VA/DoD Clinical Practice Guidelines

VA/DoD Clinical Practice Guideline for the Management of Type 2 Diabetes Mellitus

Quick Reference Guide

Version 6.0 | 2023

VA/DoD CLINICAL PRACTICE GUIDELINE FOR THE MANAGEMENT OF TYPE 2 DIABETES MELLITUS

Department of Veterans Affairs
Department of Defense

Quick Reference Guide

Recommendations **Algorithm**

Recommendations

The following evidence-based clinical practice recommendations were made using a systematic approach considering four domains as per the GRADE approach (see *Summary of Guideline Development Methodology* in full CPG). These domains include confidence in the quality of the evidence, balance of desirable and undesirable outcomes (i.e., benefits and harms), patient values and preferences and other implications (e.g., resource use, equity, acceptability).

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Prediabetes	*Exercise/ Nutrition*	1.	In adults with prediabetes, we suggest aerobic exercise (such as walking 8–9 miles a week) and healthy eating (with a goal weight loss >3%) to achieve a reduction in body fat mass, weight loss, and improvement in fasting blood glucose.	Weak for	Reviewed, New-added
	Pharmacotherapy	2.	In adults with prediabetes who have participated in healthy lifestyle modification and remain at high risk for progression to type 2 diabetes mellitus, we suggest evaluating patient characteristics (e.g., age, life expectancy, co-occurring conditions, BMI, other risk factors) and offering metformin or other select medications to reduce the risk of progression from prediabetes to type 2 diabetes mellitus.	Weak for	Reviewed, New-added
Telehealth		3.	In adults with type 2 diabetes mellitus, we suggest offering health care delivered through telehealth interventions to improve outcomes.	Weak for	Not Reviewed, Amended

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Management of Type 2 Diabetes Mellitus	*Screening for Comorbidities*	4.	There is insufficient evidence to recommend for or against routine screening or using a specific tool to screen for or diagnose diabetes distress.	Neither for nor against	Reviewed, New added
		5.	In adults with type 2 diabetes mellitus and co-occurring non-alcoholic fatty liver disease, we suggest clinicians should assess for fibrosis using a non-invasive tool (e.g., Fibrosis-4).	Weak for	Reviewed, New-added
		6.	In adults with type 2 diabetes mellitus, there is insufficient evidence to recommend for or against routine screening for fall risk and cognitive impairment to improve outcomes.	Neither for nor against	Reviewed, New-added
	Diabetes Self-Management Education and Support	7.	In adults with type 2 diabetes mellitus, we recommend diabetes self-management education and support.	Strong for	Not Reviewed, Amended
	Glycemic Management	8.	For adults with type 2 diabetes mellitus, we suggest using high glycemic variability over time (e.g., fluctuation in HbA1c or fasting blood glucose) as a prognostic indicator for risk of hypoglycemia, morbidity, and mortality.	Weak for	Reviewed, New-replaced
		9.	We suggest setting an individualized HbA1c target range based on the clinician's appraisal of the risk benefit ratio, patient characteristics, presence or absence of type 2 diabetes mellitus complications, comorbidities, and life expectancy.	Weak for	Not reviewed, Amended
		10.	We suggest an HbA1c range of 7.0–8.5% for most patients, if it can be safely achieved.	Weak for	Not reviewed, Amended
		11.	In insulin-treated adults with type 2 diabetes mellitus who are not achieving glycemic goals, we suggest real-time continuous glucose monitoring to decrease hypoglycemia and improve HbA1c.	Weak for	Reviewed, New-added
Non-pharmacotherapy	*Medical Nutrition Therapy*	12.	For adults with type 2 diabetes mellitus, we suggest a Mediterranean style diet to improve glycemic control, body weight, and hypertension.	Weak for	Reviewed, New-replaced
		13.	For adults with type 2 diabetes mellitus, we suggest a nutrition intervention strategy providing 13–50% of their total daily caloric intake from carbohydrates for diabetes management.	Weak for	Reviewed, New-replaced
		14.	For adults with type 2 diabetes mellitus, we suggest a vegetarian dietary pattern for glycemic control and weight loss.	Weak for	Reviewed, New-added
		15.	For adults with type 2 diabetes mellitus, we suggest against intermittent fasting.	Weak against	Reviewed, New-added

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Non-pharmacotherapy (cont.)	*Exercise*	16.	In adults with type 2 diabetes mellitus, we suggest regular physical activity to improve glycemic control, including but not limited to aerobic exercise, resistance training, or tai chi.	Weak for	Reviewed, New-added
	Stress	17.	In adults with stress related to type 2 diabetes mellitus, we suggest offering a mindfulness-based stress reduction program for short-term improvement.	Weak for	Reviewed, New-added
		18.	For adults with type 2 diabetes mellitus and diabetes distress, there is insufficient evidence to recommend for or against the use of acupuncture, biofeedback, hypnosis, guided imagery, massage therapy, yoga, or tai chi to improve outcomes.	Neither for nor against	Reviewed, New-added
Pharmacotherapy		19.	For adults with type 2 diabetes mellitus with atherosclerotic cardiovascular disease, we recommend glucagon-like peptide-1 receptor agonists or sodium-glucose cotransporter-2 inhibitors with proven cardiovascular benefits to decrease the risk of major adverse cardiovascular events.	Strong for	Reviewed, New-added
		20.	For adults with type 2 diabetes mellitus at high risk of atherosclerotic cardiovascular disease (i.e., chronic kidney disease, left ventricular hypertrophy, heart failure), we suggest glucagon-like peptide-1 receptor agonists or sodium-glucose cotransporter-2 inhibitors with proven cardiovascular benefits to decrease the risk of major adverse cardiovascular events.	Weak for	Reviewed, New-added
		21.	For adults with type 2 diabetes mellitus and heart failure, we recommend a sodium-glucose cotransporter-2 inhibitor to prevent hospital admissions for heart failure.	Strong for	Reviewed, New-added
		22.	For adults with type 2 diabetes mellitus and chronic kidney disease, we recommend sodium-glucose cotransporter-2 inhibitors with proven renal protection to improve renal outcomes.	Strong for	Reviewed, New-added
		23.	For adults with type 2 diabetes mellitus and chronic kidney disease who are not good candidates for a sodium-glucose cotransporter-2 inhibitor, we recommend a glucagon-like peptide-1 receptor agonist with proven renal protection to improve macroalbuminuria.	Strong for	Reviewed, New-added
		24.	In adults with type 2 diabetes mellitus who have cardiovascular disease or renal disease, we suggest that the addition of a sodium-glucose cotransporter-2 inhibitor or glucagon-like peptide-1 receptor agonist be considered, even if the patient has already achieved their individualized target range for glycemic control.	Weak for	Reviewed, New-added
		25.	In adults with type 2 diabetes mellitus, especially those 65 years and older, we suggest prioritizing drug classes other than insulin, sulfonylureas, or meglitinides to minimize the risk of hypoglycemia, if glycemic control can be achieved with other treatments.	Weak for	Reviewed, New-added
		26.	In adults with type 2 diabetes mellitus who have co-occurring cognitive impairment or risk of falls, there is insufficient evidence to recommend for or against specific treatment strategies for glucose lowering to reduce the risk of harms.	Neither for nor against	Reviewed, New-added

[a] For additional information, see Determining Recommendation Strength and Direction (located in full CPG).

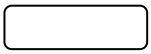
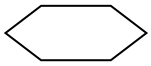
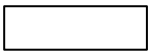
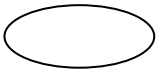
[b] For additional information, see Recommendation Categorization (located in full CPG).

Algorithm

This CPG's algorithm is designed to facilitate understanding of the clinical pathway and decision-making process used in managing patients with T2DM. This algorithm format represents a simplified flow of the management of patients with T2DM and helps foster efficient decision making by providers. It includes

- Steps of care in an ordered sequence,
- Decisions to be considered,
- Decision criteria recommended, and
- Actions to be taken.

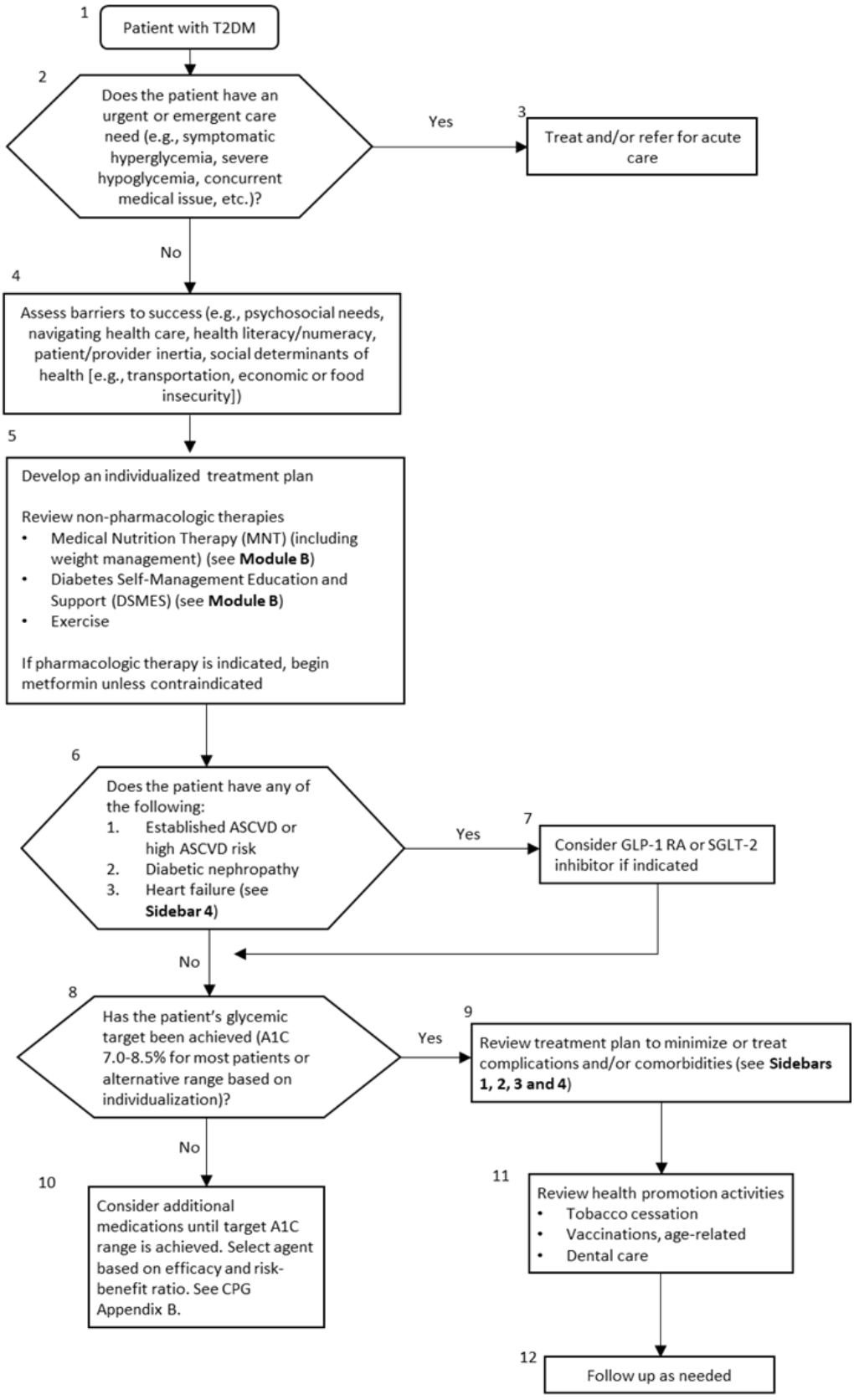
The algorithm is a step-by-step decision tree. Standardized symbols display each step, and arrows connect the numbered boxes indicating the order in which the steps should be followed

Shape	Description
	Rounded rectangles represent a clinical state or condition
	Hexagons represent a decision point in the process of care, formulated as a question that can be answered "Yes" or "No"
	Rectangles represent an action in the process of care
	Ovals represent a link to another section within the algorithm

The algorithm sidebars can be found in the full CPG at https://www.healthquality.va.gov/.

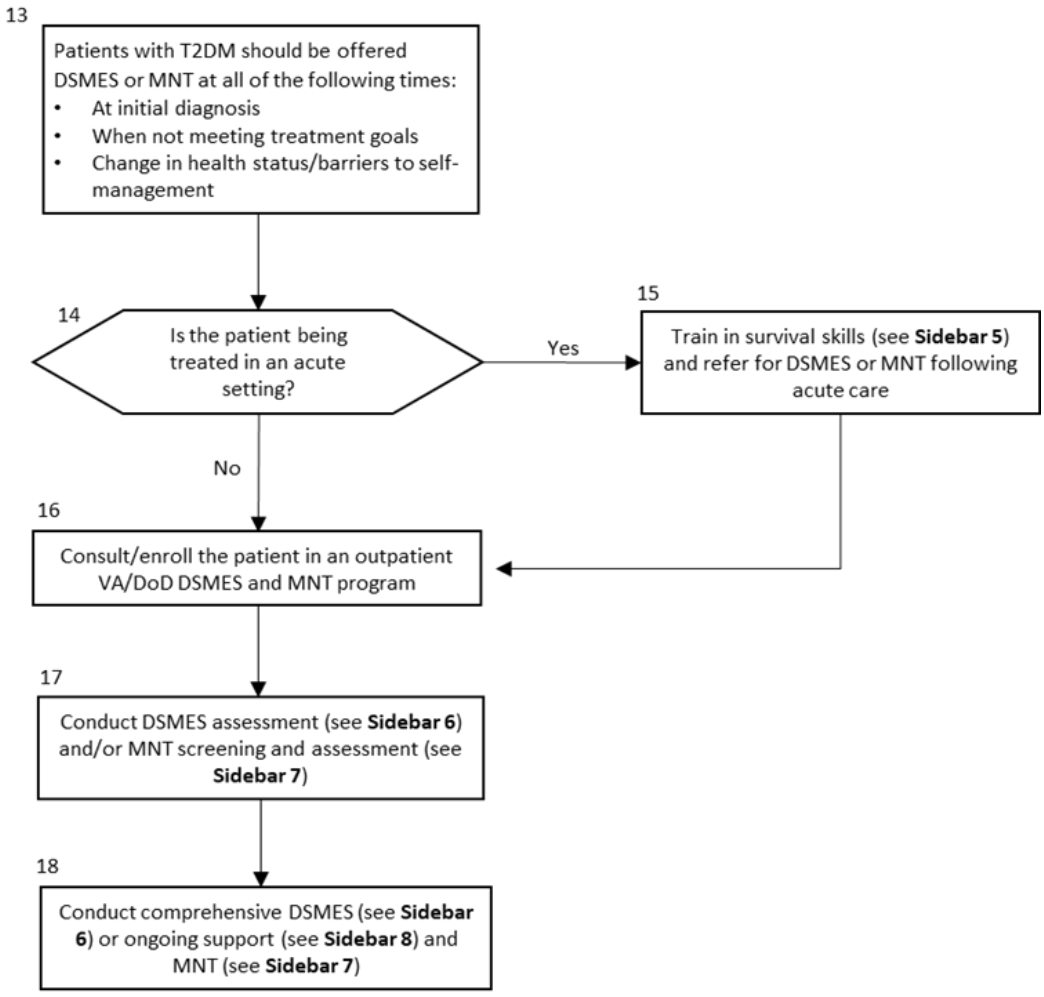
Appendix I (in the full CPG) contains the alternative text descriptions of the algorithm.

Module A: T2DM Management



Abbreviations: ASCVD: atherosclerotic cardiovascular disease; GLP-1 RA: glucagon-like peptide 1 receptor agonist; SGLT-2 inhibitor: sodium-glucose transporter 2 inhibitor; MNT: Medical Nutrition Therapy; T2DM: type 2 diabetes mellitus

Module B: Self-Management Education and Support



Abbreviations: DoD: Department of Defense; DSMES: diabetes self-management education and support; MNT: Medical Nutrition Therapy; T2DM: type 2 diabetes mellitus; VA: Department of Veterans Affairs

Access to the full guideline and additional resources is available at: https://www.healthquality.va.gov/.