Summary of Revisions: *Standards of Care in Diabetes—2024*

*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 (ADA) has long been a leader in producing guidelines that capture the most current state of the field.

The 2024 Standards of Care includes revisions 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 2024 Standards of Care contains, in addition to many minor changes that clarify recommendations or reflect new evidence, more substantive revisions detailed below.

SECTION CHANGES

Section 1. Improving Care and Promoting Health in Populations

(https://doi.org/10.2337/dc24-S001)

Recommendation 1.4 was updated to emphasize improving processes of care and health outcomes, costs, individual preferences and goals, and treatment burden.

The subsection "Status and Demographics of Diabetes Care," formerly "Care Delivery Systems," was updated to include current data with respect to cholesterol, blood pressure, and glycemic management.

The "Cost Considerations for Medication-Taking Behaviors" subsection now includes costs of insulin and glucose monitoring devices, with an update on insulin price lowering.

Language was added to the "Homelessness and Housing Insecurity" subsection to reflect issues more accurately in this population.

The "Social Capital and Community Support" subsection now discusses the possible role of community paramedics in community-based diabetes care.

Section 2. Diagnosis and Classification of Diabetes

(https://doi.org/10.2337/dc24-S002)

The title of Section 2 was changed to "Diagnosis and Classification of Diabetes" to better represent real-world clinical practice (i.e., diagnosis occurs before classification).

Recommendation 2.1a was added to emphasize the structured approach to diagnostic testing, and Recommendation 2.1b was updated to highlight the importance of confirmatory testing when an abnormal test result is identified.

Tables 2.1 and **2.2** were modified to include A1C at the top of the testing hierarchy to acknowledge real-world practice when diagnosing diabetes and prediabetes, respectively.

Recommendation 2.5 was added to emphasize the importance of differentiating which form of diabetes an individual has in order to facilitate personalized management.

Figure 2.1 was added as a new figure to provide a structured framework for investigation of suspected type 1 diabetes in newly diagnosed adults.

The "Type 1 Diabetes" subsection was updated to refine diagnostic criteria for type 1 diabetes based on recent U.S. Food and Drug Administration (FDA) approval of a new drug to delay the incidence of type 1 diabetes. Recommendations 2.6 and 2.7, for type 1 diabetes, were updated accordingly.

Recommendation 2.8 was added for consideration of standardized islet autoantibody tests for classification of diabetes in adults who phenotypically overlap with type 1 diabetes, and a new paragraph was added to highlight the possible association between coronavirus disease 2019 (COVID-19) infection and new-onset type 1 diabetes.

Recommendation 2.15a was added to emphasize the role of several medication classes in increasing the risk of prediabetes and type 2 diabetes and the need for screening.

Recommendation 2.15b was added to provide screening guidance for prediabetes

**A complete list of members of the American Diabetes Association Professional Practice Committee can be found at https://doi.org/10.2337/dc24-SINT.*

Duality of interest information for each author is available at https://doi.org/10.2337/dc24-SDIS.

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and type 2 diabetes in individuals treated with second-generation antipsychotic medications.

In the "Pancreatic Diabetes or Diabetes in the Context of Disease of the Exocrine Pancreas" subsection, Recommendation 2.17 was added to highlight the importance of screening for diabetes in people following an episode of acute pancreatitis or in individuals with chronic pancreatitis.

In addition, the discussion on cystic fibrosis–related diabetes (CFRD) was incorporated into this subsection. Recommendation 2.19 was modified to clarify that while A1C is not recommended as a screening test for CFRD due to low sensitivity, it is widely used in clinical practice, and a value of ≥6.5% (≥48 mmol/mol) is consistent with a diagnosis of CFRD.

Section 3. Prevention or Delay of Diabetes and Associated Comorbidities

(https://doi.org/10.2337/dc24-S003)

Recommendation 3.2 was added to state the importance of monitoring individuals at risk for developing type 1 diabetes, as a younger age of seroconversion (particularly under age 3 years), the number of diabetes-related autoantibodies identified, and the development of autoantibodies against islet antigen 2 (IA-2) have all been associated with more rapid progression to clinical type 1 diabetes.

Recommendation 3.15 was added to address use of teplizumab, which was approved to delay the onset of stage 3 type 1 diabetes in adults and pediatric individuals (aged 8 years and older) with stage 2 type 1 diabetes.

Section 4. Comprehensive Medical Evaluation and Assessment of Comorbidities

(https://doi.org/10.2337/dc24-S004)

In Recommendation 4.1, language was modified to be more inclusive for comprehensive medical evaluation.

Figure 4.1 was updated to include individual lifestyle choices when choosing treatment, and **Table 4.1** was modified to include changes made throughout Section 4.

Changes were made in the "Immunizations" subsection to reflect the COVID-19 post-pandemic period, and updates were made regarding the respiratory syncytial virus vaccine in adults ≥60 years of age with chronic conditions such as diabetes. **Table 4.4**, formerly **Table 4.5**, was revised to include these important vaccination updates.

The subsection on "Bone Health" has been extensively revised and updated to reflect the current best practices in the field. Recommendations 4.9–4.14 were added to include regular evaluation and treatment for bone health, and accompanying text was expanded to reflect these updates. **Table 4.5** was added to include general and diabetes-specific risk factors for fracture.

Recommendation 4.22 was added to include assessment and referral to appropriate health care professionals who specialize in disability management, which was expanded upon in the text.

Major changes regarding liver disease in people with diabetes were previously added as a 2023 Living Standards update, with extensive recommendations for screening and management to be in alignment with other professional societies. In addition, the recently proposed changes in the nomenclature proposed for steatotic liver disease is discussed. The terminology for nonalcoholic fatty liver disease and nonalcoholic steatohepatitis was maintained at this time.

The "Bone Health" subsection is endorsed by the American Society for Bone and Mineral Research.

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

(https://doi.org/10.2337/dc24-S005)

The recommendations and text of Section 5 were adjusted to place focus on guiding the behavior of health care professionals rather than people with diabetes, thus aligning with the purpose of the Standards of Care as guidance for health care professionals.

Recommendation 5.2 was updated to reflect five critical times to evaluate the need for diabetes self-management and education (DSMES): at diagnosis, when not meeting treatment goals, annually, when complicating factors develop, and when transitions in life and care occur.

Recommendation 5.4 was updated to include a broader integration of cultural sensitivity in the context of person-centered care.

Recommendation 5.5 reflects inclusion of telehealth and digital interventions for DSMES.

The "Diabetes Self-Management Education and Support" subsection text was updated to reflect changes in DSMES reimbursement policies and the importance of addressing barriers to using DSMES services.

Recommendation 5.13 was added to the "Medical Nutrition Therapy" subsection to incorporate inclusive food-based eating patterns with key nutrition principles that are foundational to all people with diabetes, and Recommendation 5.20 was updated to emphasize including healthy fats within the context of a Mediterranean style of eating.

A subsection on religious fasting was added, and the concept of chrononutrition (impact of eating on circadian rhythms) was introduced.

Recommendation 5.23 was updated to include advising alcohol abstainers to not begin use of alcohol for the purpose of improving health outcomes.

The text on nonnutritive sweeteners was expanded to address the World Health Organization's conditional recommendation on their use and safety.

In the "Physical Activity" subsection, Recommendation 5.31 was updated to define sedentary behavior and to be inclusive of all types of diabetes. The text of this subsection was updated to include a discussion of the application and benefits of high-intensity interval training.

The subsection "Smoking Cessation: Tobacco, E-cigarettes, and Cannabis" was updated to include cannabis. Although not enough data are available to support a new recommendation, the text of this subsection was revised to include a discussion on cannabis use. In addition, Recommendation 5.33 was updated to advise that clinicians ask people with diabetes about use of cigarettes or other tobacco products and make appropriate referrals for cessation as a routine component of diabetes care and education.

Recommendation 5.36 in the "Psychosocial Care" subsection was updated to provide greater detail for psychosocial screening protocols, including diabetes-related mood concerns, stress, and quality of life.

Recommendation 5.39 was changed to specify the frequency for diabetes distress screening and to highlight the role of health care professionals in addressing diabetes distress. The accompanying text also includes links to validated measures of diabetes distress.

Recommendation 5.40 has been updated to include screening for fear of hypoglycemia.

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Recommendation 5.41 has been updated to reflect increased frequency for depression screening and monitoring in people with a history of depression.

In the "Sleep Health" subsection, Recommendation 5.51 was added to recommend practicing sleep-promoting routines and habits.

Section 6. Glycemic Goals and Hypoglycemia

(https://doi.org/10.2337/dc24-S006)

The title of Section 6 was changed to "Glycemic Goals and Hypoglycemia," and hypoglycemia content throughout the Standards of Care was consolidated into this section.

Recommendation 6.1 was updated to include more frequent glycemic assessment for populations needing closer glycemic monitoring.

The "Glycemic Assessment by A1C" subsection was revised to reflect recent data on the strengths and limitations of the A1C assay and to include a discussion of the benefits and limitations of serum glycated protein assays as alternatives to A1C.

Table 6.2 was updated to outline CGM metrics and recommended glycemic goals.

The subsections "Glucose Lowering and Microvascular Complications" and "Glucose Lowering and Cardiovascular Disease Outcomes" were updated to include evidence on long-term follow-up of clinical trials of tight glycemic management and to put these findings into the context of newer diabetes medications with cardiovascular and renal benefits.

Recommendations 6.8a and 6.8b were added to clarify the clinical scenarios where deintensifying diabetes medications is appropriate, and text in the "Setting and Modifying Glycemic Goals" subsection was added to discuss the rationale for this update.

Recommendations 6.11a, 6.11b, and 6.11c were added to clarify when and how health care professionals should review an individual's hypoglycemia history, awareness, and risk. **Table 6.5**, which provides a summary of hypoglycemia risk factors (formerly in Section 4), was updated to reflect recent evidence. The "Hypoglycemia Risk Assessment" subsection was added to provide the background and rationale for **Table 6.5**.

Several recommendations were added to and updated within the "Hypoglycemia Assessment, Prevention, and Treatment" subsection. Recommendation 6.11d was added to highlight the benefits of continuous glucose monitoring (CGM) use for hypoglycemia prevention. Recommendation 6.12 was revised to provide hypoglycemia treatment guidance inclusive of individuals using automated insulin delivery (AID) systems, and details were added to the text. Recommendation 6.13 was revised to clarify criteria for prescribing glucagon and express preference for glucagon preparations that do not have to be reconstituted. **Table 6.6** was added to summarize currently available glucagon products and their monthly costs. Recommendation 6.14 was added to address the need for patient education for hypoglycemia prevention and treatment, especially for insulin users. Recommendations 6.15 and 6.16 were updated to communicate how hypoglycemic events should inform modification of the diabetes treatment plan and to direct clinicians to use evidence-based interventions to reestablish awareness of hypoglycemia, respectively.

Table 6.7 was added to summarize the components of hypoglycemia prevention and their recommended frequency.

Section 7. Diabetes Technology

(https://doi.org/10.2337/dc24-S007)

Recommendation 7.1 was added to state that people with diabetes should be offered any type of diabetes device (e.g., insulin pens, connected pens, glucose meters, and CGM or AID systems), and Recommendation 7.2 was added to emphasize the need to start CGM early in type 1 diabetes, even at diagnosis, to promote early achievement of glycemic goals.

Recommendation 7.3 was added to emphasize that health care professionals should acquire sufficient knowledge for the use and application of diabetes technology for people with diabetes, and the text has been expanded to discuss the need for both knowledge and competency for interprofessional teams managing diabetes care.

Recommendation 7.8 was modified to align with Section 14, "Children and Adolescents," to support initiation of an insulin pump and/or AID system early for individuals with type 1 diabetes, even at diagnosis.

Recommendation 7.15 was updated to reflect the benefits of intermittently scanned CGM in less intensively treated people with type 2 diabetes.

The text on CGM systems was expanded to include updates on systems that are cleared for integration with AID systems and to include the benefits of CGM use in type 2 diabetes for those using nonintensive insulin therapy and/or not using insulin therapy. In addition, the text was updated to include suggestions to streamline the approach to CGM interpretation by various methods, such as assessing data sufficiency and reviewing glycemic trends to modify therapeutic approaches.

The text on real-time CGM was updated to outline the systems that can be used by pregnant individuals with diabetes, and substances that interfere with CGM device accuracy were updated in the text and in **Table 7.4**.

Recommendation 7.24 was refined to emphasize the usefulness of insulin pens or insulin injection aids for people with dexterity issues or vision impairment.

The text on AID systems was updated to include benefits reported from real-world studies.

Recommendation 7.33 was added to emphasize continuation of personal CGM use in hospitalized individuals with diabetes when clinically appropriate in a hybrid fashion and under an institutional protocol.

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

(https://doi.org/10.2337/dc24-S008)

Language throughout the section was amended to be person centered and to emphasize the importance of weight management within the overall context of the treatment of people with diabetes, and the justification for a weight-based approach to diabetes treatment has been expanded. The recommendations and text pertaining to weight management treatment have been expanded to acknowledge the expected range of benefits across the spectrum of weight loss.

Recommendations 8.2a, 8.2b, and 8.3 were expanded to incorporate additional anthropometric measurements beyond BMI (i.e., waist circumference, waist-to-hip ratio, and/or waist-to-height ratio) to encourage individualized assessments of body fat mass and distribution.

Recommendation 8.6 was added to highlight that approaches to treating obesity should be individualized and that any of the established approaches (i.e., intensive behavioral interventions, pharmacologic treatment, or metabolic surgery) can be considered in people with obesity and diabetes alone or in combination.

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Recommendation 8.8b was updated to suggest counseling strategies to address barriers to access.

Recommendations 8.11a and 8.11b were updated to highlight the effectiveness of weight maintenance programs and to suggest monitoring weight loss progress while providing ongoing support for maintaining goals long term.

Recommendation 8.17 was added to include glucagon-like peptide 1 (GLP-1) receptor agonists or a dual glucose-dependent insulinotropic polypeptide (GIP) and GLP-1 receptor agonist with greater weight loss efficacy as preferred pharmacotherapy for obesity management in people with diabetes.

Recommendation 8.18 was added to address the importance of reevaluation for obesity treatment intensification or deintensification for people with diabetes to reach their weight goals.

The text of the "Metabolic Surgery" subsection was updated to emphasize preventing and addressing therapeutic inertia pertaining to weight management goals in people with obesity and type 2 diabetes.

Recommendation 8.19 was updated in response to growing evidence of the long-term benefits of metabolic surgery treatment in people with obesity and type 2 diabetes.

Recommendation 8.20 now includes a link to accredited metabolic and bariatric surgery centers.

Recommendation 8.25 was added to emphasize the importance of monitoring weight loss progress of individuals who have undergone metabolic surgery. In the case of inadequate progress, potential barriers and additional weight loss interventions should be considered.

Table 8.1 was updated to include the recent FDA approvals and price changes for several obesity pharmacotherapies.

This section is endorsed by The Obesity Society.

Section 9. Pharmacologic Approaches to Glycemic Treatment

(https://doi.org/10.2337/dc24-S009)

Recommendation 9.2 was updated to reflect preference of insulin analogs or inhaled insulin over injectable human insulins to minimize hypoglycemia risk for most adults with type 1 diabetes.

Recommendation 9.3 was added to include early use of CGM for adults with type 1 diabetes, and Recommendation 9.4 was added to indicate consideration for use of AID systems for adults with type 1 diabetes.

Recommendation 9.5 was expanded to include educating adults with type 1 diabetes on how to modify their insulin dose based on concurrent glycemia, glycemic trends, and sick day management.

Recommendation 9.6 was added to suggest prescribing glucagon for individuals taking insulin or at high risk for hypoglycemia.

Recommendation 9.7 was added to emphasize the importance of regular treatment plan evaluation for individuals with diabetes to ensure individualized goals are met.

Recommendation 9.14 was updated to highlight the importance of early combination therapy when shortening the time to attainment of individualized treatment goals for adults with type 2 diabetes.

Recommendation 9.15 was added to reflect that pharmacologic therapies should address both individualized glycemic and weight goals in adults with type 2 diabetes without cardiovascular and/or kidney disease.

Recommendation 9.16 was added to advise consideration of additional glucose-lowering agents for adults with type 2 diabetes not meeting their individualized glycemic goals.

Recommendation 9.17 was added to highlight the importance of treatment intensification and combination of approaches pertaining to weight management and their alignment with glycemic management goals for adults with type 2 diabetes.

Recommendation 9.18 was updated to reflect prioritizing glycemic management agents that also reduce cardiovascular and kidney disease risk in adults with type 2 diabetes and established/high risk of atherosclerotic cardiovascular disease, heart failure, and/or chronic kidney disease.

For adults with type 2 diabetes who have heart failure, Recommendation 9.19 was added to recommend sodium–glucose cotransporter 2 (SGLT2) inhibitors for glycemic management and prevention of heart failure hospitalizations.

Recommendations 9.20 and 9.21 were added to reflect individualized recommendations for individuals with type 2 diabetes and chronic kidney disease.

Recommendation 9.22 was updated to reflect that insulin therapy should be considered at any stage irrespective of other glucose-lowering medications in certain circumstances.

Recommendation 9.23 was updated to include a dual GIP and GLP-1 receptor agonist as an additional option for greater glycemic management that is preferred to insulin, and Recommendation 9.24 was updated to reflect reassessing insulin dosing upon addition or dose escalation of a GLP-1 receptor agonist or a dual GIP and GLP-1 receptor agonist.

Recommendation 9.25 was broadened to include any glucose-lowering agents if justified for additional benefits (e.g., weight management, cardiometabolic, or kidney benefits) to treatment goals.

Recommendation 9.26 was added to suggest reassessing the need and/or dosages for other glucose-lowering agents that are associated with higher risk of hypoglycemia when initiating or intensifying insulin treatment.

Recommendations 9.28 and 9.29 were added to provide guiding principles of care for people with obstacles that may impede their diabetes management.

Figure 9.1 was updated to reflect a terminology change from "hybrid closed-loop technology" to "automated insulin delivery systems."

Table 9.1 was updated to reflect terminology updates, and **Table 9.2** was updated to include counseling people with diabetes about potential for ileus (subcutaneous semaglutide) and to include that dual GIP and GLP-1 receptor agonist treatment is not recommended for individuals with a history of gastroparesis.

Tables 9.3 and **9.4** were updated to reflect changes in cost for several agents.

Section 10. Cardiovascular Disease and Risk Management

(https://doi.org/10.2337/dc24-S010)

Recommendation 10.12 was revised to recommend monitoring of serum creatinine/estimated glomerular filtration rate and potassium within 7–14 days after initiation of treatment with an ACE inhibitor, angiotensin receptor blocker, mineralocorticoid receptor agonist, or diuretic.

Recommendation 10.24 was added to include bempedoic acid treatment for people with diabetes and without established cardiovascular disease who are intolerant to statin therapy. In addition, Recommendation 10.28b recommends bempedoic acid or proprotein convertase subtilisin/kexin type 9 (PCSK9)

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inhibitor therapy with monoclonal antibody treatment or inclisiran siRNA as alternative cholesterol-lowering therapy. A new subsection, "Intolerance to Statin Therapy," was added to expand on these updates.

Recommendation 10.35b has been modified to recommend an interprofessional team approach that includes a cardiovascular or neurological specialist to decide on the length of treatment with dual antiplatelet therapy in people with diabetes after an acute coronary syndrome or ischemic stroke/transient ischemic attack.

Recommendations 10.39a and 10.39b were added to include screening of adults with diabetes for asymptomatic heart failure by measuring a natriuretic peptide level to facilitate the prevention or progression to symptomatic stages of heart failure.

Recommendation 10.40 was modified to include screening for peripheral artery disease with ankle-brachial index testing in asymptomatic people with diabetes aged ≥50 years , microvascular disease in any location, foot complications, or any end-organ damage from diabetes. Peripheral artery disease screening should be considered for individuals with diabetes for ≥10 years or more.

Recommendation 10.42a was updated to recommend either an SGLT2 inhibitor or an SGLT1/2 inhibitor for people with diabetes and established heart failure with preserved or reduced ejection fraction to reduce risk of worsening heart failure and cardiovascular death. Additional text includes a discussion on cardiovascular outcomes trials of the SGLT1/2 inhibitor sotagliflozin.

Recommendations 10.45a–10.45e have been added to address treatment approaches for people with diabetes and heart failure, including the roles of an interprofessional team and pharmacological approaches to prevent heart failure progression and hospitalization.

Recommendation 10.47 was added to suggest including education on risks and signs of ketoacidosis and methods of management and tools for testing in people with type 1 diabetes, ketosis-prone type 2 diabetes, and/or those consuming ketogenic diets treated with SGLT inhibition.

Figure 10.2 was modified to reflect changes in initial blood pressure values and treatment recommendations for confirmed hypertension in nonpregnant people with diabetes.

This section is endorsed by the American College of Cardiology.

Section 11. Chronic Kidney Disease and Risk Management

(https://doi.org/10.2337/dc24-S011)

Section 11 was updated to align with the latest consensus report on diabetes management in chronic kidney disease by the ADA and Kidney Disease: Improving Global Outcomes (KDIGO).

Recommendation 11.4a was updated to include the role of ACE inhibitors or angiotensin receptor blockers in preventing the progression of kidney disease and reducing cardiovascular events.

Recommendation 11.7 was updated to reflect dietary protein intake levels for individuals with stage 3 or higher chronic kidney disease who are currently treated with dialysis.

Figure 11.1 was updated and illustrates chronic kidney disease progression, frequency of visits, and referral to nephrology according to glomerular filtration rate and albuminuria. **Figure 11.2** was added to present a holistic approach for improving outcomes in individuals with diabetes and chronic kidney disease.

Section 12. Retinopathy, Neuropathy, and Foot Care

(https://doi.org/10.2337/dc24-S012)

Language in Recommendations 12.1, 12.2, 12.5, and 12.7 was refined to be more actionable by health care professionals.

Recommendation 12.6 was updated to indicate the application of FDA-approved artificial intelligence algorithms, and the text was updated with approved artificial intelligence algorithm details and clinical trials.

Recommendations 12.15 and 12.16 were added to address vision loss from diabetes, and the text was expanded to discuss complications of vision loss and the importance of evaluation and rehabilitation.

The text in the "Neuropathy" subsection was updated to discuss the limited data available to support use of lidocaine 5% plaster/patch and gastric stimulation as efficacious therapies for people with diabetes.

In the "Foot Care" subsection, Recommendation 12.27 was updated to include toe pressures when screening for peripheral artery disease. In addition, Recommendation 12.28 was amended to include the importance of an interprofessional approach facilitated by a podiatrist with other appropriate team members for individuals who have foot ulcers and high-risk feet (e.g., individuals on dialysis, with Charcot foot, with prior ulcer or amputation history, or with peripheral artery disease).

Table 12.2 was updated to include "Fish skin graft" under "Acellular matrix tissues" for advanced wound therapies.

Section 13. Older Adults

(https://doi.org/10.2337/dc24-S013)

Recommendation 13.6 was modified to align with the revised Medicare reimbursement rules allowing CGM for adults with type 2 diabetes on any insulin.

Recommendations 13.8a, 13.8b, and 13.8c were amended to highlight the heterogeneity present for treatment goals for older adults, especially those with intermediate or complex health conditions who need to personalize glycemic goals.

Recommendations 13.16a–13.16d were updated to highlight the need to deintensify therapy, most particularly hypoglycemia-causing medications (such as insulin, sulfonylureas, and meglitinides). These recommendations also suggest switching to classes of glucose-lowering medications with a lower risk of hypoglycemia to meet individualized glycemic goals. In addition, treatment plans for older adults with diabetes and other comorbidities (e.g., atherosclerotic cardiovascular disease, heart failure, and/or chronic kidney disease) should include agents that reduce cardiorenal risk, regardless of glycemia.

Section 14. Children and Adolescents

(https://doi.org/10.2337/dc24-S014)

Recommendation 14.4 was added to state the need for insulin dosing adjustments according to meal composition.

In the "Psychosocial Care" subsection, Recommendation 14.10 was revised to include screening details for psychosocial and behavioral health concerns and for appropriate referral when indicated, and Recommendation 14.12 was updated to clarify diabetes distress and lower engagement in diabetes self-management behavior.

Recommendation 14.53 was modified to state "at least" a 7–10% decrease in excess weight for youth with overweight and obesity with type 2 diabetes when

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recommending developmentally and culturally appropriate comprehensive lifestyle programs.

Recommendations 14.68 and 14.70 were updated to include consideration for empagliflozin prior to initiating and/or intensifying insulin therapy plans for glycemic management, and **Fig. 14.1** was updated to include empagliflozin.

Recommendation 14.69 was added to suggest consideration for medication-taking behavior and the medications' effects on weight for youth with overweight or obesity and type 2 diabetes.

The term "severe obesity" in Recommendation 14.72 was changed to "class 2 obesity or higher (BMI >35 kg/m^2 or 120% of 95th percentile for age and sex, whichever is lower)" to provide greater details for adolescents being considered for metabolic surgery.

Recommendation 14.78 was updated to clarify protein intake according to age for those with nephropathy.

The new subsection "Substance Use in Pediatric Diabetes" includes Recommendations 14.106 and 14.107 to discourage initiation of smoking (tobacco and electronic cigarettes) and to encourage smoking cessation. The text was expanded to discuss the adverse health effects of smoking and exposure to secondhand smoke for youth with diabetes.

In the "Transition from Pediatric to Adult Care" subsection, Recommendations 14.108 and 14.109 were revised to reflect the role of interprofessional teams in the transition from pediatric to adult care and to be more person centered. Recommendation 14.110 was added to give direction for the coordination between pediatric diabetes specialists and youth with diabetes and their caregivers on the timing of transfer to adult care.

Section 15. Management of Diabetes in Pregnancy

(https://doi.org/10.2337/dc24-S015)

"Reproductive potential" was changed to "childbearing potential" throughout the section to be more specific. "Women" was changed to "individuals" throughout the section, except for instances mentioning the title of a published study, to be more inclusive.

In the "Preconception Care" subsection, Recommendation 15.4 was updated to highlight the approach of interprofessional care and the need for inclusion of an endocrinology health care professional, and Recommendation 15.5 was expanded to include physical activity for preconception care.

In the "Glycemic Goals in Pregnancy" subsection, Recommendation 15.7 was modified to emphasize that all pregnant individuals with diabetes should monitor fasting, preprandial, and postprandial blood glucose levels, and Recommendation 15.10 was updated to include CGM use for pregnant individuals with type 1 diabetes.

The text in "Insulin Physiology" was expanded to include information about changes to basal and bolus insulin requirements as pregnancy progresses for individuals with preexisting diabetes.

The text in "Glucose Monitoring" was updated to differentiate lower limits of glucose thresholds based on blood and sensor glucose monitoring.

Language was added to "Continuous Glucose Monitoring in Pregnancy" to encourage individualization for CGM use in pregnant individuals with type 2 diabetes or gestational diabetes mellitus (GDM). Language was also added to clarify the international consensus on time in range for pregnant individuals with type 2 diabetes or GDM.

Recommendation 15.15 was updated to clarify that metformin and glyburide, individually or in combination, should not be used as first-line agents for treating hyperglycemia in pregnancy.

Language was added to the "Preeclampsia and Aspirin" subsection to note that individuals with GDM may also be candidates for aspirin therapy if they have a single high risk factor or multiple moderate risk factors.

Recommendation 15.27 was updated to encourage breastfeeding efforts for all individuals with diabetes who are postpartum.

The "Postpartum Care" subsection was updated to explain that a preconception evaluation is needed for individuals with childbearing potential who have prediabetes or a history of GDM.

Section 16. Diabetes Care in the Hospital

(https://doi.org/10.2337/dc24-S016)

Recommendation 16.2 was expanded to emphasize the need for personalized approaches in the emergency department, intensive care unit and nonintensive care unit wards, gynecology-obstetrics/delivery units, dialysis suites, and psychiatric wards. The text has been expanded to encourage institutions to perform regular audits to monitor proper use of protocols and to ensure institute educational/training programs keep staff up to date.

Recommendation 16.4 was updated to reflect that insulin and other therapies should be initiated or intensified for treatment of persistent hyperglycemia starting at a threshold of 180 mg/dL (10.0 mmol/L).

Recommendation 16.5a was added to delineate the glycemic goals for most critically ill individuals with hyperglycemia (target glucose range of 140–180 mg/dL [7.8–10.0 mmol/L]), and Recommendation 16.5b was updated to suggest more stringent goals (110–140 mg/dL [6.1–7.8 mmol/L]) for selected critically ill individuals if these goals can be achieved without significant hypoglycemia.

Recommendations 16.6 and 16.7 were added to indicate continued use of personal CGM devices and use of AID systems in conjunction with CGM, respectively, in the inpatient setting if clinically appropriate, with confirmatory point-of-care glucose measurements for insulin dosing decisions and hypoglycemia assessment, if resources and training are available, and according to an institutional protocol. The narrative has also been expanded to recommend a personalized approach for achieving glycemic goals throughout the hospital stay.

In the "Perioperative Care" subsection, a statement was added about the safe use of GLP-1 receptor agonists in the perioperative period.

The "Glucose-Lowering Treatment in Hospitalized Patients" subsection discusses the evidence on the coadministration of a low dose of basal insulin analog while on intravenous insulin infusion.

For the management of diabetic ketoacidosis and hyperglycemic hyperosmolar state, the text has been expanded to include a nurse-driven protocol with a variable rate based on glucose values as an option.

Recommendation 16.11 was added to indicate the use of SGLT2 inhibitors for individuals with type 2 diabetes hospitalized with heart failure during hospitalization and that SGLT2 inhibitors should be continued after recovery from acute illness if no contraindications are present.

Section 17. Diabetes Advocacy

(https://doi.org/10.2337/dc24-S017)

The Care of Young Children With Diabetes in the Childcare and Community Setting advocacy statement has been updated.

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