interpretation of laboratory measurement of glucose and A1C.

The "Classification" subsection has been updated to provide a pragmatic approach

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Duality of interest information for each author is available at 10.2337/dc25-SDIS.

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to management of individuals who have features of both type 1 and type 2 diabetes.

In the "Type 1 Diabetes" subsection, Recommendation 2.7 was added to emphasize the importance of antibody-based screening for presymptomatic type 1 diabetes in individuals with a family history of type 1 diabetes or otherwise known elevated genetic risk. The associated text was also updated and expanded to reflect these changes.

The "Gestational Diabetes Mellitus" subsection was completely updated to facilitate understanding and implementation of the current various approaches to screening for and diagnosis of gestational diabetes mellitus (GDM).

The text in various other subsections, including those that discuss diabetes and immune checkpoint inhibitors, the role of the gut microbiome in diabetes risk, and monogenic diabetes, was updated.

Section 3. Prevention or Delay of Diabetes and Associated Comorbidities

(https://doi.org/10.2337/dc25-S003)

In the "Lifestyle Behavior Change for Type 2 Diabetes Prevention" subsection, text pertaining to sleep health in relation to risk of type 2 diabetes was added. This addition highlights sleep as a central component in the management of prediabetes and type 2 diabetes, placing it on a level playing field with other lifestyle behaviors (e.g., physical activity and eating patterns).

In the "Pharmacologic Interventions to Delay Type 2 Diabetes" subsection, the text on the proposed use of vitamin D therapy to prevent type 2 diabetes was extensively updated. The text related to long-term metformin therapy and associated vitamin B12 deficiency was also updated.

The language in Recommendation 3.15 was strengthened to facilitate discussion with selected individuals aged ≥8 years with stage 2 type 1 diabetes about the role of teplizumab-mzwv infusion to delay the onset of symptomatic type 1 diabetes (stage 3).

Section 4. Comprehensive Medical Evaluation and Assessment of Comorbidities

(https://doi.org/10.2337/dc25-S004)

Language in **Fig. 4.1** was updated, and **Table 4.1** was modified to include changes made throughout Section 4.

Recommendation 4.3 was changed to include assessment for glycemic status and previous treatment at the initial visit and follow-up visits as appropriate.

Table 4.2 was amended to include essential components for assessment, planning, and referral as appropriate.

Changes were made in the "Immunizations" subsection to reflect updates for COVID-19, pneumococcal pneumonia, influenza, and respiratory syncytial virus. **Table 4.3** was revised to include important vaccination updates.

Recommendation 4.6 was modified to specify initial and repeat screening for autoimmune thyroid disease.

Recommendation 4.10 was updated to specify avoiding medications with known association with higher fracture risk.

Recommendation 4.12 was revised to include the recommended intake of calcium for people with diabetes.

Recommendation 4.13 was updated to specify when antiresorptive medications and osteoanabolic agents should be considered.

Table 4.4 was updated to specify when bone mineral density testing should be performed.

A new subsection, "Dental Care," was added and includes two new recommendations. Recommendation 4.15 was added to state people with diabetes should be referred for a dental exam at least once per year. Recommendation 4.16 was added to state that efforts between medical and dental teams should be coordinated so that glucose-lowering medications can be appropriately adjusted prior to and in the post–dental procedure period as needed.

Recommendation 4.17 was updated to reflect that an assessment for disability should be performed at the initial visit and an assessment for decline in function should be performed at each subsequent visit.

Recommendation 4.18 was modified to include inquiring about sexual health in men and to screen with a morning serum total testosterone if symptoms and/or signs of hypogonadism are present.

Recommendation 4.19 was added to specifically state that men with diabetes or prediabetes should be screened for erectile dysfunction, and new text was added on erectile dysfunction.

A new subsection, "Female Sexual Dysfunction," was added and includes two new recommendations. Recommendation 4.20 states that health care professionals should inquire about sexual health, particularly in women who experience depression and/or anxiety and those with recurrent urinary tract infections. Recommendation 4.21 was added to state that health care professionals should screen for symptoms and/or signs of genitourinary syndrome of menopause.

The terminology for nonalcoholic fatty liver disease (NAFLD) and nonalcoholic steatohepatitis (NASH) was updated to metabolic dysfunction–associated steatotic liver disease (MASLD) and metabolic dysfunction–associated steatohepatitis (MASH), respectively. This updated nomenclature was incorporated throughout the section.

Recommendation 4.22a was revised to specify when to screen for the risk of having or developing cirrhosis related to MASH using the calculated fibrosis-4 index (FIB-4).

Recommendation 4.23 was amended to state that adults with type 2 diabetes or prediabetes and a FIB-4 >1.3 should have additional risk stratification performed.

Recommendation 4.24 was revised to state that individuals with a higher risk for significant liver fibrosis should be referred to a gastroenterologist or hepatologist.

Recommendation 4.25 was revised to include an interprofessional team approach when promoting weight loss, particularly with a structured nutrition plan and physical activity program for cardiometabolic benefits and histological improvement.

Recommendation 4.26 was revised to include a dual glucose-dependent insulinotropic polypeptide (GIP) and glucagon like peptide 1 (GLP-1) receptor agonist (RA) with potential benefits in MASH as an adjunctive therapy to lifestyle interventions for weight loss in adults with type 2 diabetes, MASLD, and overweight or obesity.

Recommendation 4.27a was revised to state that in adults with type 2 diabetes and biopsy-proven MASH or those at high risk for liver fibrosis, use of pioglitazone or a GLP-1 RA or a dual GIP and GLP-1 RA is preferred for glycemic management due to potential beneficial effects on MASH.

Recommendation 4.27b was added to state that combination therapy with pioglitazone and a GLP-1 RA can be considered for treatment of hyperglycemia in adults with type 2 diabetes with biopsy-proven MASH or those at high risk of liver fibrosis because of potential beneficial effects of such a combination on MASH.

Recommendation 4.28 was added to state that treatment with a thyroid hormone receptor-β agonist in adults with

type 2 diabetes or prediabetes with MASLD with moderate (F2) or advanced (F3) liver fibrosis may be considered and that the individual should be referred to a gastroenterologist or hepatologist with expertise in MASLD management for the initiation and monitoring of this therapy.

Recommendation 4.29 was added to emphasize that treatment initiation and monitoring should be individualized and within the context of an interprofessional team for MASLD and MASH management.

Figure 4.2 was revised to reflect important updates to the diagnostic algorithm for risk stratification and the prevention of cirrhosis in individuals MASLD, and new **Fig. 4.3** includes the MASLD treatment algorithm.

Section 5. Facilitating Positive Health Behaviors and Well-being to Improve Health Outcomes

(https://doi.org/10.2337/dc25-S005)

In the "Diabetes Self-Management Education and Support" subsection, Recommendation 5.1 was updated to emphasize that all people with diabetes should be advised to participate in diabetes self-management education and support (DSMES) rather than being just encouraged to participate.

Recommendation 5.2 was updated to clarify when to provide DSMES.

Recommendation 5.3 was revised to be more succinct and action-oriented, placing emphasis on routine assessment of key goals of DSMES.

Recommendation 5.4 was added to emphasize the importance of screening for behavioral health concerns at the same time points as evaluating the need for DSMES.

Language in Recommendation 5.5 was updated to state that DSMES should be culturally appropriate and responsive to individual preferences, needs, and values.

Recommendation 5.6 was updated to reflect the now-common practice of remote-delivery of DSMES and reimbursement for remotely delivered modalities.

Recommendation 5.9 was updated to reinforce the importance of screening for and including social determinants of health in guiding the design and delivery of DSMES.

In the "Medical Nutrition Therapy" subsection, Recommendation 5.12 was updated to emphasize the importance of providing treatment based on nutrition, physical activity, and behavioral therapy for individuals with overweight or obesity, aiming for at least 3–7% weight loss.

Recommendation 5.14 on eating patterns now has revised verbiage to include processed foods, lean proteins, and nondairy alternatives.

Recommendation 5.16 was updated to include actionable language and clarity regarding the use of dietary supplements for glycemic benefits.

Recommendations 5.17 and 5.18 were updated to have revised and actionable language, respectively.

Recommendation 5.19 was updated to use actionable language.

Recommendation 5.20 was revised to recommend limiting sodium as clinically appropriate, which can be done, in part, by limiting consumption of processed foods.

Recommendation 5.21 was modified to recommend water over nutritive and nonnutritive sweetened beverages, and Recommendation 5.22 was added to state that nonnutritive sweeteners can be used instead of sugar-sweetened products in moderation and for short term to reduce overall calorie and carbohydrate intake.

Recommendation 5.23 was added to emphasize the screening for malnutrition, especially for those who have undergone metabolic surgery and for those being treated with weight management pharmacological therapies.

Recommendation 5.25 was revised to use actionable language.

Recommendation 5.26 was added to address the issue of sodium–glucose cotransporter (SGLT) inhibition being associated with ketoacidosis under certain conditions. It provides guidance on awareness, prevention, risk mitigation, and dietary adjustments.

Recommendation 5.29 was added to encourage intake of plant-based proteins and fiber, and Recommendation 5.31 was added to encourage limiting foods high in saturated fats to reduce cardiovascular disease risk.

Two new recommendations were added for religious fasting. Recommendation 5.32 states to use the Diabetes and Ramadan International Alliance comprehensive prefasting risk assessment for risk stratification of people with diabetes prior to engaging in religious fasting. Recommendation 5.33 was created to provide guidance to health care professionals caring for people with diabetes who participate in religious fasting.

Additionally, newly added **Fig. 5.1** illustrates differences and similarities between religious and intermittent fasting for people with diabetes. **Table 5.4** includes a risk calculation and suggested risk score for people with diabetes who seek to fast during Ramadan, and **Table 5.5** includes information about medication changes during fasting.

In the "Physical Activity" subsection, Recommendation 5.34 was updated to include a statement about limiting the amount of time spent sedentary, which includes recreational screen time.

Recommendation 5.38 was modified to state that prolonged sitting should be interrupted at least every 30 min for glycemic benefits.

Recommendation 5.39 was added to counsel adults and youth receiving weight management pharmacotherapy or metabolic surgery to meet physical activity recommendations. The accompanying text addresses the concern of sarcopenic obesity with use of incretin therapies and metabolic surgery.

In the "Smoking Cessation: Tobacco, E-cigarettes, and Cannabis" subsection, Recommendation 5.42 was added to advise people with type 1 diabetes and those with other forms of diabetes at risk for diabetic ketoacidosis (DKA) to not use recreational cannabis in any form due to the risk of cannabis hyperemesis syndrome. The accompanying text describes cannabis hyperemesis syndrome and its diagnostic criteria.

Recommendation 5.43 in "Supporting Positive Health Behaviors" was updated to include health-related quality of life as an outcome when using behavioral health strategies to support self-management and healthy behaviors.

Recommendation 5.45 in "Psychosocial Care" was revised to state the specific psychosocial concerns health care professionals should screen for including diabetes distress, depression, anxiety, fear of hypoglycemia, and disordered eating behaviors.

Recommendation 5.48 in "Diabetes Distress" was updated to recommend the frequency of at least annual screening for diabetes distress in people with diabetes, caregivers, and family members.

Recommendation 5.49 in "Anxiety" was updated to recommend screening for anxiety, which is in accordance with the U.S. Preventive Services Task Force recommendation for screening for anxiety.

Recommendation 5.50 in "Anxiety" was added to include a recommendation for

screening for fear of hypoglycemia in people with diabetes at risk for hypoglycemia or fear of hypoglycemia.

Recommendation 5.51 in "Depression" was modified to have more actionable language for the importance of depression rescreening.

Recommendation 5.54 in "Disordered Eating Behavior" was updated to recommend screening for disordered or disrupted eating using validated screening measures. The accompanying text describes the disordered or disrupted eating behaviors commonly reported in people with diabetes.

Tables 5.7 and **5.8** were added to illustrate psychosocial concerns and their association with diabetes-related outcomes in adults with type 1 and type 2 diabetes, respectively.

Section 6. Glycemic Goals and Hypoglycemia

(https://doi.org/10.2337/dc25-S006)

Recommendation 6.12 was added to promote routine screening for fear of hypoglycemia in individuals at risk for hypoglycemia.

A new subsection entitled "Hyperglycemic Crises: Diagnosis, Management, and Prevention" was added to cover the epidemiology, diagnostic criteria, and outpatient prevention of DKA and the hyperglycemic hyperosmolar state (HHS).

New recommendations on routine assessment of history of DKA and HHS (recommendation 6.20) and providing structured prevention education (Recommendation 6.21) in the outpatient setting were added.

Tables 6.9 and **6.10** were added and include risk factors for hyperglycemic crises as well as clinical presentation of DKA and HHS in people with diabetes, respectively.

Figure 6.2 was revised to provide a specific and actionable approach to selecting individual glycemic goals, accounting for health status and other person- and treatment-specific factors favoring more or less stringent goals.

Section 7. Diabetes Technology

(https://doi.org/10.2337/dc25-S007)

Recommendation 7.8 was modified to emphasize consideration for starting diabetes technology early, even at diagnosis.

Recommendation 7.9 was added to emphasize that reports for all continuous glucose monitoring (CGM) devices, connected insulin devices, and continuous subcutaneous insulin infusion and automated insulin delivery (AID) systems should be standardized with at a minimum the ambulatory glucose profile and weekly summary. In addition, there should be options for raw data or daily and weekly reports available to the health care professionals.

Recommendation 7.14 was modified to make the clinician aware of potential interference of medications and other substances on glucose levels measured by blood glucose meters.

Table 7.2 was modified to include the various potential substances or medical conditions that may affect glucose levels when measured by blood glucose meters.

Table 7.3 was modified to include the description of over-the-counter CGM devices.

Recommendation 7.15 was modified to support the use of real-time CGM (rtCGM) and intermittently scanned CGM (isCGM) for youth and adults with diabetes (type 1 or type 2) on any type of insulin therapy based on the most recent literature.

Recommendation 7.16 was added to consider the use of rtCGM or isCGM in adults with type 2 diabetes on glucose-lowering agents other than insulin to achieve and maintain individualized glycemic goals.

Recommendation 7.18 was modified to align with Section 15, "Management of Diabetes in Pregnancy," and reflect the update of CGM benefits in type 1 diabetes and pregnancy and other types of diabetes in pregnancy.

The text on CGM was expanded to include the updated sensors integrated with AID systems and to update the most recent literature evidence supporting the benefits of CGM in individuals with type 2 diabetes on glucose-lowering agents other than insulin from clinical trials and real-world studies. Furthermore, the CGM section was expanded to include the need to standardize any diabetes technology device reports and to provide clinicians not only with single page summaries but also with access to detailed reports and even raw data from devices, especially those reporting insulin dose modifications, such as AID systems.

The text on insulin pumps and AID systems was greatly expanded to discuss the features of the various AID systems and their data from pivotal trials and real-world studies in type 1 and type 2 diabetes.

Recommendation 7.29 was modified to include provision of support and diabetes management advice in people with diabetes using open-source closed-loop systems.

The text for open-source closed-loop systems was also expanded to include the most recent published evidence on the safety and effectiveness of these systems in people with type 1 diabetes.

Recommendation 7.30 was expanded to include the benefits of combining technology with online or virtual coaching to improve glycemic outcomes in individuals with diabetes and prediabetes.

Recommendation 7.32 was refined to emphasize the importance of continuing the use of insulin pumps or AID in people with diabetes while hospitalized when clinically appropriate and with confirmatory point-of-care blood glucose measurements for insulin dose adjustments and hypoglycemia assessment and treatment. The use of these devices in the inpatient setting should be contingent on the availability of infrastructure support and institutional diabetes technology protocols.

Section 8. Obesity and Weight Management for the Prevention and Treatment of Type 2 Diabetes

(https://doi.org/10.2337/dc25-S008)

Recommendation 8.2a was updated to clarify that additional measurements of body fat distribution are warranted if BMI is indeterminant.

Recommendation 8.2b was revised to recommend monitoring of obesity-related anthropometric measurements at least every 3 months during active weight management treatment.

Discussion of weight stigma and bias toward people living in larger bodies was added to the text.

Recommendation 8.11 was enhanced to reflect the importance of continued monitoring, support, and interventions for individuals who have achieved weight loss goals to support the maintenance of these goals long term.

Recommendation 8.18 was added to recommend screening for malnutrition for people with diabetes and obesity who have lost significant weight.

Recommendation 8.19 was added to recommend continuing weight management pharmacotherapy, as indicated, beyond reaching weight loss goals to maintain health benefits and avoid weight regain

and worsening of cardiometabolic abnormalities that often result from sudden discontinuation of weight management pharmacotherapy.

Recommendation 8.25 was revised to emphasize use of a CGM device to improve safety in individuals with post–metabolic surgery hypoglycemia.

Updated **Tables 8.1** and **8.2** provide detailed information on the efficacy, common side effects, safety considerations, and costs of approved weight management pharmacotherapy options.

Discussion of medication cost and access barriers was added to the text, including suggestions to members of the interprofessional diabetes care team on mitigating financial barriers.

Section 9. Pharmacologic Approaches to Glycemic Treatment

(https://doi.org/10.2337/dc25-S009)

This section was reorganized and expanded with two new subsections: *1*) a subsection titled "Additional Recommendations for All Individuals With Diabetes" that includes new recommendations as well as recommendations previously listed with those for individuals with type 1 or type 2 diabetes if pertinent to individuals regardless of their type of diabetes, and *2*) a subsection titled "Special Circumstances and Populations."

Figure 9.1 was revised for clarity, and a general statement was added to **Table 9.1** on dose adjustments when using AID systems.

The subsection on insulin administration technique was expanded to address inhaled insulin and use of insulin bolus patches.

Recommendation 9.8 was revised to emphasize the importance of selecting glucose-lowering medications that provide sufficient effectiveness and achieve and maintain multiple treatment goals simultaneously, including improving cardiovascular, kidney, weight, and other relevant outcomes, reducing hypoglycemia risk, and considering cost, access, risk for adverse reactions, and individual preferences.

Recommendations were revised to explicitly advise on choice of pharmacotherapy for individuals with type 2 diabetes and established or high risk of atherosclerotic cardiovascular disease (ASCVD) (Recommendation 9.10), heart failure (Recommendation 9.11), and chronic kidney disease (CKD) (Recommendation 9.12) to improve health outcomes for individuals with these conditions irrespective of A1C.

Recommendation 9.12 was added to recommend use of GLP-1 RA with demonstrated benefits in individuals with type 2 diabetes, symptomatic heart failure with preserved ejection fraction, and obesity.

Recommendation 9.13 was revised to recommend use of either SGLT2 inhibitor or GLP-1 RA with demonstrated benefits in individuals with type 2 diabetes and CKD.

Recommendations 9.15 and 9.16 were added to recommend treatment of individuals with type 2 diabetes and MASLD or MASH with GLP-1 RA, dual GIP and GLP-1 RA, pioglitazone, or a combination of GLP-1 RA and pioglitazone based on the staging of liver disease risk and need for weight management.

Figure 9.3 and the text discussing choice of glucose-lowering therapy in adults with type 2 diabetes were extensively revised to facilitate evidence-based selection of glucose-lowering therapies based on individualized treatment goals. Considerations of glucose-lowering medication effects on MASLD and MASH were added to **Fig. 9.3**.

Table 9.2 was simplified and revised to better highlight important considerations when choosing medications for lowering glucose in type 2 diabetes.

Recommendation 9.20 was clarified to recommend reassessing the need for and/or dose of medications with higher hypoglycemia risk (i.e., sulfonylureas, meglitinides, and insulin) when initiating a new glucose-lowering medication to minimize the risk of hypoglycemia and treatment burden.

Recommendation 9.21 was added to advise against concurrent use of a dipeptidyl peptidase 4 inhibitor with a GLP-1 RA due to lack of additional glucose lowering beyond that of a GLP-1 RA alone.

Recommendation 9.24 was clarified by specifying that a GLP-1 RA or a dual GIP and GLP-1 RA is preferred to insulin in adults with type 2 diabetes only in the absence of evidence of insulin deficiency.

Text in the "Basal Insulin" section was revised to provide guidance on switching between different basal insulin formulations.

Figure 9.4 was revised for clarity, and the list of options for prandial insulin was expanded.

Recommendation 9.27 was revised to remove consideration of basal insulin doses exceeding 0.5 units/kg/day as evidence of overbasalization. Instead, signs of overbasalization including significant bedtime-to-morning or postprandial-to-preprandial glucose differential, occurrences of hypoglycemia (aware or unaware), and high glycemic variability should be used.

Tables 9.3 and **9.4** were updated with glucose-lowering medication and insulin costs as of 1 July 2024, and an expanded discussion on medication costs and affordability was added to the text.

In the new subsection "Special Circumstances and Populations," Recommendations 9.31a, 9.31b, and 9.31c were added to advise on actions to take when medications are not available (such as medication shortages); Recommendations 9.32a and 9.32b were added to address care considerations for individuals of childbearing potential; and Recommendation 9.33 was added to provide guidance on mitigating risk of ketoacidosis when individuals at risk for ketoacidosis or who follow a ketogenic eating pattern are treated with SGLT inhibition. Additional text in this subsection discusses considerations for glucose-lowering pharmacotherapy for individuals with diabetes secondary to chemotherapy and with other types of diabetes (i.e., pancreatogenic diabetes, cystic fibrosis–related diabetes, posttransplant diabetes, maturity-onset diabetes of the young, and neonatal diabetes).

Section 10. Cardiovascular Disease and Risk Management

(https://doi.org/10.2337/dc25-S010)

Recommendation 10.1 was updated with details on the frequency of recommended blood pressure monitoring.

Figure 10.2 was updated to provide clarity on medication classes for the treatment of confirmed hypertension in nonpregnant people with diabetes.

Recommendation 10.12 was modified to specify appropriate monitoring for increased serum creatinine levels, serum potassium levels, and hypokalemia when ACE inhibitors, angiotensin receptor blockers (ARBs), or mineralocorticoid receptor antagonists are used.

Recommendation 10.13 was added to specify hypertension treatment options that should be avoided during pregnancy and in sexually active individuals of childbearing potential not using reliable contraception.

Recommendation 10.26 was added to recommend that in most cases lipid-lowering agents should be discontinued prior to conception and avoided in sexually

active individuals of childbearing potential not using reliable contraception, unless the benefits may outweigh the risk.

Figures 10.3 and **10.4** were added to illustrate recommendations for primary prevention and secondary prevention of ASCVD, respectively, in people with diabetes using cholesterol-lowering therapy.

Triglyceride thresholds were updated in Recommendations 10.31 and 10.32.

The criteria for coronary artery disease investigations in Recommendation 10.39b were revised to include signs or symptoms of cardiac or associated vascular disease or electrocardiogram abnormalities.

Recommendation 10.41 was modified to include screening for peripheral artery disease (PAD) with ankle-brachial index testing in asymptomatic people with diabetes aged ≥65 years, microvascular disease in any location, or foot complications or any end-organ damage from diabetes if a PAD diagnosis would change management. PAD screening should also be considered in individuals with diabetes duration ≥10 years and high cardiovascular risk.

For individuals with type 2 diabetes, obesity, and symptomatic heart failure with preserved ejection fraction, Recommendation 10.46d was added to recommend treatment with a GLP-1 RA with demonstrated benefit in this population to reduce heart failure–related symptoms, reduce physical limitations, and improve exercise function.

Figure 10.5 was added to illustrate recommendations for screening for asymptomatic and undiagnosed cardiovascular disease, and **Fig. 10.6** was added to provide an overview of recommendations for the prevention of the development of symptomatic heart failure in people with diabetes.

Section 11. Chronic Kidney Disease and Risk Management

(https://doi.org/10.2337/dc25-S011)

Recommendation 11.3 was amended for clarity about optimizing blood pressure management goals.

Recommendation 11.4a was revised to clarify that ACE inhibitors or ARBs should be titrated to the maximally tolerated dose to prevent the progression of CKD and reduce cardiovascular events in nonpregnant individuals with diabetes and hypertension.

Recommendation 11.4b was modified to specify appropriate monitoring for increased serum creatinine levels, serum potassium levels, and hypokalemia when ACE inhibitors, ARBs, or mineralocorticoid receptor antagonists are used.

Recommendation 11.5b was updated to state that for people with type 2 diabetes and CKD, a GLP-1 RA with demonstrated benefit in this population should be used to reduce cardiovascular risk and kidney disease progression.

Recommendation 11.6 was added to state that potentially harmful antihypertensive medications in pregnancy should be avoided in sexually active individuals of childbearing potential not using reliable contraception and to switch to options considered safer prior to conception and during pregnancy.

Recommendation 11.7 was updated to specify reducing urinary albumin by ≥30% to slow progression of CKD.

Recommendation 11.8 was updated to specify protein goals for individuals with stage 3 or higher CKD and those who are treated with dialysis.

Table 11.1 was added to include reasons to consider non–diabetes-related kidney diseases in a person with CKD and diabetes, and **Table 11.3** was added to include suggestions for interventions that lower albuminuria.

Section 12. Retinopathy, Neuropathy, and Foot Care

(https://doi.org/10.2337/dc25-S012)

Recommendation 12.5 was updated to specify involvement of an ophthalmologist for more frequent examinations if retinopathy is progressing or sight threatening.

Recommendation 12.8 wording was changed to reflect that a dilated eye exam should be performed before and in the first trimester, rather than one or the other.

Recommendation 12.19 was modified to include additional screening criteria for symptoms and signs of autonomic neuropathy.

Recommendation 12.22 was updated to recommend against opioid use for neuropathic pain treatment due to the potential for adverse events, and the narrative text was updated to expand on this.

A short discussion on the role of weight management and neuropathy was added to the narrative text.

Recommendation 12.24 was updated to include the Ipswich touch test as an option for neurological assessment.

Recommendation 12.29 was expanded to include the importance of smoke cessation and referral for counseling for individuals who smoke and have a prior history of lower-extremity complications, loss of protective sensation, structural abnormalities, or PAD.

Increasing role of surgery in diabetic foot management was added to the narrative text of foot care section.

Section 13. Older Adults

(https://doi.org/10.2337/dc25-S013)

The 4Ms framework of age-friendly health systems (Mentation, Medications, Mobility, and What Matters Most) as it applies to diabetes management in older adults was introduced and illustrated in the new **Fig. 13.1**.

Recommendation 13.8a was modified to include time in range and time below range in addition to A1C treatment goals for older adults who are otherwise healthy with few and stable chronic conditions and intact cognitive functional status.

Recommendation 13.8b was modified to include time in range and time below range in addition to A1C treatment goals for older adults who have intermediate or complex health who are clinically heterogeneous with variable life expectancy.

Table 13.1 was modified to include a column on reasonable CGM goals for each health status category.

In the "Treatment" section, the appropriate selection and use of SGLT2 inhibitors in older adults was expanded.

Section 14. Children and Adolescents

(https://doi.org/10.2337/dc25-S014)

Recommendation 14.4 in the "Type 1 Diabetes" section was added to emphasize key nutrition principles.

Recommendation 14.10 was altered to emphasize limits on sedentary activity.

Recommendation 14.21 was changed to state that insulin pumps should be offered to anyone with type 1 diabetes who can use the devices safely.

Recommendation 14.24 was modified to remove lack of access as a reason for less stringent A1C goals.

Recommendation 14.26 was altered to include weight gain as a balancing measure for more stringent A1C goals.

Recommendation 14.36 was changed to exclude secondary causes of hypertension.

Recommendation 14.41 was updated to include the use of age-approved statins.

Recommendation 14.50 was modified to state that screening should be repeated at a minimum of 2-year intervals

or more frequently if screening is normal and BMI is increasing.

Recommendation 14.57 was revised to include the key nutritional principles and provide specific examples of healthy food choices and what foods should be avoided.

Recommendation 14.60 was changed to recommend an A1C goal of <6.5% (<48 mmol/mol) for most children and adolescents with type 2 diabetes who have a low risk of hypoglycemia and a higher risk of complications.

Recommendation 14.65 was revised to change the terminology from "hyperglycemic hyperosmolar nonketotic syndrome" to "hyperglycemic hyperosmolar state" and include intravenous fluid as the initial step to treat severe hyperglycemia (blood glucose ≥600 mg/dL) once the diagnosis is confirmed.

The narrative was updated to reinforce the benefits and safety of GLP-1 RAs in decreasing A1C, weight, blood pressure, and insulin dose reduction. **Figure 14.1** was updated to reflect the revision in this recommendation.

Recommendation 14.73 was modified to reflect that excluding secondary hypertension is an essential step in hypertension management.

Recommendation 14.104 was revised to state that vaping and electronic cigarettes are both discouraged.

Recommendation 14.105 in the "Substance Use in Pediatric Diabetes" section was added to state that all youth with diabetes should be advised not to use cannabis recreationally in any form.

Recommendation 14.108 was modified to encourage pediatric diabetes specialists to partner with youth with diabetes and their caregivers to engage in shared decision-making.

Tables 14.1*A* and **14.1*B*** were modified to include changes made throughout Section 14.

Section 15. Management of Diabetes in Pregnancy

(https://doi.org/10.2337/dc25-S015)

Section 15 was restructured to discuss the care of pregnant individuals with type 1 diabetes, type 2 diabetes, and GDM in all sections and to discuss aspects of management in each relevant subsection (e.g., preconception care and pharmacotherapy); consequently, the order of appearance of some of the recommendations changed.

Recommendation 15.7 wording was changed to reflect that a dilated eye exam should be performed before and in the first trimester, rather than one or the other.

Table 15.1 was updated with a folic acid supplement recommendation of 400–800 μg/day and clarification for which checklist items are only for individuals with preexisting diabetes and not for individuals with prediabetes or a history of GDM, and specific immunizations were omitted and referenced.

In Recommendation 15.10, the benefits of CGM use in type 1 diabetes and pregnancy were clarified, and an addition of its potential to be beneficial in other types of diabetes in pregnancy was added.

Recommendation 15.12 no longer states that CGM metrics should not be used as a substitute for blood glucose monitoring; the recommendation now states that CGM may be used in conjunction with blood glucose monitoring to achieve glycemic goals.

Glucose goals for preexisting diabetes, GDM treated with insulin, and GDM not treated with insulin are consolidated into a new **Table 15.2**.

"Management of Gestational Diabetes Mellitus" and "Management of Preexisting Type 1 Diabetes and Type 2 Diabetes Pregnancy" were merged into one subsection, titled "Management of Diabetes in Pregnancy," which includes all aspects of management for all types of diabetes (e.g., nutrition, physical activity, and pharmacotherapy).

Recommendation 15.14 provides more clarification on the recommended eating pattern in pregnancy.

Insulin recommendations that were previously split into separate recommendations for preexisting diabetes and GDM were merged.

There are two new recommendations regarding AID use in type 1 diabetes and pregnancy. Recommendation 15.19 states that AID systems are recommended if the system has a pregnancy-specific glucose goal. Recommendation 15.20 states that AID systems may be considered for select individuals with an experienced health care team if the system does not have a pregnancy-specific glucose goal or algorithm.

Recommendation 15.21 provides more clarification for why metformin and glyburide should not be first-line agents for management of diabetes in pregnancy.

The narrative for subsection "Physical Activity" includes recommended activity levels for pregnancy, as these pertain to individuals with any type of diabetes in pregnancy.

The "Insulin" subsection includes information on different insulin delivery modalities used during labor and delivery or postpartum.

The recommendation to explicitly measure blood pressure during pregnancy is now mentioned in the narrative of the "Preeclampsia and Aspirin" subsection per the recent guidelines of the U.S. Preventive Services Task Force.

Recommendation 15.25 was split into two recommendations. Recommendation 15.25a provides more examples of potentially harmful medications in pregnancy. Recommendation 15.25b recommends that lipid-lowering medications be avoided in most circumstances in pregnancy but that statins may be considered for use in high-risk individuals (such as those with prior ASCVD and familial hypercholesterolemia) when benefits outweigh risks. The narrative discusses Recommendation 15.25b in more detail and includes discussion of studies of pravastatin use in pregnancy.

Section 16. Diabetes Care in the Hospital

(https://doi.org/10.2337/dc25-S016)

Diabetes care in the hospital stresses identification and treatment of dysglycemia and provides glycemic goals. For the treatment of persistent hyperglycemia starting at a threshold of ≥180 mg/dL (≥10.0 mmol/L), Recommendation 16.4a was amended to reflect that insulin should be initiated or intensified for the majority of critically ill individuals, and Recommendation 16.4b was added to state that insulin and/or other glucose-lowering therapies should be initiated or intensified for the majority of noncritically ill individuals.

Recommendation 16.5a was updated to state that a glycemic goal of 140–180 mg/dL (7.8–10.0 mmol/L) is recommended for most critically ill individuals, but more stringent individualized glycemic goals may be appropriate if they can be achieved without significant hypoglycemia. Recommendation 16.5b was updated to recommend a glycemic goal of 100–180 mg/dL (5.6–10.0 mmol/L) for most noncritically ill individuals if it can be achieved without significant hypoglycemia.

Recommendation 16.7 was amended for clarity on the use of insulin pump or AID continuation and their use in people with diabetes who are hospitalized, when clinically appropriate.

Recommendation 16.8a was added to state that continuous intravenous insulin infusion is recommended for achieving glycemic goals and avoiding hypoglycemia in critically ill individuals.

The language regarding a hypoglycemia management surveillance protocol for health systems was updated for clarity in Recommendation 16.12.

Guidance regarding use of GLP-1 RA and dual GIP and GLP-1 RA medications in the perioperative setting and regarding instructions in preparation for procedures or surgery has been added to the narrative text.

Recommendations 16.14 and 16.15 were added for DKA and HHS management; transition to maintenance subcutaneous insulin administration and discharge planning were added. Additionally, the newly added **Fig. 16.1** includes treatment pathways for DKA and HHS.

Section 17. Diabetes Advocacy

(https://doi.org/10.2337/dc25-S017)

The subsections "Diabetes Care in the School Setting" and "Diabetes and Driving" were updated with information from recently published advocacy statements. The subsection "Diabetes Management in Detention Facilities" was added with information from a recently published advocacy statement.