



AHN 2024 Diabetes Guideline Update

THE JOURNAL OF CLINICAL AND APPLIED RESEARCH AND EDUCATION

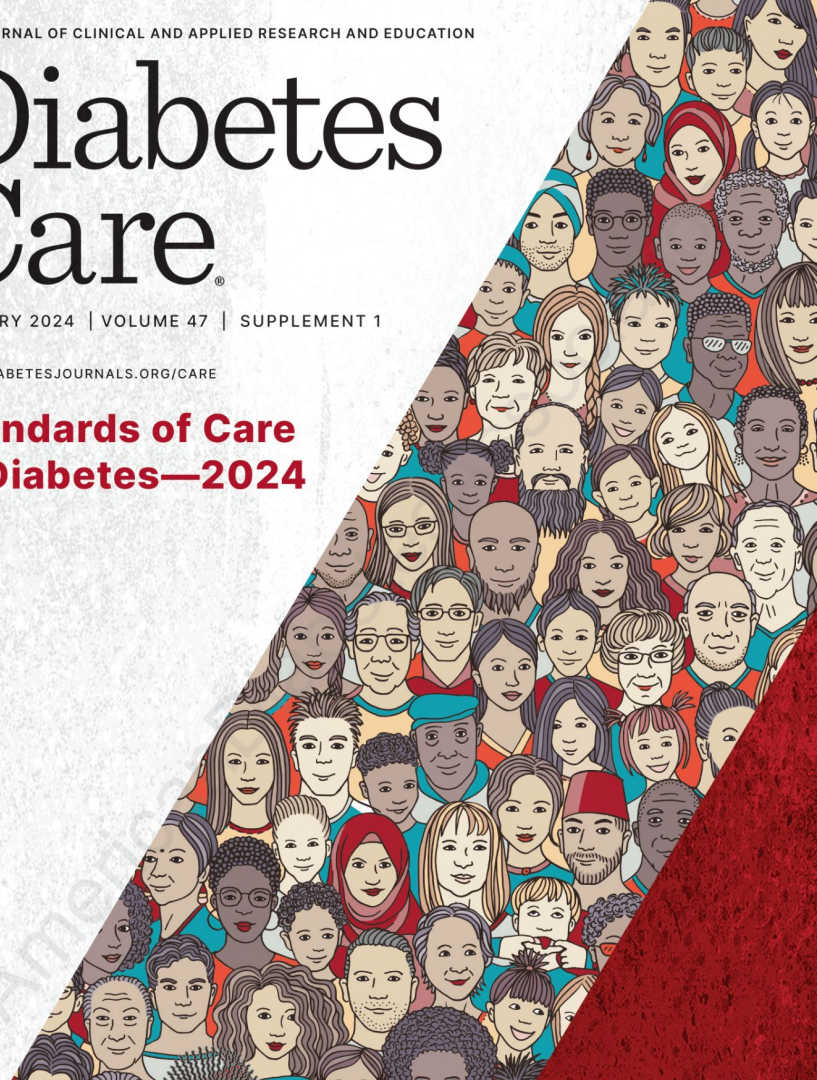
Diabetes Care

JANUARY 2024 | VOLUME 47 | SUPPLEMENT 1

WWW.DIABETESJOURNALS.ORG/CARE

**Standards of Care
in Diabetes—2024**

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Quality Measures

01

Diabetes Care: A1C > 9%:

- MSSP measure is inverse so lower number is better
- MA Plans \leq 9% so higher is better
- At least one lab value during measurement period

02

Medical Attention for Nephropathy

- MA Plans
- eGFR and a urine albumin-creatinine ratio (uACR) - during the measurement year - can be on the same or different dates of service

03

Statin Therapy in Persons with Diabetes

- MA Plans
- % of DM patients 40-75 w/2 diabetic medication fills, on unique dates during the measurement year (MY) and were dispensed a statin fill during the MY

04

Eye Exam for Patients with DM

- MA Plans
- % of patients 18-75 with DM who had a retinal eye exam in the MY
- Retinal or dilated eye exam by optometrist or ophthalmologist during MY

2024 Overview of Updates

General Concept Updates

- Person centeredness
- Culturally informed care
- Inclusive approach to care
- Utilization of telehealth, AI, and digital intervention

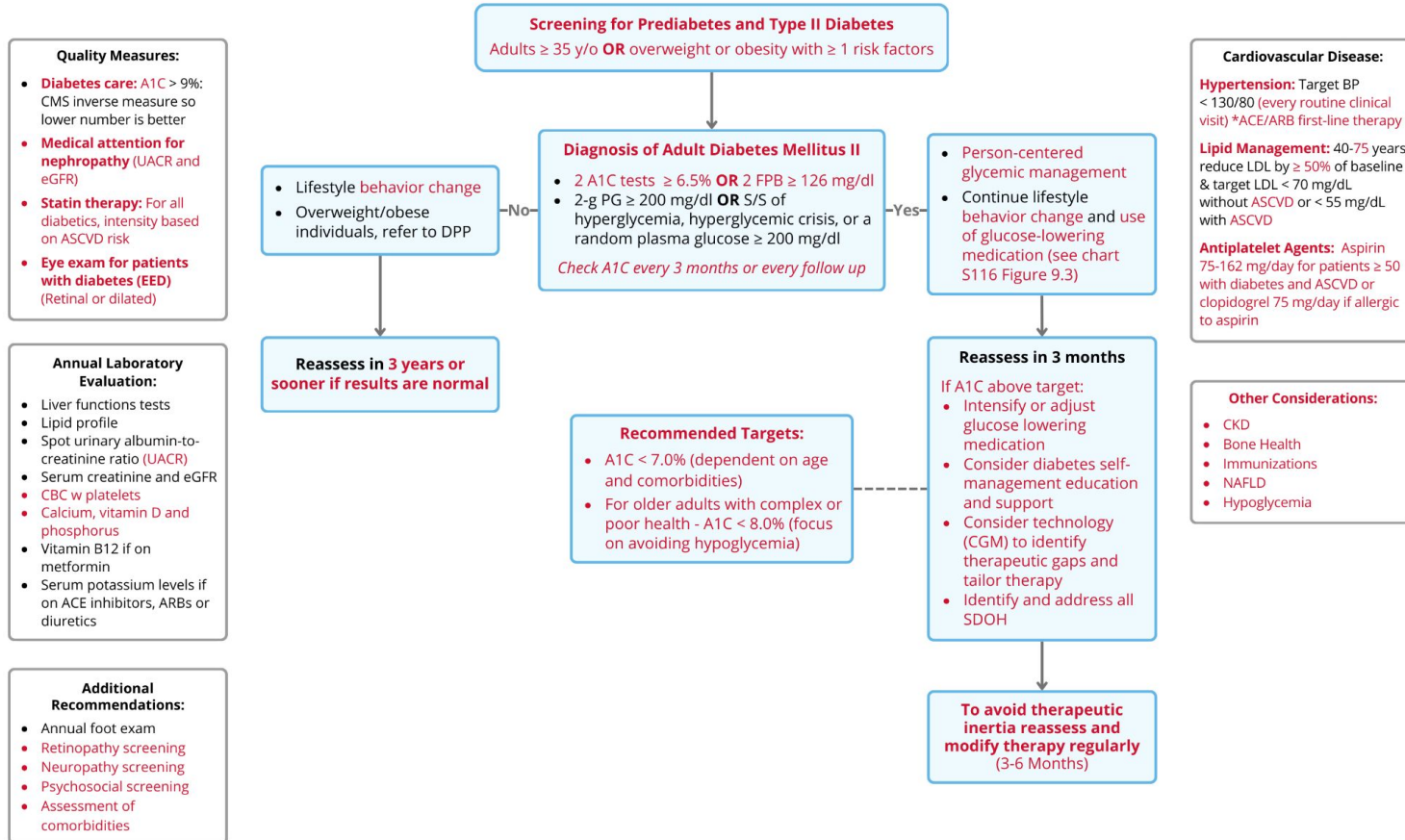
Integrating Social Context

- Assess social determinants of health (SDOH)
- Enhance self-management
- Community health worker involvement

Key Themes

- Cardiovascular disease reductions
- Obesity
- Type I diabetes
- Bone health
- Behavioral and lifestyle considerations
- Technology

Diabetes Mellitus Guideline (2024) - Front



Diabetes Mellitus Guideline (2024) - Back

Daily Alcohol Limits:

- Men - 2 ≤ drinks
- Women - 1 ≤ drink
- *(One drink = 12oz. Beer, 5 oz. wine, 1.5 oz. of distilled spirits)

Annual Foot Exam:

- Visual inspection
- Screen for PAD
- Assessment of foot deformities
- Vascular assessment (pedal pulses)
- Neurological assessment (vibration, pinprick sensation, or temperature) and 10-g monofilament exam
- Referral to podiatrist as needed

Retinopathy Screening:

- At diagnosis dilated and comprehensive eye exam and then annually
- Refer to Ophthalmologist if positive

Neuropathy:

- Screen for diabetic peripheral neuropathy at diagnosis of DM Type II and 5 years after the diagnosis of type 1 diabetes and at least annually thereafter

Chronic Kidney Disease:

- At least annually urinary albumin (e.g. spot urinary albumin-to-creatinine ratio (UACR) and estimated GFR with duration of ≥ 5 years and everyone with Type II DM regardless of treatment
- In people with CKD spot UACR and eGFR should be monitored 1-4 times/year depending on the stage of the kidney disease

Positive Health Behaviors and Well-being:

- Healthy Diet - i.e DASH, plant based and low-carbohydrate eating
- Limit alcohol consumption
- Reduce sodium intake - optimal goal of <2300 mg/day
- Moderate-to-vigorous activity of 150 min/wk spread over at least 3 days/week with 2-3 sessions of resistance training
- Weight management
- Tobacco cessation

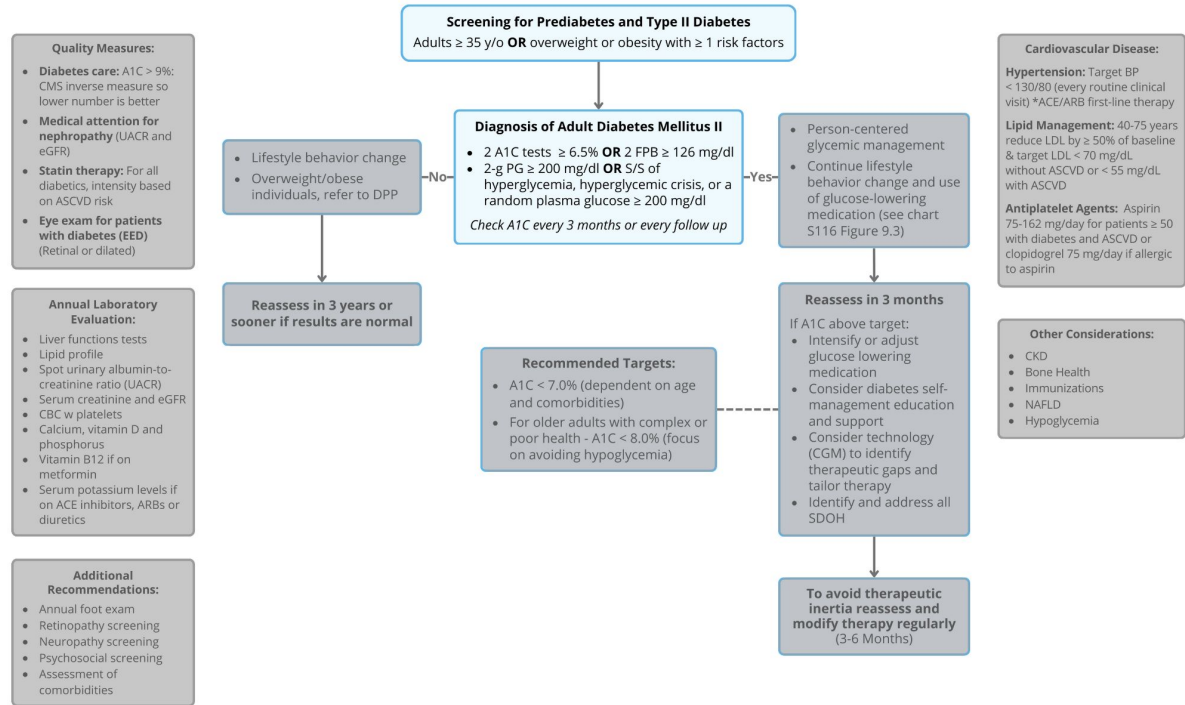
Additional Resources:

- [ADA Resources for Healthcare Professionals](#)
- [Comprehensive Diabetic Medical Exam \(p. S55-S56\)](#)
- [Older Adults Standard of Care \(p. S244-S254\)](#)

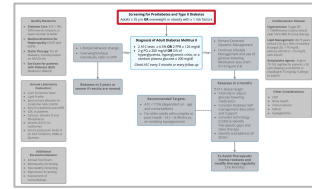
Abbreviations	
ACC	American College of Cardiology
ASCVD	Atherosclerotic Cardiovascular Disease
CDC	Comprehensive Diabetes Care
CGM	Continuous Glucose Monitoring
DASH	Dietary Approaches to Stop Hypertension
Diabetes Plate Method	Use small plate and limit carbs to 1/4 of plate, 1/4 protein and 1/2 vegetables
DPP	Diabetes Prevention Program
DSMES	Diabetes Self-Management Education and Support
FPG	Fasting plasma glucose
A1C	Glycated hemoglobin
PG	Plasma glucose
LDL	Low Density Lipoproteins
OGTT	Oral glucose tolerance test
TIR	Time in Range
TBR	Time Below Range

Supporting Documentation

Screening and Diagnosis



Screening for Prediabetes & Diabetes

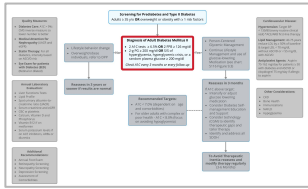


Screening for Prediabetes and Type II Diabetes

Adults ≥ 35 y/o **OR** overweight or obesity with ≥ 1 risk factors

Table 2.4—Criteria for screening for diabetes or prediabetes in asymptomatic adults

1. Testing should be considered in adults with overweight or obesity (BMI ≥ 25 kg/m² or ≥ 23 kg/m² in Asian American individuals) who have one or more of the following risk factors:
 - First-degree relative with diabetes
 - High-risk race and ethnicity (e.g., African American, Latino, Native American, Asian American, Pacific Islander)
 - History of cardiovascular disease
 - Hypertension ($\geq 130/80$ mmHg or on therapy for hypertension)
 - HDL cholesterol level <35 mg/dL (<0.9 mmol/L) and/or a triglyceride level >250 mg/dL (>2.8 mmol/L)
 - Individuals with polycystic ovary syndrome
 - Physical inactivity
 - Other clinical conditions associated with insulin resistance (e.g., severe obesity, acanthosis nigricans)
 2. People with prediabetes (A1C $\geq 5.7\%$ [≥ 39 mmol/mol], IGT, or IFG) should be tested yearly.
 3. People who were diagnosed with GDM should have lifelong testing at least every 3 years.
 4. For all other people, testing should begin at age 35 years.
 5. If results are normal, testing should be repeated at a minimum of 3-year intervals, with consideration of more frequent testing depending on initial results and risk status.
 6. People with HIV, exposure to high-risk medicines, history of pancreatitis
- GDM, gestational diabetes mellitus; IFG, impaired fasting glucose; IGT, impaired glucose tolerance.



Diagnosis of Diabetes

Diagnosis of Adult Diabetes Mellitus II

- 2 A1C tests $\geq 6.5\%$ OR 2 FPB ≥ 126 mg/dl
- 2-g PG ≥ 200 mg/dl OR S/S of hyperglycemia, hyperglycemic crisis, or a random plasma glucose ≥ 200 mg/dl

Check A1C every 3 months or every follow up

Table 2.1—Criteria for the diagnosis of diabetes in nonpregnant individuals

A1C $\geq 6.5\%$ (≥ 48 mmol/mol). The test should be performed in a laboratory using a method that is NGSP certified and standardized to the DCCT assay.*

OR

FPG ≥ 126 mg/dL (≥ 7.0 mmol/L). Fasting is defined as no caloric intake for at least 8 h.*

OR

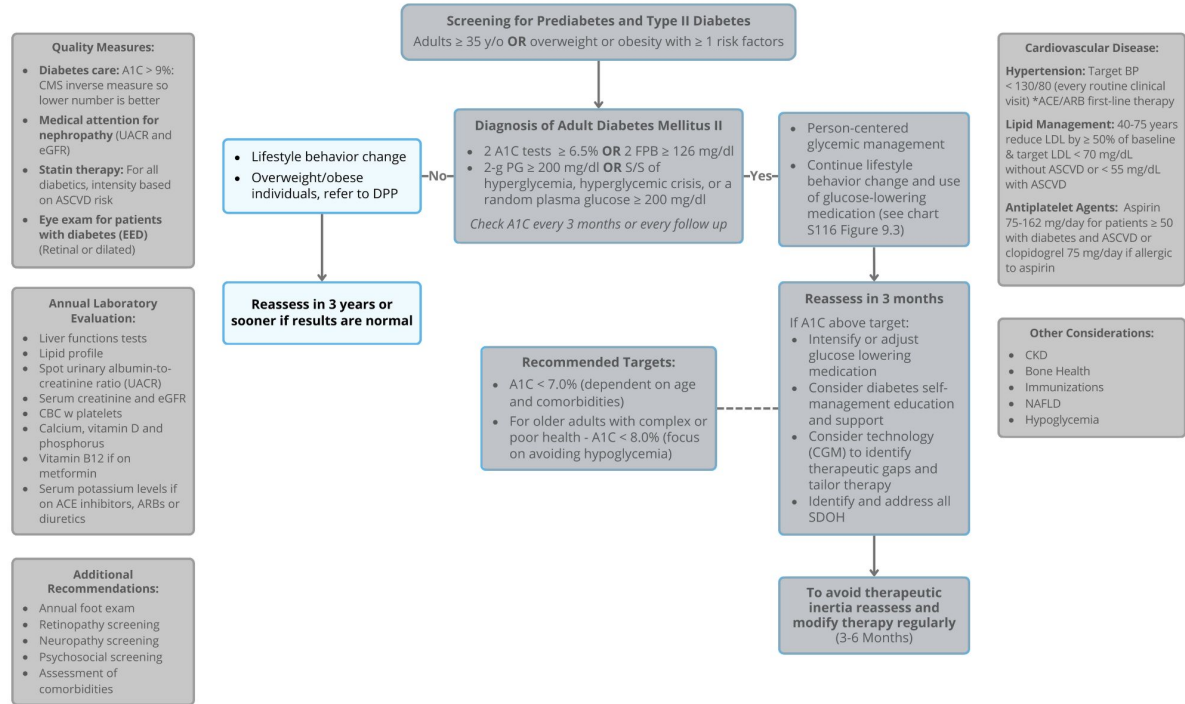
2-h PG ≥ 200 mg/dL (≥ 11.1 mmol/L) during OGTT. The test should be performed as described by the WHO, using a glucose load containing the equivalent of 75 g anhydrous glucose dissolved in water.*

OR

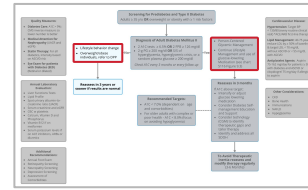
In an individual with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma glucose ≥ 200 mg/dL (≥ 11.1 mmol/L). Random is any time of the day without regard to time since previous meal.

DCCT, Diabetes Control and Complications Trial; FPG, fasting plasma glucose; OGTT, oral glucose tolerance test; NGSP, National Glycohemoglobin Standardization Program; WHO, World Health Organization; 2-h PG, 2-h plasma glucose. *In the absence of unequivocal hyperglycemia, diagnosis requires two abnormal test results obtained at the same time (e.g., A1C and FPG) or at two different time points.

Negative Screening



Lifestyle Behavior Changes



- **Lifestyle behavior change**

- Overweight/obese individuals, refer to DPP

Smoking

- No cigarettes and other tobacco products or e-cigarettes
- Recommend and refer for tobacco/smoking cessation counseling and pharmacological therapy if necessary

Positive health behaviors and well-being

- Healthy Diet - i.e DASH, plant based and low-carbohydrate eating
- Limit alcohol consumption
- Reduce sodium intake - optimal goal of <2300 mg/day

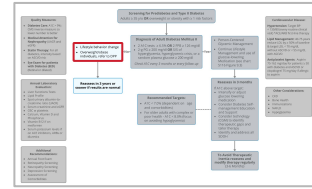
Nutrition

- Religious fasting - how to manage diabetes during this time
- Chrononutrition (impact of eating on circadian rhythms)
- Non-nutritive sweeteners - use judiciously when they are in replacement for sugar - better than including sugar in one's diet

Sleep

- Consider screening for sleep health
- Refer to sleep specialists and/or behavioral health as indicated

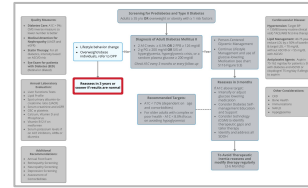
Obesity and Weight Management for Prevention and Treatment in Diabetes



- Lifestyle behavior change
- **Overweight/obese individuals, refer to DPP**

- **Calculate BMI**
- Perform additional body fat distribution measurements like **waist** circumference, **waist-to-hip ratio**, and waist-to-height ratio
- Monitor annually
- Ensure Privacy
- **Individualize** initial treatment (lifestyle, pharmacological treatment, or combination)
- Monthly Contact and support, recommend ongoing monitoring of body weight and self-esteem strategies and encourage regular **physical activity (200-300 min/week)**
- For those who achieve weight loss goals, continue to monitor progress periodically, provide ongoing support and recommend continuing adopted interventions to maintain goals long-term.

Reassessment Time Frame

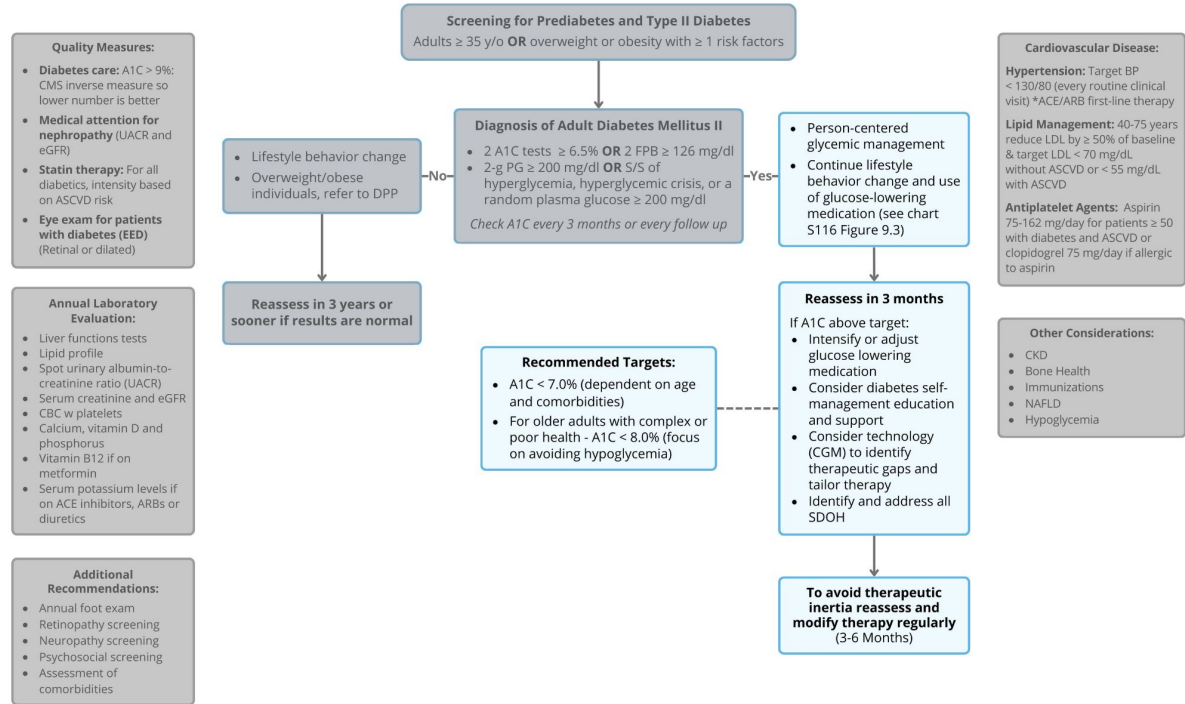


Reassess in 3 years or sooner if results are normal

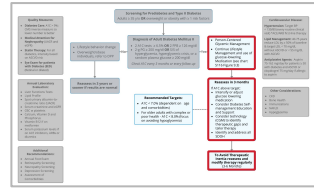
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 - First-degree relative with diabetes
 - High-risk race and ethnicity (e.g., African American, Latino, Native American, Asian American, Pacific Islander)
 - History of cardiovascular disease
 - Hypertension ($\geq 130/80$ mmHg or on therapy for hypertension)
 - HDL cholesterol level <35 mg/dL (<0.9 mmol/L) and/or a triglyceride level >250 mg/dL (>2.8 mmol/L)
 - Individuals with polycystic ovary syndrome
 - Physical inactivity
 - Other clinical conditions associated with insulin resistance (e.g., severe obesity, acanthosis nigricans)
 - People with prediabetes (A1C $\geq 5.7\%$ [≥ 39 mmol/mol], IGT, or IFG) should be tested yearly.
 - People who were diagnosed with GDM should have lifelong testing at least every 3 years.
 - For all other people, testing should begin at age 35 years.
 - If results are normal, testing should be repeated at a minimum of 3-year intervals, with consideration of more frequent testing depending on initial results and risk status.**
 - People with HIV, exposure to high-risk medicines, history of pancreatitis
- GDM, gestational diabetes mellitus; IFG, impaired fasting glucose; IGT, impaired glucose tolerance.

Positive Screening



Glycemic Management



- **Person-centered glycemic management**
- Continue lifestyle behavior changes and use of glucose-lowering medication (see chart S116 Figure 9.3)

Reassess in 3 months

If A1C above target:

- Intensify or adjust glucose lowering medication
- **Consider diabetes self-management education and support**
- Consider technology (CGM) to identify therapeutic gaps and tailor therapy
- **Identify and address all SDOH**

To avoid therapeutic inertia reassess and modify therapy regularly (3-6 Months)

REVIEW AND AGREE ON MANAGEMENT PLAN

- Review management plan
- Mutual agreement on changes
- Ensure agreed modification of therapy is implemented in a timely fashion to avoid clinical inertia
- Decision cycle undertaken regularly (at least once/ twice a year)

ASSESS KEY PATIENT CHARACTERISTICS

- Current lifestyle
- Comorbidities i.e. ASCVD, CKD, HF
- Clinical characteristics i.e. age, HbA_{1c}, weight
- Issues such as motivation and depression
- Cultural and socio-economic context

ONGOING MONITORING AND SUPPORT INCLUDING:

- Emotional well-being
- Check tolerability of medication
- Monitor glycaemic status
- Biofeedback including SMBG, weight, step count, HbA_{1c}, BP, lipids



CONSIDER SPECIFIC FACTORS WHICH IMPACT CHOICE OF TREATMENT

- Individualised HbA_{1c} target
- Impact on weight and hypoglycaemia
- Side effect profile of medication
- Complexity of regimen i.e. frequency, mode of administration
- Choose regimen to optimise adherence and persistence
- Access, cost and availability of medication

IMPLEMENT MANAGEMENT PLAN

- Patients not meeting goals generally should be seen at least every 3 months as long as progress is being made; more frequent contact initially is often desirable for DSMEs

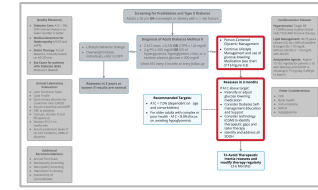
AGREE ON MANAGEMENT PLAN

- Specify SMART goals:
 - Specific
 - Measurable
 - Achievable
 - Realistic
 - Time limited

SHARED DECISION-MAKING TO CREATE A MANAGEMENT PLAN

- Involves an educated and informed patient (and their family/caregiver)
- Seeks patient preferences
- Effective consultation includes motivational interviewing, goal setting and shared decision-making
- Empowers the patient
- Ensures access to DSMEs

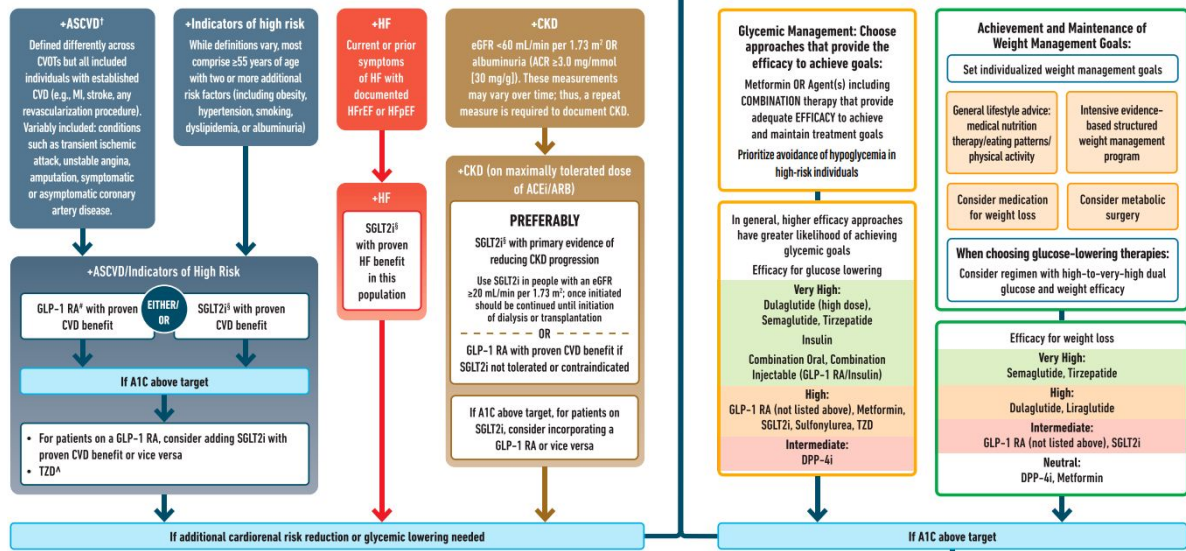
Glucose-Lowering Medications



- Person-centered glycemic management
- **Continue lifestyle behavior changes and use of glucose-lowering medication (see chart S116 Figure 9.3)**

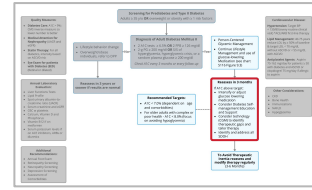
- Reassess in 3 months
- If A1C above target:**
- **Intensify or adjust glucose lowering medication**
 - **Consider diabetes self-management education and support**
 - **Consider technology (CGM) to identify therapeutic gaps and tailor therapy**
 - **Identify and address all SDOH**

Goal: Cardiorenal Risk Reduction in High-Risk Individuals with Type 2 Diabetes (in addition to comprehensive CV risk management)* ← **Goal: Achievement and Maintenance of Glycemic and Weight Management Goals**



* In people with HF, CKD, established CVD or multiple risk factors for CVD, the decision to use a GLP-1 RA or SGLT2i with proven benefit should be independent of background use of metformin.† A strong recommendation is warranted for people with CVD and a weaker recommendation for those with indicators of high CV risk. Moreover, a higher absolute risk reduction and thus lower numbers needed to treat are seen at higher levels of baseline risk and should be factored into the shared decision-making process. See text for details. † Low-dose TZD may be better tolerated and similarly effective. ‡ For SGLT2i, CV renal outcomes trials demonstrate their efficacy in reducing the risk of composite MACE, CV death, all-cause mortality, MI, HF, and renal outcomes in individuals with T2D with established/high risk of CVD. ‡ For GLP-1 RA, CVOTs demonstrate their efficacy in reducing composite MACE, CV death, all-cause mortality, MI, stroke, and renal endpoints in individuals with T2D with established/high risk of CVD.

Self-Management & CGMs



Reassess in 3 months

If A1C above target:

- Intensify or adjust glucose lowering medication
- **Consider diabetes self-management education and support**
- **Consider technology (CGM) to identify therapeutic gaps and tailor therapy**
- Identify and address all SDOH

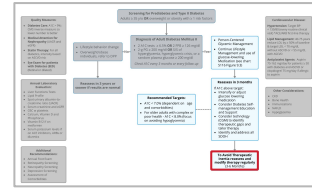
Diabetic Technology

- Offer a variety of diabetes devices including insulin pens, glucose meters, continuous glucose monitors (CGMs), and automated insulin delivery (AID) systems.
- Health care professionals should be knowledgeable and competent in the use of diabetes technology for effective diabetes care.

Diabetic Self-Management Education (DSME) Support Referral

- Five critical times to evaluate the need for DSME
 - At diagnosis
 - When not meeting treatment goals
 - Annually
 - When *complicating factors* develop (medical, physical, and psychosocial)
 - Transitions in life and care occur

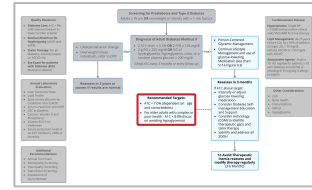
Preferred Pharmacotherapy for People with Diabetes + Overweight/Obesity



**To avoid therapeutic inertia
reassess and modify therapy
regularly (3-6 Months)**

- People with diabetes and overweight/obesity, the preferred medication should be GLP-1-RA or dual glucose dependent insulinotropic polypeptide and GLP-1-RA with greater weight loss efficacy (i.e **semaglutide or tirzepatide**).
- **Re-evaluate!!** To **prevent therapeutic inertia**, for those not reaching goals, reevaluate weight management therapies and intensify treatment with additional approaches (e.g. metabolic surgery, additional pharmacologic agents, and structures lifestyle management programs)

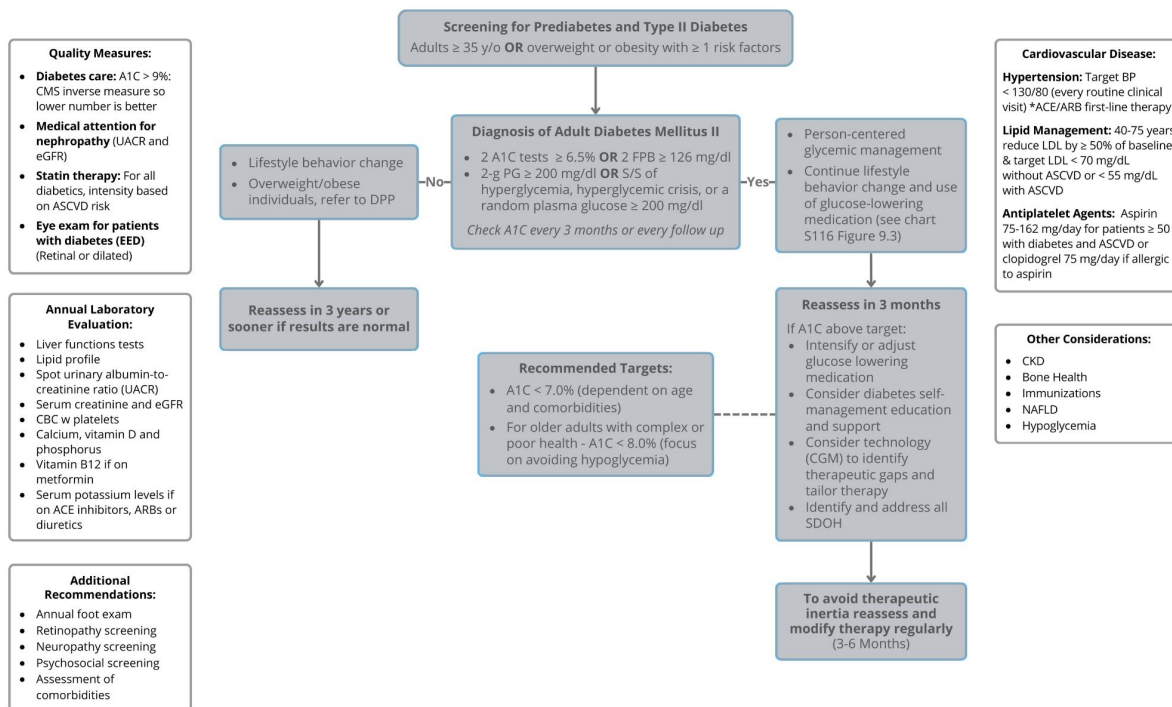
A1C Target Recommendations for Older Adults



Recommended Targets:

- A1C < 7.0% (dependent on age and comorbidities)
 - **For older adults with complex or poor health - A1C < 8.0% (focus on avoiding hypoglycemia)**
- Older adults with diabetes who are **otherwise healthy** with few and stable coexisting chronic and intact cognitive function and functional status should have lower glycemic goals (such as **A1C <7.0-7.5%**)
 - Older adults with diabetes and **intermediate or complex health** are clinically heterogeneous with variable life expectancy. Selection of glycemic goals should be individualized, with less stringent goals (such as **A1C <8.0%**)
 - Older adults with very complex or **poor health** receive minimal benefit from stringent glycemic control, and clinicians should avoid reliance on glycemic goals and instead **focus on avoiding hypoglycemia and symptomatic hyperglycemia**

Additional Information



Hypertension Treatment

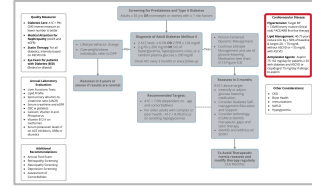
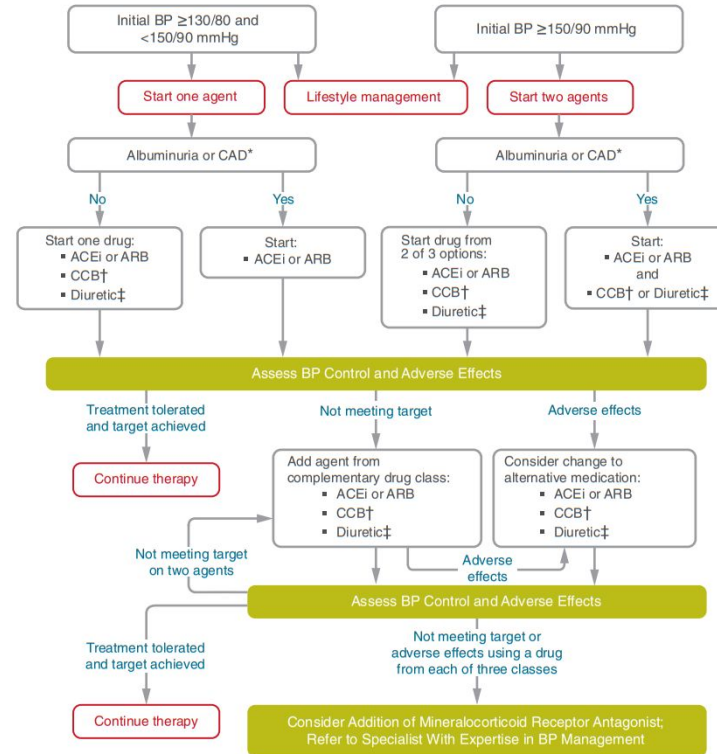
Cardiovascular Disease

Hypertension: Target BP < 130/80 (every routine clinical visit)

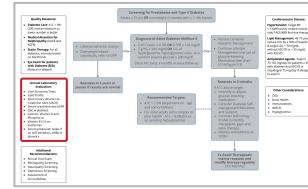
*ACE/ARB first-line therapy

Lipid Management: 40-75 years reduce LDL by $\geq 50\%$ of baseline & target LDL < 70 mg/dL without ASCVD or < 55 mg/dL with ASCVD

Antiplatelet Agents: Aspirin 75-162 mg/day for patients ≥ 50 with diabetes and ASCVD or clopidogrel 75 mg/day if allergic to aspirin



Lipid Management & Antiplatelet Agents



Cardiovascular Disease

Hypertension: Target BP < 130/80 (every routine clinical visit)
*ACE/ARB first-line therapy

Lipid Management: 40-75 years reduce LDL by $\geq 50\%$ of baseline & target LDL < 70 mg/dL without ASCVD or < 55 mg/dL with ASCVD

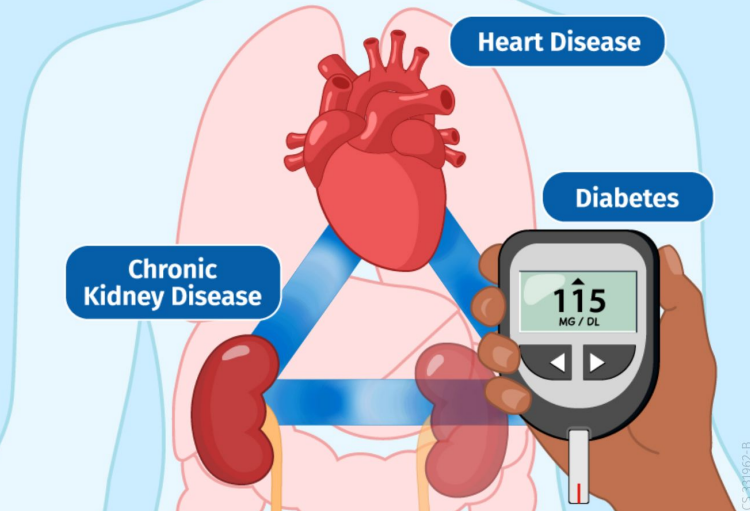
Antiplatelet Agents: Aspirin 75-162 mg/day for patients ≥ 50 with diabetes and ASCVD or clopidogrel 75 mg/day if allergic to aspirin

Did you know that these conditions are connected?

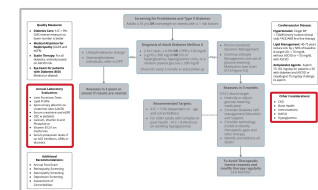
When you prevent or manage **one** condition, you can help prevent or manage **all three.**



Find out more:
cdc.gov/diabetes



Chronic Kidney Disease (CKD)



Annual Laboratory Evaluation:

- Liver functions tests
- Lipid profile
- **Spot urinary albumin- to-creatinine ratio (UACR)**
- **Serum creatinine and eGFR**
- CBC w platelets
- Calcium, vitamin D and phosphorus
- Vitamin B12 if on metformin
- Serum potassium levels if on ACE inhibitors, ARBs or diuretics

Other Considerations:

- **CKD**
- Bone health
- Immunizations
- NAFLD
- Hypoglycemia

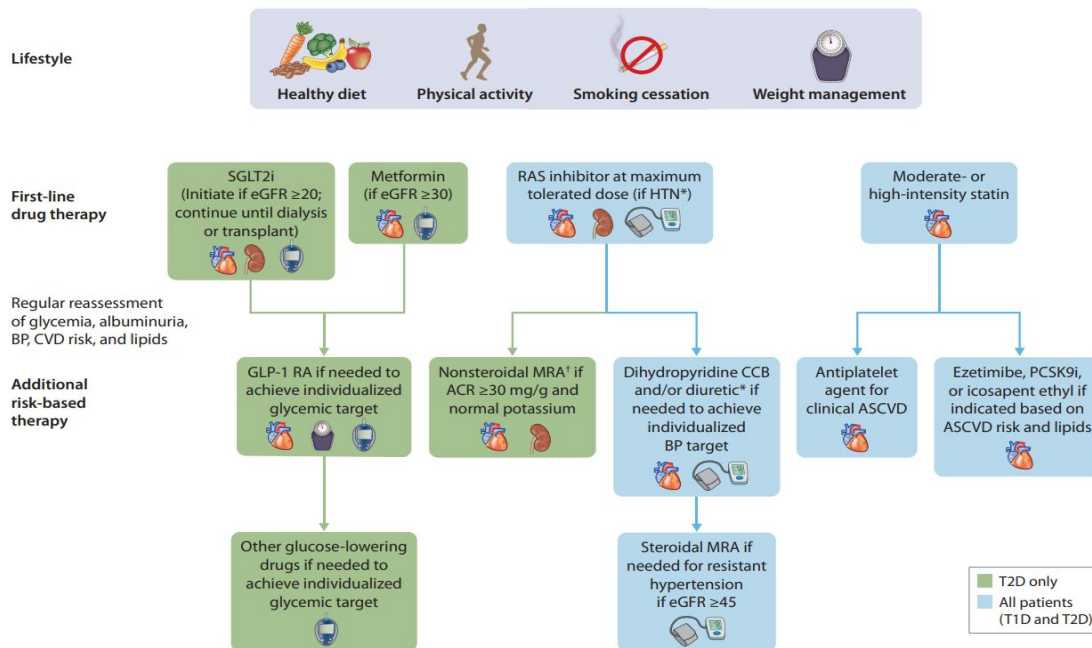
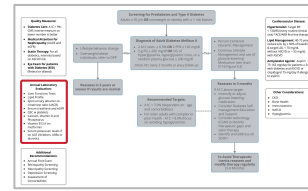


Figure 11.2—Holistic approach for improving outcomes in people with diabetes and CKD

Bone Health: Calcium, Vitamin D, and Phosphorus



Annual Laboratory Evaluation:

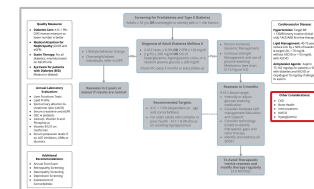
- Liver functions tests
- Lipid profile
- Spot urinary albumin- to-creatinine ratio (UACR)
- Serum creatinine and eGFR
- CBC w platelets
- **Calcium, vitamin D and phosphorus**
- Vitamin B12 if on metformin
- Serum potassium levels if on ACE inhibitors, ARBs or diuretics

Other Considerations:

- CKD
- **Bone health**
- Immunizations
- NAFLD
- Hypoglycemia

- Counsel patients on intake of **calcium and vitamin D** to ensure it meets the recommended daily allowance
- Monitor **bone mineral density using dual-energy Xray absorptiometry of high-risk older adults with diabetes** (aged > 65) and younger individuals with diabetes and multiple risk factors **every 2-3 years**
- Osteoporosis medications should be considered for people with diabetes who have low bone mineral density with a **T-score - 2.0 or have experienced fragility fractures**
- Prioritize use of glucose-lowering medications that are associated with **low-risk for hypoglycemia** to decrease fall risk

Bone Health: Fracture Risk, Fall Risk, and Bone Density

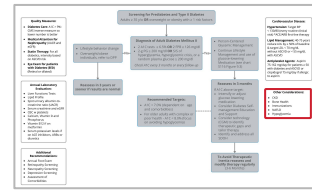


Other Considerations:

- CKD
- **Bone health**
- Immunizations
- NAFLD
- Hypoglycemia

- Fracture risk should be assessed in older adults with diabetes
- Monitor **bone mineral density using dual-energy Xray absorptiometry of high-risk older adults with diabetes** (aged > 65) and younger individuals with diabetes and multiple risk factors **every 2-3 years**
- Clinicians should consider the potential adverse impact on bone health when **selecting pharmacological options** to lower glucose levels in people with diabetes.
- Prioritize use of glucose-lowering medications that are associated with **low-risk for hypoglycemia** to decrease fall risk

Immunization Updates

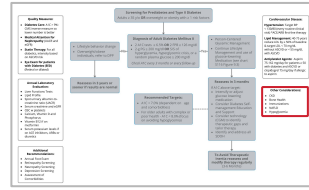


Other Considerations:

- CKD
- Bone health
- **Immunizations**
- NAFLD
- Hypoglycemia

- COVID-19 - 6 months and older
- Hepatitis B - < 60 if ≥ at clinician discretion based on likelihood of acquiring hepatitis B infection
- Influenza All people with diabetes - Annual not live attenuated influenza vaccine
- Pneumonia (PPSV23[Pneumovax]) 19-64 - see CDC Guidelines ≥ 65 see [CDC Guidelines](#)
- **RSV Older adults ≥ 60 years of age with diabetes**
- Tetanus, diphtheria, pertussis (TDAP) - All adults; pregnant individuals should have an extra dose - booster every 10 years 2 for effectiveness, 3 for safety
- Zoster ≥ 50 years - 2 - dose Shingrix, even if previously vaccinated

Non Alcoholic Fatty Liver Disease (NAFLD)



Other Considerations:

- CKD
- Bone health
- Immunizations
- **NAFLD**
- Hypoglycemia

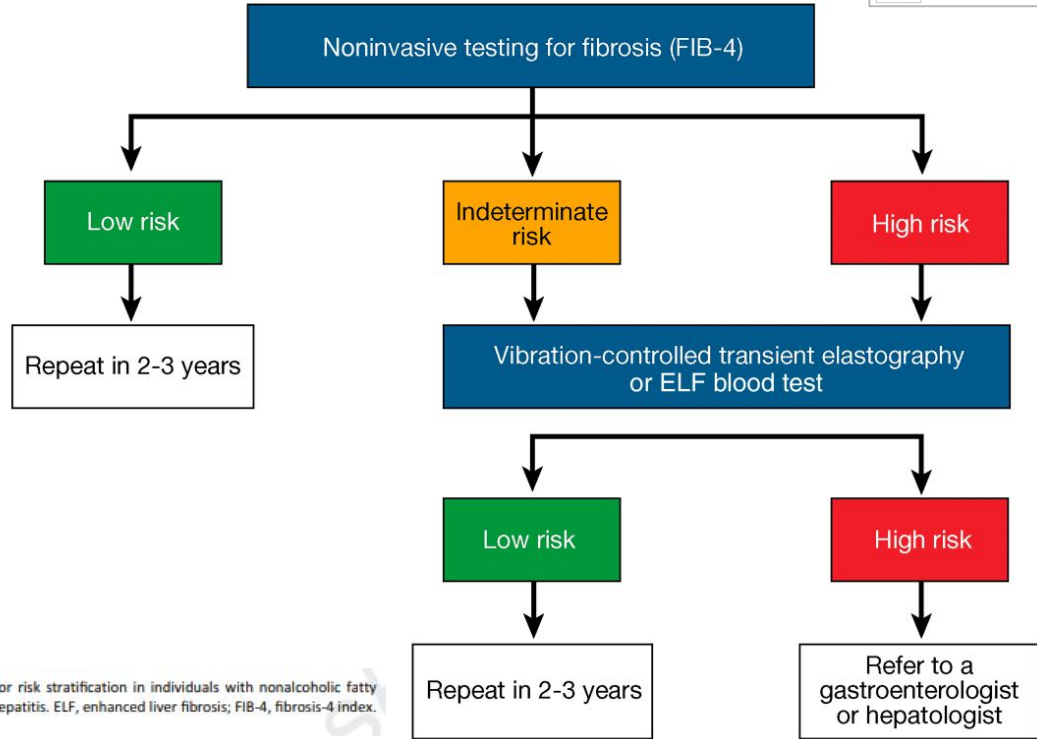
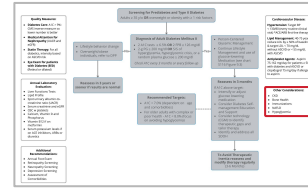


Figure 4.2—A proposed algorithm for risk stratification in individuals with nonalcoholic fatty liver disease or nonalcoholic steatohepatitis. ELF, enhanced liver fibrosis; FIB-4, fibrosis-4 index. Adapted from Kanwal et al. (174).

Glycemic Goals and Hypoglycemia



Other Considerations:

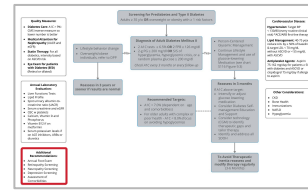
- CKD
- Bone health
- Immunizations
- NAFLD
- **Hypoglycemia**

- A1C- Utility and limitations; taking into consideration time and range

Table 6.5—Assessment of hypoglycemia risk among individuals treated with insulin, sulfonylureas, or meglitinides

Clinical/biological risk factors	Social, cultural, and economic risk factors
Major risk factors <ul style="list-style-type: none"> • Recent (within the past 3–6 months) level 2 or 3 hypoglycemia • Intensive insulin therapy* • Impaired hypoglycemia awareness • End-stage kidney disease • Cognitive impairment or dementia 	Major risk factors <ul style="list-style-type: none"> • Food insecurity • Low-income status[§] • Homelessness • Fasting for religious or cultural reasons
Other risk factors <ul style="list-style-type: none"> • Multiple recent episodes of level 1 hypoglycemia • Basal insulin therapy* • Age ≥75 years[†] • Female sex • High glycemic variability[‡] • Polypharmacy • Cardiovascular disease • Chronic kidney disease (eGFR <60 mL/min/1.73 m² or albuminuria) • Neuropathy • Retinopathy • Major depressive disorder 	Other risk factors <ul style="list-style-type: none"> • Low health literacy • Alcohol or substance use disorder

Additional Recommendations



Additional Recommendations:

- Annual foot exam
- Retinopathy screening
- Neuropathy screening
- Psychosocial screening
- Assessment of comorbidities

Annual Foot Exam

- Visual inspection (including assessment of foot deformities)
- Screen for PAD
- Vascular assessment (pedal pulses)
- Neurological assessment and 10-g monofilament exam
- Referral to podiatrist as needed

Retinopathy Screening

- At diagnosis dilated and comprehensive eye exam and then annually
- Refer to Ophthalmologist if positive

Neuropathy Screening

- Screen for diabetic peripheral neuropathy at diagnosis of DM Type II and 5 years after the diagnosis of type 1 diabetes and at least annually thereafter

Psychosocial Screening

- Updates guidance for detailed psychosocial screening protocols, including diabetes-related mood concerns, stress, and quality of life
- Included screening for fear of hypoglycemia
- Increased frequency for depression screening and monitoring in people with a history of depression

Diabetes Medication Cost Comparison

Diabetic Medication Cost Comparison Listed as Average Cost* per Prescription

Metformin	
METFORMIN HCL	\$2
METFORMIN HCL ER	\$2

Sulfonylureas	
GLIPIZIDE XL	\$2
GLIPIZIDE	\$3
GLIMEPIRIDE	\$3
GLIPIZIDE ER	\$7
GLYBURIDE	\$11

Thiazolidinediones (TZD)	
PIOGLITAZONE HCL	\$5

SGLT2 Inhibitors	
STEGLATRO (Ertugliflozin)	\$264
FARXIGA (Dapagliflozin)	\$517
JARDIANCE (Empagliflozin)	\$541
INVOKANA (Canagliflozin)	\$596

GLP-1 RA	
RYBELSUS (Semaglutide)	\$873
OZEMPIC (Semaglutide)	\$901
TRULICITY (Dulaglutide)	\$903
VICTOZA (Liraglutide)	\$940
MOUNJARO (Terzaperatide)	\$1,036

Combinations w/ Metformin	
GLYBURIDE-METFORMIN HCL	\$7
GLIPIZIDE-METFORMIN	\$35
PIOGLITAZONE-METFORMIN	\$57
KOMBIGLYZE XR (metFORMIN/SAXagliptin)	\$397
XIGDUO XR (metFORMIN/Dapagliflozin)	\$424
JANUMET XR (metFORMIN/SITagliptin)	\$461
JENTADUETO XR (metFORMIN/linaGLIPtin)	\$466
INVOKAMET (metFORMIN/Canagliflozin)	\$475
TRIJARDY XR (metFORMIN/empagliflozin/Linagliptin)	\$486
SYNJARDY XR (metFORMIN/Empagliflozin)	\$510
SYNJARDY (metFORMIN/Empagliflozin)	\$532
JENTADUETO (metFORMIN/linaGLIPtin)	\$725
JANUMET (metFORMIN/SITagliptin)	\$729

DDP-4 Inhibitors/SGLT2 Inhibitors	
GLYXAMBI (Empagliflozin/Linagliptin)	\$564

Diabetic Medication Cost Comparison Listed as Average Cost* per Prescription

Rapid Acting Insulin (Short Acting)	
INSULIN LISPRO	\$61
INSULIN LISPRO PROT & LISPRO	\$187
HUMULIN R (Regular)	\$199
NOVOLIN R (Regular)	\$220
INSULIN ASPART FLEXPEN	\$250
INSULIN ASPART	\$256
LYUMJEV (Lispro)	\$290
NOVOLIN R FLEXPEN (Regular)	\$295
INSULIN ASP PROT & ASP FLEXPEN	\$473
HUMALOG (Insulin Lispro)	\$518
NOVOLOG PENFILL (Apart)	\$665
NOVOLOG FLEXPEN (Apart)	\$689
NOVOLOG (Aspart)	\$804
FIASP FLEXTOUCH (Aspart)	\$833
FIASP (Aspart)	\$867
FIASP PENFILL (Aspart)	\$930
HUMULIN R U-500 (Regular)	\$996
HUMULIN R U-500 KWIKPEN (Regular)	\$1,081
APIDRA (Glulisine)	\$1,224
LYUMJEV KWIKPEN (Lispro)	\$1,251
HUMALOG KWIKPEN (Lispro)	\$1,512
AFREZZA (Human)	\$2,069

Insulin NPH and Combinations	
HUMULIN N (NPH)	\$145
NOVOLIN N (NPH)	\$261
HUMULIN 70-30 (NPH/Regular)	\$331
NOVOLIN 70-30 (NPH/Regular)	\$340
NOVOLIN N FLEXPEN (NPH)	\$375
NOVOLIN 70-30 FLEXPEN (NPH/ Regular)	\$452
HUMULIN 70/30 KWIKPEN (NPH/Regular)	\$476
NOVOLOG MIX 70/30 (NPH/Regular)	\$511
HUMULIN N KWIKPEN(NPH)	\$537
HUMALOG MIX 75-25 (Lispro/Protamine)	\$978
NOVOLOG MIX 70-30 FLEXPEN (Aspart/Protamine)	\$1,009
HUMALOG MIX 75-25 KWIKPEN (Lispro/Protamine)	\$1,096

Basal Insulin (Long Acting)	
INSULIN GLARGINE-YFGN	\$88
INSULIN GLARGINE SOLOSTAR	\$137
INSULIN GLARGINE	\$141
INSULIN DEGLUDEC FLEXTOUCH	\$325
BASAGLAR TEMPO PEN (Glargine)	\$337
BASAGLAR KWIKPEN U-100 (Glargine)	\$337
INSULIN DEGLUDEC	\$344
LANTUS (Glargine)	\$415
LANTUS SOLOSTAR (Glargine)	\$450
TOUJEO SOLOSTAR (Glargine)	\$459
LEVEMIR FLEXTOUCH (Detemir)	\$544
LEVEMIR (Detemir)	\$572
TRESIBA FLEXTOUCH (Degludec)	\$619
TOUJEO MAX SOLOSTAR (Glargine 300)	\$625
TRESIBA (Degludec)	\$638