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Intended for healthcare professionals Practice Guidelines BMJ 2022; 377 doi: (Published 18 May 2022) Cite this as: BMJ 2022;377:o775 Find support, ask questions and share your experiences in the forumVisit the ForumWelcome to Diabetes.co.uk - a community of people with diabetes, family members, friends, supporters and carers, offering their own support and first hand knowledge. Browse guides, news and research, and learn more about diabetes from a community of over 365,000 members.The Diabetes Forum has been demonstrated to be the most actively used social medium for people with diabetes.[A] Come and say hi!ParentsInsulin pumpersPrediabetesType 1.5/LADAReactive hypoglycemiaType 3cGestational diabetesPregnancyWeight lossFastingKetogenicLow carbLow calorieVegetarianGluten-freeFind trusted information, advice and support to take care of your physical and emotional health, manage your blood sugar levels, and prevent complications. 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Changes include new data on: Finerenone and its effects in people with type 2 diabetes and chronic kidney disease on cardiovascular outcome SGLT2 inhibitors and their effects in people with type 2 diabetes on heart failure and renal outcomes New information on calculating eGFR and inclusion of race for kidney disease diagnosis These amendments were driven by recently published research and were crafted and approved by the ADA's Professional Practice Committee, which is responsible for developing the Standards of Care. Updates to Section 10, Cardiovascular Disease and Risk Management, have also been reviewed and approved by the American College of Cardiology, which endorses this section. The Living Standards of Care are available immediately online at Diabetes Care®. Updates to the Living Standards of Care include information added to the following sections: Section 10 has been updated to include the evidence from Empagliflozin Outcome Trial in Patients With Chronic Heart Failure With Preserved Ejection Fraction (EMPEROR-Preserved), the Dapagliflozin in PRESERVED Ejection Fraction Heart Failure (PRESERVED-HF) trial, the Efficacy and Safety of Finerenone in Subjects With Type 2 Diabetes Mellitus and Diabetic Kidney Disease (FIDELIO-DKD) trial, and the Efficacy and Safety of Finerenone in Subjects With Type 2 Diabetes Mellitus and the Clinical Diagnosis of Diabetic Kidney Disease (FIGARO-DKD) trial. Section 11 has been amended to include the evidence from Empagliflozin Outcome Trial in Patients With Chronic Heart Failure With Preserved Ejection Fraction (EMPEROR-Preserved) trial, the Efficacy and Safety of Finerenone in Subjects With Type 2 Diabetes Mellitus and Diabetic Kidney Disease (FIDELIO-DKD) trial, and the Efficacy and Safety of Finerenone in Subjects With Type 2 Diabetes Mellitus and the Clinical Diagnosis of Diabetic Kidney Disease (FIGARO-DKD) trial, as well as the NKF-ASN Task Force recommendations on reassessing the inclusion of race in diagnosing kidney disease. "This is the fifth year that we are able to update the Standards of Care after it has been published through our Living Standards of Care updates, making it possible to give diabetes care providers the most important information and the latest evidence relevant to their practice," said Dr. Robert Gabbay, chief scientific and medical officer for the ADA. "With approximately 537 million adults living with diabetes around the world, it's important to equip providers with the newest research through our guidelines as we learn more." The Standards of Care provides the latest in comprehensive, evidence-based recommendations for the diagnosis and treatment of children and adults with type 1, type 2, or gestational diabetes; strategies to improve the prevention or delay of type 2 diabetes; and therapeutic approaches that reduce complications and positively affect health outcomes. In 2018, the ADA began updating and revising the online version of the Standards of Care throughout the year with annotations for new evidence or regulatory changes that merit immediate incorporation. The online version of the Standards of Care now includes any research updates or policy changes that are approved throughout 2022. The complete, annotated Standards of Care, which includes updates made today, can be accessed online at Diabetes Care. The Abridged Standards of Medical Care in Diabetes has also been updated and can be accessed online at Clinical Diabetes®. # # # , About Diabetes CareDiabetes Care, a monthly journal of the ADA, is the highest-ranked, peer-reviewed journal in the field of diabetes treatment and prevention. Dedicated to increasing knowledge, stimulating research, and promoting better health care for people with diabetes, the journal publishes original articles on human studies in clinical care, education, and nutrition; epidemiology, health services, and psychosocial research; emerging treatments and technologies; and pathophysiology and complications. Diabetes Care also publishes the ADA's recommendations and statements, clinically relevant review articles, editorials, and commentaries. Topics covered are of interest to clinically oriented physicians, researchers, epidemiologists, psychologists, diabetes care and education specialists, and other health care professionals. About the American Diabetes Association The American Diabetes Association (ADA) is the nation's leading voluntary health organization fighting to bend the curve on the diabetes epidemic and help people living with diabetes thrive. For 81 years, the ADA has driven discovery and research to treat, manage, and prevent diabetes while working relentlessly for a cure. Through advocacy, program development, and education we aim to improve the quality of life for the over 133 million Americans living with diabetes or prediabetes. Diabetes has brought us together. What we do next will make us Connected for Life. To learn more or to get involved, visit us at diabetes.org or call 1-800-DIABETES (1-800-342-2383). Join the fight with us on Facebook (American Diabetes Association), Spanish Facebook (Asociación Americana de la Diabetes), LinkedIn (American Diabetes Association), Twitter (@AmDiabetesAssn), and Instagram (@AmDiabetesAssn). Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt — remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution — You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. When Eczema Isn't Red: The Reality of Atopic Dermatitis on Black Skin Join our millions of social followers Follow us for more daily health and wellness tips! FOLLOW US Trending Health Topics Health's team of medical experts, writers, and editors are committed to ensuring our content is evidence-based, up-to-date, and comprehensive. I hope to use my expertise to help support those who often might feel left out of healthcare to begin their wellness journey. I am passionate about relaying medical information to the public in a way that they can understand, utilize, and feel empowered in doing so. Many of our relationships with food are harmed by misinformation. Having accurate nutrition information helps empower us. I love using my background as a research scientist to write about complex health and science topics in a manner that is accessible to all. The internet abounds with health content, and I aim to bring thoughtful and accessible information on health and wellness to all readers. Knowledge is power. Everyone deserves access to health information that can educate and empower them to make informed decisions about their care. Our Integrity Promise Health's editorial process follows these key steps to create accurate health content you can trust. Written and edited by health experts and journalists Backed by science-based evidence and research Medically reviewed by board-certified healthcare providers Updated to reflect the latest health and wellness information Learn about our process There are a number of major risk factors for type 2 diabetes. Although some diabetic risks come from our genetics, many are preventable. Unfortunately, many people do not know what these are or clearly understand the signs of them. For this reason, below is a list of top type 2 diabetes risk factors. Also see: the symptoms of diabetes Obesity Obesity is the major type 2 diabetes risk, with millions of people throughout the world facing obesity. Almost a quarter of adults in the UK are recorded as being obese. Furthermore, the numbers continue to climb, both amongst adults and children. The number of children being diagnosed with type 2 diabetes caused by obesity is climbing everywhere. In the UK, about one in three children are classed as obese. Read more on diabetes and obesity Lack of exercise and sedentary way of life Living a sedentary lifestyle without sufficient exercise is seriously damaging to health. Being inactive often leads to being overweight, which can lead to pre-diabetes and type 2 diabetes. Staying active decreases insulin resistance and helps bodily insulin to be more effective. Read more on diabetes and obesity Eating a 'Western' diet Eating unhealthily is a major cause of type 2 diabetes, as over 90 per cent of type 2 diabetics are overweight. A so called Western diet, with a reliance on processed foods, poor quality fats and little fibre content, is thought to be a major contributor to diabetes and metabolic syndrome Eating well, in conjunction with exercise, can prevent or reverse the development of type 2 diabetes. Picking a healthy diet can sometimes be confusing, with so many mixed messages, and its often not helped by so-called diabetic food which are not necessarily a healthier option. High blood pressure High cholesterol and blood pressure levels are risks for many diseases, one of which is type 2 diabetes. Both are also major symptoms of pre-diabetes Gestational diabetes Gestational diabetes is another major risk, and affects about 2 to 5 per cent of women who fall pregnant. Those women who suffer from it face greater later-life risks of developing type 2 diabetes, as do their children. Family history Having a close family member with type 2 diabetes can raise your own risk of developing the condition. Unfortunately, you cannot do much about your genetic history, but you can be ready by being aware of the symptoms of type 2 diabetes Also, many ethnic minorities are more prone to suffer from diabetes. For more on this, please read diabetes and ethnicity Aging As the population of the world ages, diabetes rates are soaring. Unfortunately, the older we are, the greater the risk of developing type 2 diabetes is. The pancreas, according to some scientists, begins to produce insulin less effectively as we age. Furthermore, bodily resistance to insulin increases with age. error: Alert: Content is protected !! The clinical summary below aims to offer practical advice for healthcare professionals when prescribing SGLT2i therapies for the treatment of T2DM. Please refer to the relevant individual SmPC before prescribing any SGLT2i therapy: Canagliflozin | Dapagliflozin | Empagliflozin | Ertugliflozin The clinical summary below aims to offer practical advice for healthcare professionals when prescribing SGLT2i therapies for the treatment of T2DM. Please refer to the relevant individual SmPC before prescribing any SGLT2i therapy: Canagliflozin | Dapagliflozin | Empagliflozin | Ertugliflozin The clinical summary below aims to offer practical advice for healthcare professionals when prescribing SGLT2i therapies for the treatment of T2DM. Please refer to the relevant individual SmPC before prescribing any SGLT2i therapy: Canagliflozin | Dapagliflozin | Empagliflozin | Ertugliflozin The clinical summary below aims to offer practical advice for healthcare professionals when prescribing SGLT2i therapies for the treatment of T2DM. 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Please refer to the relevant individual SmPC before prescribing any SGLT2i therapy: Canagliflozin | Dapagliflozin | Empagliflozin | Ertugliflozin Dapaglifloz | Dose | Safety | Side-effects | NICE Indication: T2D glycaemic control ↓eGFR: ≥ 45 = 10mg| < 45 = not recommended for glycaemic control Indication: Chronic HFrEF with or without T2D ↓eGFR: ≥ 15 = 10mg| < 15 = Continue but don't initiate Indication: Chronic Kidney Disease with or without T2D ↓eGFR: ≥ 15 = 10mg| < 15 = Continue but don't initiate SOURCE: @Visualmedapp Dapagliflozin | Dose | Safety | Side-effects | NICE Indication: T2D glycaemic control ↓eGFR: ≥ 45 = 10mg| < 45 = not recommended for glycaemic control Indication: Chronic HFrEF with or without T2D ↓eGFR: ≥ 15 = 10mg| < 15 = Continue but don't initiate Indication: Chronic Kidney Disease with or without T2D ↓eGFR: ≥ 15 = 10mg| < 15 = Continue but don't initiate SOURCE: @Visualmedapp Canagliflozin | Dose | Safety | Side-effects | NICE Indication: T2D glycaemic control ↓eGFR: ≥ 60 = 100mg, titrate → 300mg if required | 45 - 59 = Use 100mg only | < 45 = not recommended for glycaemic control Indication: T2D + Diabetic Kidney Disease ↓eGFR: ≥ 30 = Initiate and continue 100mg | < 30* = Continue but do not initiate 100mg | Dialysis = STOP *With urinary albumin/creatinine ratio > 30 mg/mol SOURCE: @Visualmedapp Empagliflozin | Dose | Safety | Side-effects | NICE Indication: T2D glycaemic control↓eGFR: ≥ 60 = Initiate 10mg, titrate → 25mg if required | 45 - 60 = Continue 10mg only but do not initiate | < 45 = STOP Indication: T2D AND estalished cardiovascular disease↓eGFR: ≥ 60 = Initiate 10mg, titrate → 25mg if required | 30 - 60 = Initiate or continue 10mg only | < 30 = STOP Indication: Chronic HFrEF with or without T2D↓eGFR: ≥ 20 = Initiate or continue 10mg | < 20 = STOP SOURCE: @Visualmedapp Ertugliflozin | Dose | Safety | Side-effects | NICE ↓eGFR: Initiate only if eGFR ≥ 60 = 5mg, titrate → 15mg if required | < 45 = STOP SOURCE: @Visualmedapp Empagliflozin | Dose | Safety | Side-effects | NICE Indication: T2D glycaemic control↓eGFR: ≥ 60 = Initiate 10mg, titrate → 25mg if required | 45 - 60 = Continue 10mg only but do not initiate | < 45 = STOP Indication: T2D AND estalished cardiovascular disease↓eGFR: ≥ 60 = Initiate 10mg, titrate → 25mg if required | 30 - 60 = Initiate or continue 10mg only | < 30 = STOP Indication: Chronic HFrEF with or without T2D↓eGFR: ≥ 20 = Initiate or continue 10mg | < 20 = STOP SOURCE: @Visualmedapp Dapagliflozin | Dose | Safety | Side-effects | NICE Indication: T2D glycaemic control ↓eGFR: ≥ 45 = 10mg| < 45 = not recommended for glycaemic control Indication: Chronic HFrEF with or without T2D ↓eGFR: ≥ 15 = 10mg| < 15 = Continue but don't initiate Indication: Chronic Kidney Disease with or without T2D ↓eGFR: ≥ 15 = 10mg| < 15 = Continue but don't initiate SOURCE: @Visualmedapp Canagliflozin | Dose | Safety | Side-effects | NICE Indication: T2D glycaemic control ↓eGFR: ≥ 60 = 100mg, titrate → 300mg if required | 45 - 59 = Use 100mg only | < 45 = not recommended for glycaemic control Indication: T2D + Diabetic Kidney Disease ↓eGFR: ≥ 30 = Initiate and continue 100mg | < 30* = Continue but do not initiate 100mg | Dialysis = STOP *With urinary albumin/creatinine ratio > 30 mg/mol SOURCE: @Visualmedapp Type 2 diabetes is a chronic condition that occurs when your body isn't able to properly use insulin. Insulin is a hormone made by the pancreas. People with type 2 diabetes either can't produce enough insulin, have cells that are resistant to the insulin they make, or have a combination of both. Your blood glucose (blood sugar) rises when your body lacks insulin. The way your body uses insulin can seem complicated. Your body converts the nutrients from your food into glucose. The glucose enters your bloodstream, and then your pancreas is able to release insulin into your bloodstream. Insulin uses glucose as energy to fuel your body or store it for later use. That process doesn't work as it usually does if you have type 2 diabetes. Your cells may be resistant to the insulin your pancreas produces, or your pancreas might not produce enough insulin. The glucose remains in your bloodstream instead of your body using it as energy. High glucose levels in the blood can affect your organs and tissues over time. Getting treatment for type 2 diabetes is important. Complications like heart disease, kidney disease, nerve damage, and vision loss can happen if left untreated. Type 2 diabetes is a common disease that you can manage with the right treatment and lifestyle changes. Type 2 diabetes is the most common type of diabetes mellitus (diabetes), accounting for 95% of all cases. There are subtypes of type 2 diabetes, which include: Mild age-related diabetes (MARD): This is the most common subtype of type 2 diabetes and represents 39% of cases. People with MARD have some difficulty controlling their blood sugar levels. They generally have few complications. The risk of MARD usually increases with age.Mild obesity-related diabetes (MOD): MOD usually affects people who have obesity, representing nearly 22% of cases. People with MOD do not resist insulin. MOD is generally a mild form of type 2 diabetes and causes very few complications.Severe insulin-deficient diabetes (SIDD): This subtype represents about 18% of cases. People with SIDD generally are young and have a healthy weight. They produce little insulin and may have a poor metabolism. Common complications of SIDD are blindness and nerve damage. Severe insulin-resistant diabetes (SIRD): SIRD accounts for about 15% of cases. People with SIRD may have obesity and can have insulin resistance. Kidney and liver issues are common. Some people may have prediabetes. This health condition occurs when your blood sugar is slightly higher than normal but not yet in the range for type 2 diabetes. Prediabetes affects one in three adults in the United States. You can reverse prediabetes through lifestyle changes, such as managing weight, eating nutritious foods, and exercising regularly. You may experience a wide range of type 2 diabetes symptoms. These include: Blurry visionDry skinFatigue and weaknessFeeling very hungry or thirstyFrequent urinationIrritabilityPain, tingling, or numbness in your hands and feetSores, cuts, and bruises that are slow to healUnintentional weight loss Symptoms can sometimes be so mild that you don't even notice any changes in your health. Approximately half of all Americans with type 2 diabetes are unaware of their health condition. The primary cause of type 2 diabetes is insulin resistance. Other factors can also increase your risk of type 2 diabetes—unlike type 1 diabetes, which is not preventable. Risk factors include: Age: Type 2 diabetes affects all ages. People older than 45 are more likely to develop the disease.Family history: Type 2 diabetes is genetic. You are at a higher risk of type 2 diabetes if your family members have the disease.Gestational diabetes: This type of diabetes occurs when you have high blood sugar levels when you are pregnant. Blood sugar levels usually return to normal after giving birth. Gestational diabetes may increase your risk of type 2 diabetes later in life.High blood pressure: Some medications that treat high blood pressure can increase your risk.Low HDL cholesterol: Having low HDL ("good") cholesterol can increase your risk.Physical activity: A lack of exercise puts you at risk of type 2 diabetes. Getting regular exercise can keep your blood sugar low and help your body convert glucose into energy.Polycystic ovary syndrome (PCOS): This hormonal disorder that affects the ovaries. People with PCOS may also have insulin resistance. About half of people with PCOS older than 40 have type 2 diabetes.Smoking: People who smoke are 30% to 40% more likely to have type 2 diabetes than non-smokers.Weight: Obesity has been linked to type 2 diabetes. A healthcare provider can use a few tests that measure your blood sugar levels. They may repeat their testing measures or order multiple tests to confirm or rule out a type 2 diabetes diagnosis. It's best to only receive a diagnosis from a healthcare provider using one of the following tests. Don't diagnose yourself with type 2 diabetes using over-the-counter (OTC) blood testing equipment, like a blood glucose meter. A healthcare provider may ask you to take a fasting plasma glucose (FPG) test. This test requires you to fast for at least eight hours. It's usually best to schedule an FPG test early in the morning so you can fast overnight. You will have to skip breakfast, but you are able to sip on water. A healthcare provider will draw your blood. They will test the blood sample to check your blood glucose levels. Two FPG tests that show a blood glucose level of 126 milligrams (mg) or higher of glucose per deciliter (dL) of blood indicate diabetes. An A1C test measures your average blood sugar levels over the last three months from whenever you take it. You do not need to fast before receiving an A1C test, in contrast to the FPG test. You will give a blood sample, which is usually drawn from a vein in your arm. Your test results will indicate what percentage of your blood proteins are coated with sugar. Normal A1C levels are less than 5.7%, prediabetes is 5.7% to 6.4%, and diabetes is 6.5% or higher. A healthcare provider may sometimes choose to do a random plasma glucose (RPG) test to measure blood sugar levels. This test does not require fasting. A healthcare provider may ask you to take it at any point in the day. They can determine an official diabetes diagnosis if you have 200 mg or higher of glucose per dL of blood. An oral glucose tolerance test (OGTT) diagnoses prediabetes and diabetes. This test requires you to fast overnight before your blood is drawn. A healthcare provider will take a blood sample and ask you to consume a sugary drink. They will repeatedly draw your blood over two to three hours. An OGTT measures how your blood sugar levels respond to the sugary drink. If you have 200 mg or more of glucose per dL of blood after two hours, it is considered diabetes. Urine tests were historically more common to use than blood tests. However, the results are now less accurate than blood test results and are not often used to diagnose diabetes. A healthcare provider may still use a urine test to measure blood sugar if there is any difficulty drawing your blood. They might also use a urine test as an alternative to a diabetes screening. The goal of treatment is to bring your blood sugar levels down and keep them in a healthy range. Type 2 diabetes treatments can vary based on the severity of your condition, your lifestyle, and your overall health. Some people with type 2 diabetes take oral medications to keep their blood sugar in control. Insulin injections are more common for people with type 1 diabetes. A healthcare provider may offer insulin injections if other treatments aren't working for you. You can often manage your blood sugar by making healthy lifestyle changes, such as: Eating a nutritious diet: A heart-healthy diet helps manage diabetes. Focus on fruits, vegetables, whole grains, lean proteins, and non- or low-fat dairy to keep your blood sugar in check. The American Diabetes Association (ADA) advises following their Diabetes Plate Method. This method involves filling half your plate with non-starchy vegetables, a quarter with lean proteins (e.g., chicken or fish), and a quarter with carbs (e.g., beans and whole grains). Getting regular exercise: Staying active can keep your blood sugar low. Walking, bike riding, and strength training are good options. What's most important is finding exercise that is enjoyable and accessible. Losing weight, if needed: In some cases, obesity can be linked to high blood sugar levels. A healthcare provider may suggest losing a small amount of weight through a healthy diet and moderate exercise. Nearly 90 million adults in the United States have prediabetes. About 84% of these people have no idea their blood sugar is higher than average. It's possible to stop prediabetes and prevent it from progressing into type 2 diabetes. The best way to prevent type 2 diabetes is to shift toward a healthier lifestyle. You can try taking some steps to lower your risk, such as: Building a support system to hold you accountable to your goals Eating a low-fat diet that is high in fruits, vegetables, whole grains, and lean proteins Exercising regularly Keeping track of your health goals Limiting tobacco and alcohol use The National Diabetes Prevention Program offers a Lifestyle Change Program. This program pairs you with a health coach who helps you change your lifestyle. The coaches can counsel you on adopting a heart-healthy diet, fitting daily physical activity into your schedule, and reducing stress. Some programs are free. Other programs may have a fee, but some insurance plans can help you cover the cost. People with type 2 diabetes may be at risk for other health conditions that can affect their blood sugar levels and overall health. Some of these related conditions include: Chronic kidney disease (CKD): This occurs when your kidneys gradually lose function. CKD can lead to kidney failure if untreated. The disease affects nearly 25% of people with type 2 diabetes. Heart disease: Heart disease may occur in people with type 2 diabetes, affecting about 32.2% of people with the disease. Hyperlipidemia: This refers to a high amount of fat in your blood. Hyperlipidemia impacts more than 75% of people with type 2 diabetes. Diabetes may lower your HDL cholesterol and raise your LDL ("bad") cholesterol and triglycerides. Keeping your blood sugar level within a healthy range can help. Hypertension: Some evidence suggests that hypertension (high blood pressure) affects more than 80% of people with type 2 diabetes. Hypertension also increases your risk of heart disease. Obesity: Obesity is a common risk factor for type 2 diabetes. About 78% of people with type 2 diabetes are overweight or obese. Managing your weight can sometimes help prevent or treat type 2 diabetes. Type 2 diabetes can impact your physical and emotional health. Getting early treatment can improve your symptoms and overall quality of life. You may experience sadness or frustration from time to time if you have a chronic disease. It's OK to feel this way, and it's important to know these feelings are normal. You don't have to deal with type 2 diabetes alone. There are ways to cope with your emotions. Some ways to manage your overall health include: Cooking healthy meals with your loved onesEngaging in your favorite hobbies and spending time with family and friendsFinding a friend to exercise withKeeping in contact with a healthcare provider to ensure you are keeping your blood sugar in controlListening to comforting music and practicing meditation or deep breathingReaching out to a mental healthcare provider if you need additional support Type 2 diabetes can be a life-changing diagnosis. Making healthy changes can help you live a fulfilling life. People with type 2 diabetes do not produce enough or resist insulin. Your blood sugar rises as a result and leaves you at risk for serious complications if untreated. Getting a diagnosis and receiving proper treatment can help you manage type 2 diabetes. You cannot reverse type 2 diabetes, but medication and lifestyle changes can lower your blood sugar. Thanks for your feedback! Learn about the latest clinical practice standards to diagnose and manage diabetes in the American Diabetes Association's 2022 Standards of Medical Care in Diabetes. Every year, the American Diabetes Association (ADA) publishes the Standards of Medical Care in Diabetes to inform health care professionals about the latest research evidence on the diagnosis and management of diabetes. A group of clinical practice and research experts developed the Standards of Care by reviewing new evidence about all the scientific fields that are involved in effectively managing diabetes. Important Updates This year, the ADA revised nearly all the sections in the Standards of Care, including recommendations for diabetes screening diagnosis, prevention, evaluation, and management of comorbidities patient education technology and glycemic assessment weight management care for special populations, such as children and older people The updated Standards of Care also emphasizes a patient-centered approach to improve medication adherence and management, reviews social and financial barriers of patients, and suggests in-person or online medical and community resources. Below are some specific updates in this year's Standards of Care. Screening for diabetes All adults without risk factors should be screened with a test for prediabetes and type 2 diabetes starting at age 35, instead of age 45. The new Standards of Care also emphasizes screening with a fasting glucose test for undiagnosed diabetes in all women who are planning to become pregnant, especially if they have risk factors. For unplanned pregnancies, women should be screened at the first prenatal visit. The recommendation to screen for gestational diabetes between 24 and 28 weeks has not changed. Caring for patients with overweight or obesity Adult patients who have overweight or obesity, including older patients, should enroll in a lifestyle behavior-change program to prevent diabetes and its complications. They should receive guidance on healthy meal planning based on both food quantity and nutrition levels. The Standards of Care also shares information about new medicines approved by the FDA for managing obesity, such as an oral hydrogel and semaglutide. Encouraging vaccines Not surprisingly, the new Standards of Care offers recommendations and guidance about vaccines—including the COVID-19 and flu vaccines—for patients with diabetes, especially since obesity and diabetes are important risk factors for severe COVID-19. Monitoring patients' cognitive capacity or impairment The Standards of Care has a new section about the importance of monitoring patients' cognitive capacity or impairment. It recommends referring patients for formal assessment if needed, especially children, patients with hypoglycemia, and older patients. Changes in a patient's cognitive capacity or signs of cognitive impairment can increase the risk of hypoglycemia, and severe hypoglycemia increases the risk of dementia. Improving hypoglycemia awareness Hypoglycemia unawareness—or hypoglycemia-associated autonomic failure—is described as an "urgent medical issue" in patients with type 1 diabetes, as well as in patients with type 2 diabetes with severe insulin deficiency. The new Standards of Care highlights evidence showing that relaxing glucose targets for a few weeks can improve hypoglycemia awareness in many patients. Training patients and caregivers in technologies The new Standards of Care underscores the importance of patients and caregivers helping to select devices, receiving ongoing training and education, and being evaluated on their skills in using the devices and the data from those devices. The new Standards of Care also emphasizes that people using continuous glucose monitoring devices—scanners able to measure glucose levels over time, usually inserted in the abdomen or the upper arm—must always have access to blood glucose monitoring devices, which are often more accurate devices but require a finger prick. Managing risk of comorbidities and complications Comorbidities and risk of complications are now key elements for treatment decisions. While metformin has been the first choice for managing diabetes, health care professionals may now use GLP-1 receptor agonists or SGLT2 inhibitors in addition to or instead of metformin. These medicines can be prescribed to patients with diabetes who have or are at risk for atherosclerosis, heart failure, or chronic kidney disease (CKD) to help reduce cardiovascular events and disease progression. Health care professionals may also use a nonsteroidal mineralocorticoid receptor antagonist (finerenone) when they cannot use SGLT2 inhibitors. Additional recommendations for managing hypertension and high cholesterol are also included in the updated Standards of Care. To learn more about the methodology, evidence, or other resources related to the Standards of Care, visit the ADA's Practice Guidelines Resources. Your clinical experience can provide valuable insights about managing diabetes that can help everyone. Use the comments section to share your thoughts about the new Standards of Care. Duality of Interest. M.J.D. has acted as a consultant, advisory board member, and speaker for Boehringer Ingelheim, Eli Lilly, Novo Nordisk, and Sanofi, an advisory board member and speaker for AstraZeneca, an advisory board member for Janssen, Lexicon, Pfizer, and ShouTi Pharma, and as a speaker for Napp Pharmaceuticals, Novartis, and Takeda Pharmaceuticals International. Her institution has received grants from Novo Nordisk, Sanofi, Eli Lilly, Boehringer Ingelheim, AstraZeneca, and Janssen. V.R.A. has served as a consultant for Applied Therapeutics, Duke, Fractyl, Novo Nordisk, Pfizer, and Sanofi. V.R.A.'s spouse is an employee of Janssen and a former employee of Merck. V.R.A.'s employer institution has received research funding for her role as investigator on clinical trials from Applied Therapeutics, Medpace, Eli Lilly, Fractyl, Premier, Novo Nordisk, and Sanofi. B.S.C. is a nominating work group member of the American Academy of Physician Assistants. R.A.G. is an advisor to Vida and Lark. J.G. is a consultant for AstraZeneca, Pfizer, Boehringer Ingelheim/Lilly, Bayer, Sanofi, Anji, Vertex/ICON, and Valo. She conducts research at her institution for Boehringer Ingelheim/Lilly, Merck, and Roche. N.M.M. is under a license agreement between Johns Hopkins HealthCare Solutions and Johns Hopkins University. She and the university are entitled to royalty distributions related to an online diabetes prevention program. S.E.R. participated in at least one advisory board for Bayer, Traverse, and AstraZeneca. Her employer receives industry research support from Bayer and Astra Zeneca. S.D.P. is a member of the advisory board for Abbott, Applied Therapeutics, AstraZeneca, Bayer, Boehringer Ingelheim, Eli Lilly, Hengrui Pharmaceuticals, Menarini International, Novo Nordisk, Sanofi, and Vertex. He is a participant in a speaker's bureau for AstraZeneca, Boehringer Ingelheim, Eli Lilly, MSD, Novo Nordisk, Sanofi, and Takeda. His employer receives research funding from AstraZeneca and Boheringer Ingelheim. C.M. serves or has served on the advisory panel for Novo Nordisk, Sanofi, MSD, Eli Lilly, Novartis, AstraZeneca, Boehringer Ingelheim, Roche, Medtronic, ActoBio Therapeutics, Pfizer, Insulet, and Zealand Pharma. Financial compensation for these activities has been received by KU Leuven. KU Leuven has received research support for C.M. from Medtronic, Novo Nordisk, Sanofi, and ActoBio Therapeutics. C.M. serves or has served on the speaker's bureau for Novo Nordisk, Sanofi, Eli Lilly, Boehringer Ingelheim, AstraZeneca, and Novartis. Financial compensation for these activities has been received by KU Leuven. G.M. is a consultant to Novo Nordisk, Fractyl, Recor, Keyron, and Metadeq and is on the scientific board of Fractyl. P.R.'s institution has received industry research funding from AstraZeneca and Novo Nordisk. Her institution has also received consultancy fees from AstraZeneca, Bayer, Boehringer Ingelheim, Novo Nordisk, Gilead, and MSD and lecture fees from Sanofi, Astellas, Novo Nordisk, Bayer, and AstraZeneca. T.T. is on the advisory board for Boehringer Ingelheim, AstraZeneca, Sanofi, Novo Nordisk, and Eli Lilly and in the speaker's bureau for Boehringer Ingelheim, AstraZeneca, Sanofi, Novo Nordisk, Eli Lilly, MSD, Servier, and Merck. A.T. has served on the advisory board for Novo Nordisk and Boehringer Ingelheim, and his university has received research funding. His university also receives funding for educational and research support from Eli Lilly. J.B.B. is a paid consultant to Anji Pharmaceuticals, Boehringer Ingelheim, Eli Lilly, Fortress Biotech, Janssen, Mellitus Health, Moderna, Pendulum Therapeutics, Praetego, ReachMD, Stability Health, and Zealand Pharma. He is a member of the advisory board for Boehringer Ingelheim, Eli Lilly, Mellitus Health, Moderna, Novo Nordisk, Pendulum Therapeutics, Praetego, Stability Health, vTv Therapeutics, and Zealand Pharma. His employer receives research funding from Dexcom, Eli Lilly, NovaTarg, Novo Nordisk, Sanofi, Tolerion, and vTv Therapeutics. He is an investor in Mellitus Health, Pendulum Therapeutics, and PhaseBio. As a library, NLM provides access to scientific literature. Inclusion in an NLM database does not imply endorsement of, or agreement with, the contents by NLM or the National Institutes of Health. Learn more: PMC Disclaimer | PMC Copyright Notice Guidelines for the management of patients with diabetes have become an important part of clinical practice that improve the quality of care and help establish evidence-based medicine in this field. With rapidly accumulating evidence on various aspects of diabetes care, including landmark clinical trials of treatment agents and newer technologies, timely updates of the guidelines capture the most current state of the field and present a consensus. As a leading academic society, the Korean Diabetes Association publishes practice guidelines biennially and the American Diabetes Association does so annually. In this review, we summarize the key changes suggested in the most recent guidelines. Some of the important updates include treatment algorithms emphasizing comorbid conditions such as atherosclerotic cardiovascular disease, heart failure, and chronic kidney disease in the selection of anti-diabetic agents; wider application of continuous glucose monitoring (CGM), insulin pump technologies and indices derived from CGM such as time in range; more active screening of subjects at high-risk of diabetes; and more detailed individualization in diabetes care. Although there are both similarities and differences among guidelines and some uncertainty remains, these updates provide a good approach for many clinical practitioners who are battling with diabetes. Keywords: Diabetes mellitus, type 2; Consensus; Evidence-based medicine; Blood glucose The field of diabetes care is changing rapidly. Based on accumulating evidence on diverse aspects of diabetes management, clinical practice guidelines are updated in a timely manner. In particular, some landmark clinical trials on newer anti-diabetic medications are changing the landscape of treatment strategies. Technological advances are also being applied for glucose monitoring and insulin treatment. Therefore, in this review, we summarize the major guidelines that have been updated recently and compare the differences between these guidelines. The Committee of Clinical Practice Guidelines of the Korean Diabetes Association (KDA) updated the previous clinical practice guidelines for Korean adults with diabetes and published the seventh edition in May 2021 [1]. The updated statements endorsed a glycosylated hemoglobin (A1C) target of 6.5% for type 2 diabetes mellitus (DM) if it can be achieved safely [1]. In adults with recently diagnosed type 2 DM and no clinically significant cardiovascular disease (CVD), glycemic control aimed at the near-normal range should be considered, with the aim of preventing the development of microvascular and macrovascular complications over the lifetime, if this goal can be achieved without substantial hypoglycemia or other unacceptable adverse consequences [1]. Table 1 summarizes the goal of glucose, blood pressure, and lipid control for patients with type 2 DM according to the KDA guidelines compared with other guidelines. Comparison of Glucose, Blood Pressure, and Lipid Control Targets in Type 2 Diabetes According to Current Global Guidelines Korean Diabetes Association (KDA) [1] Japan Diabetes Society (JDS) [65] American Diabetes Association (ADA) [35] American Association of Clinical Endocrinology (AACE) [17] A1C, %