

Know Diabetes by Heart™ Pocket Guide:

Guide to Clinical Care with Patients with Diabetes and Established Cardiovascular Risk

The American Heart Association and American Diabetes Association have partnered to summarize key clinical recommendations for cardiometabolic health management for people with type 2 diabetes.



COMPREHENSIVE CARDIOMETABOLIC HEALTH MANAGEMENT MODEL FOR PERSONS WITH TYPE 2 DIABETES: LIFE’S SIMPLE 7	
The American Heart Association (AHA) has identified seven simple measures (“Life’s Simple 7”) to prevent cardiovascular disease. ¹	
Life’s Simple 7 Assessment	2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease
Measure height, weight, waist circumference	Calculating body mass index (BMI) is recommended annually or more frequently to identify adults with overweight and obesity for weight loss considerations. It is reasonable to measure waist circumference to identify those at higher cardiometabolic risk.
Measure blood pressure	Nonpharmacologic interventions are recommended for all adults with elevated blood pressure or hypertension and cardiovascular disease. For those requiring pharmacologic therapy, the target blood pressure should generally be less than 130/80 mmHg.
Measure A1C	For adults with type 2 diabetes mellitus, lifestyle changes, such as improving dietary habits and achieving exercise recommendations, are crucial. If medication is indicated, metformin is first-line therapy, followed by consideration of a sodium-glucose cotransporter 2 inhibitor or a glucagon-like peptide-1 receptor agonist.
Measure lipid levels	Statin therapy is first-line treatment for primary ASCVD prevention in <ul style="list-style-type: none">Those with diabetes who are 40–75 years of agePatients with elevated LDL-C levels (≥190 mg/dl)Those at sufficient ASCVD risk following a clinician-patient risk discussion
Assess tobacco use	All adults should be assessed at every visit for tobacco use, and those who use tobacco should be assisted and strongly advised to quit. Referral to specialists is helpful for both behavioral modification, nicotine replacement, and drug treatments.
Assess physical activity level	Adults should engage in at least 150 minutes per week of accumulated moderate intensity or 75 minutes per week of vigorous intensity physical activity.
Assess dietary pattern	All adults should consume a healthy diet that emphasizes the intake of vegetables, fruits, nuts, whole grains, lean vegetable or animal protein, and fish and minimizes the intake of trans fats, processed meats, refined carbohydrates, and sweetened beverages.

ASCVD RISK CALCULATOR	
The assessment of ASCVD risk remains the foundation of primary prevention. The purpose of the ASCVD Risk Calculator is to estimate a patient’s 10-year ASCVD risk at an initial visit to establish a reference point. ACC/AHA guidelines recommend the use of the PCE as an important starting point, not as the final arbiter, for decision-making in primary prevention of ASCVD. ¹	
Adults who are 40 to 75 years of age and are being evaluated for cardiovascular disease prevention should undergo a 10-year atherosclerotic cardiovascular disease (ASCVD) risk estimation and have a clinician–patient risk discussion before starting on pharmacological therapy, such as antihypertensive therapy, a statin, or aspirin.	
ACC/AHA 2018 Cholesterol Guidelines and 2017 Hypertension Guidelines recommend the use of quantitative 10-year risk assessment, based on measurement of traditional ASCVD risk factors and with use of a validated risk prediction tool, as the first step in considering treatment options for primary prevention.	
ASCVD Risk Calculator: KNOWDIABETESBYHEART.ORG/RISKCALC	
Measure height, weight, waist circumference	Age, sex, race
Measure blood pressure (systolic blood pressure)	Measure lipid levels
Medication use (antihypertensives, statin, aspirin)	Determine diabetes status
Assess tobacco use (smoking status)	

RECOMMENDATION FOR STATIN AND COMBINATION TREATMENT IN ADULTS WITH DIABETES		
ADA recommended lipid-lowering strategies. ²		
Age	ASCVD OR 10-year ASCVD risk >20%	Recommended statin ^a intensity and combination treatment [*]
<40 years	No	None†
	Yes	High—In patients with ASCVD, if LDL cholesterol ≥70 mg/dL despite maximally tolerated statin dose, consider adding additional LDL-lowering therapy (such as ezetimibe or PCSK9 inhibitor)#
≥40 years	No	Moderate‡
	Yes	High—In patients with ASCVD, if LDL cholesterol ≥70 mg/dL despite maximally tolerated statin dose, consider adding additional LDL-lowering therapy (such as ezetimibe or PCSK9 inhibitor)

^aFor patients who do not tolerate the intended intensity of statin, the maximally tolerated statin dose should be used. †Moderate-intensity statin may be considered based on risk-benefit profile and presence of ASCVD risk factors. ASCVD risk factors include LDL cholesterol ≥100 mg/dL (2.6 mmol/L), high blood pressure, smoking, chronic kidney disease, albuminuria, and family history of premature ASCVD. ‡High-intensity statin may be considered based on risk-benefit profile and presence of ASCVD risk factors. #Adults aged <40 years with prevalent ASCVD were not well represented in clinical trials of non-statin-based LDL reduction.

AHA RECOMMENDATION FOR STATIN USE IN ADULTS WITH DIABETES ³
<ul style="list-style-type: none">In patients 40 to 75 years of age with diabetes mellitus and an LDL-C level of ≥70 mg/dL (≥1.8 mmol/L), start moderate-intensity statins without calculating 10-year ASCVD risk.In patients with diabetes mellitus at higher risk, especially those with multiple risk factors or those 50 to 75 years of age, it is reasonable to use a high-intensity statin to reduce the LDL-C level by ≥50%.



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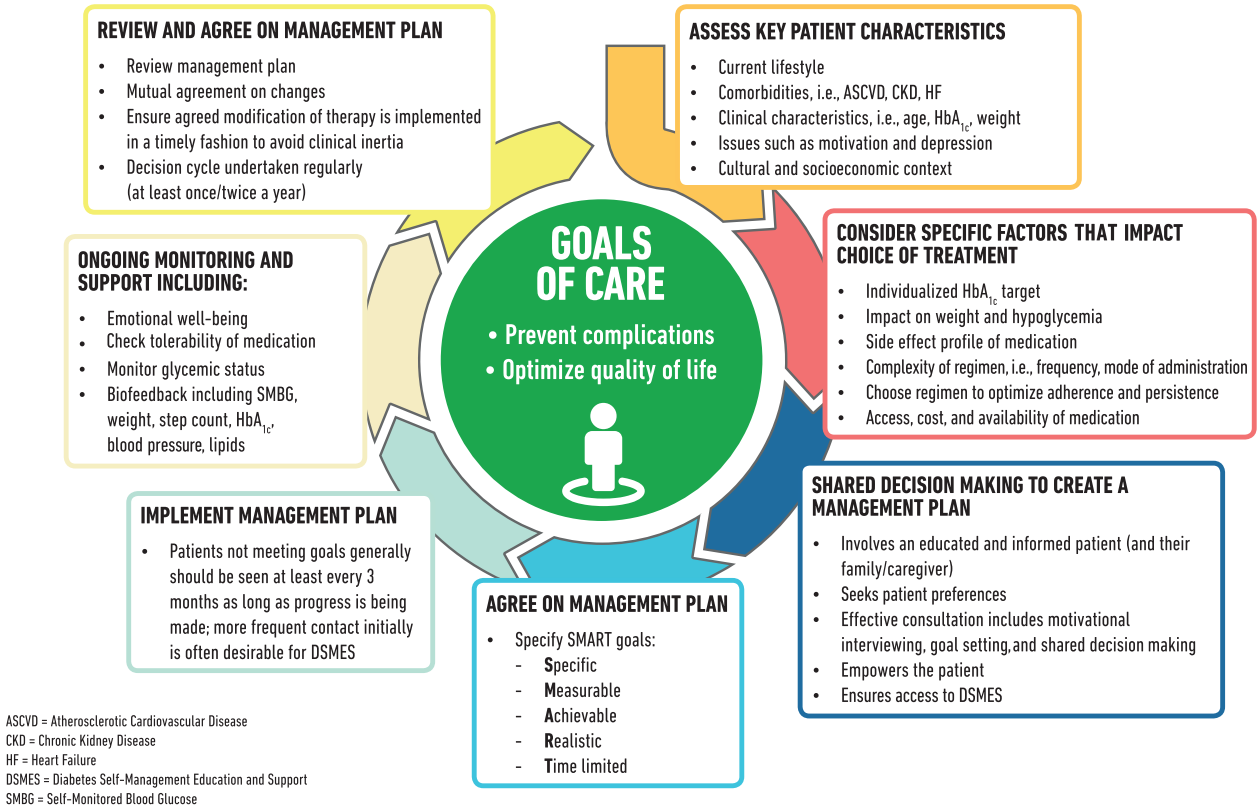


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DECISION CYCLE FOR PATIENT-CENTERED GLYCEMIC MANAGEMENT IN TYPE 2 DIABETES²

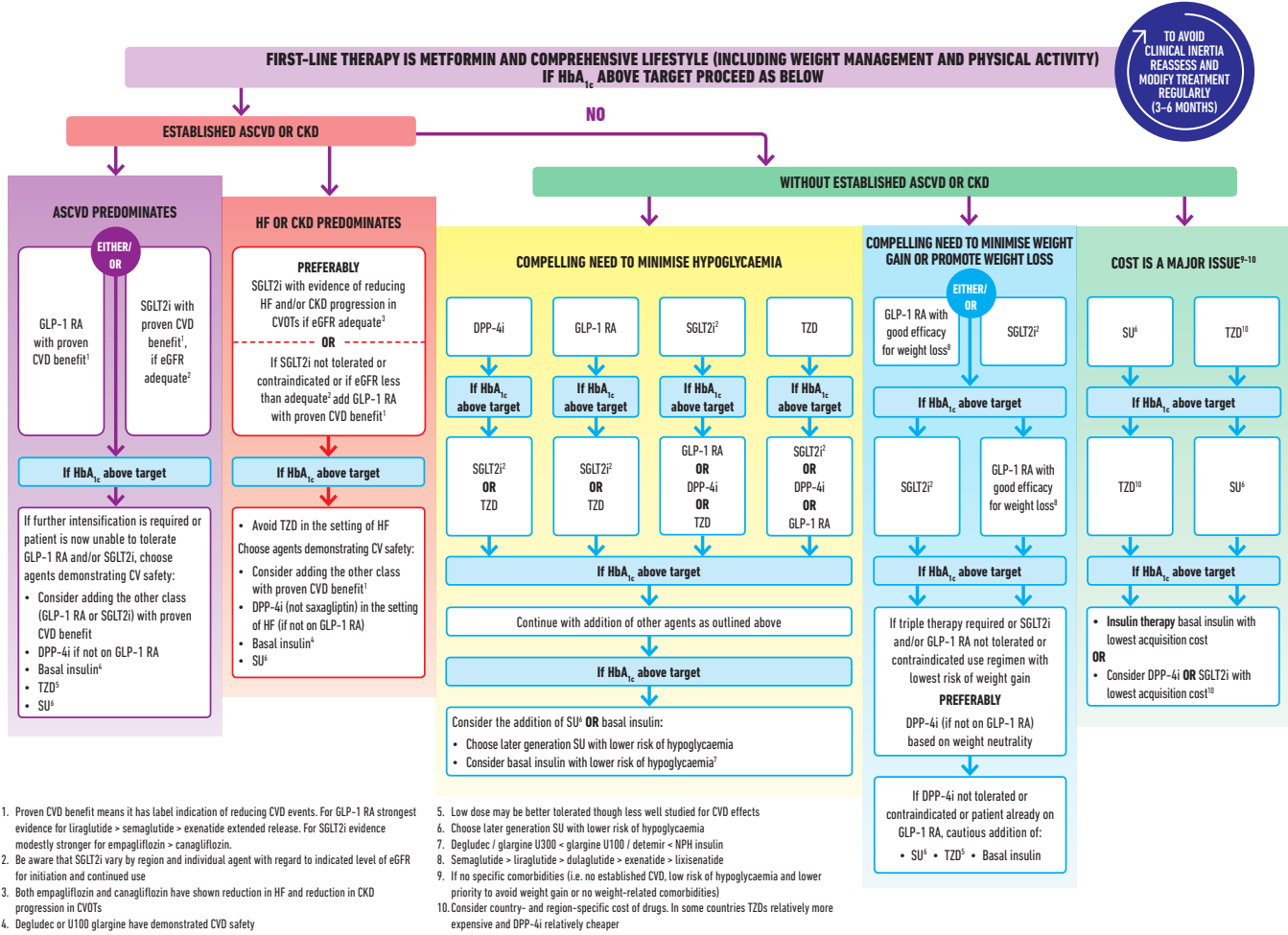
Approaches to management of glycemia in adults with type 2 diabetes, with the goal of reducing complications and maintaining quality of life in the context of comprehensive cardiovascular risk management and patient-centered care. The principles of how this can be achieved are summarized and underpin the approach to management and care. These recommendations are not generally applicable to patients with monogenic diabetes, secondary diabetes, or type 1 diabetes, or to children.



GLUCOSE-LOWERING MEDICATION IN TYPE 2 DIABETES: OVERALL APPROACH.²

CV, CARDIOVASCULAR; DPP-4i, DIPEPTIDYL PEPTIDASE 4 INHIBITOR; GLP-1 RA, GLUCAGON-LIKE PEPTIDE 1 RECEPTOR AGONIST; SGLT2i, SGLT2 INHIBITOR; SU, SULFONYLUREA.

Approaches to management of glycemia in adults with type 2 diabetes, with the goal of reducing complications and maintaining quality of life in the context of comprehensive cardiovascular risk management and patient-centered care. The principles of how this can be achieved are summarized and underpin the approach to management and care. These recommendations are not generally applicable to patients with monogenic diabetes, secondary diabetes, or type 1 diabetes, or to children.



References:

1. Arnett DK, Blumenthal RS, Albert MA, Buroker AB, Goldberger ZD, Hahn EJ, Himmelfarb CD, Khera A, Lloyd-Jones D, McEvoy JW, Michos ED, Miedema MD, Munoz D, Smith SC Jr, Virani SS, Williams KA Sr, Yeboah J, Ziaeian B. 2019 ACC/AHA guideline on the primary prevention of cardiovascular disease: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Circulation. 2019;000:e000-e000. DOI: 10.1161/CIR.0000000000000678

2. American Diabetes Association. Standards of Medical Care in Diabetes—2019. Diabetes Care 2019;42(Suppl. 1).

3. Grundy SM, Stone NJ, Bailey AL, Beam C, Birtcher KK, Blumenthal RS, Braun LT, de Ferranti S, Faiella-Tommasino J, Forman DE, Goldberg R, Heidenreich PA, Hlatky MA, Jones DW, Lloyd-Jones D, Lopez-Pajares N, Ndumele CE, Orringer CE, Peralta CA, Saseen JJ, Smith SC Jr, Sperling L, Virani SS, Yeboah J. 2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA guideline on the management of blood cholesterol: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Circulation. 2018;00:0000000000000625.