

Guidelines for Adult Diabetes (DM) Care

CLINICAL PRIORITIES A B C'S ■ A1C ■ Blood Pressure ■ Cholesterol ■ Smoking Status			
EXAM/TEST	FREQUENCY	GOAL RECOMMENDATION	
HISTORY & PHYSICAL	Blood Pressure (BP)¹	Every visit	<130/80 with individual adjustment as appropriate. (S29)
	Weight & BMI	Every visit	Healthy weight=BMI≥18.5 and < 25. Advise weight management to optimize BMI.
	Comprehensive Foot Exam²	Annually	Sensory, visual and vascular inspection, without shoes and socks. Teach protective foot care if sensation diminished. Refer to podiatrist.
	Visual Inspection of Feet	Every visit	Inspect skin for signs of pressure and breakdown to prevent ulceration and infection. Teach protective foot care.
	Dilated Retinal Exam	Annually ³	Detect retinopathy/refer to eye care professional. ³
	Dental	Every six months	Evaluate teeth and gums. Encourage daily brushing and flossing. Refer to dentist.
LABORATORY*	A1C	Two to four times yearly	General Goal: <7.0 with individualized goal adjustment to be more or less stringent for individual pts. as appropriate. ⁴
	Fasting Lipid Profile¹	Annually ⁵	For pts. without overt CVD, goal is LDL cholesterol of <100 mg/dl. ⁶
	Urine Microalbumin/Creatinine Ratio¹	At diagnosis and annually ⁷	Perform test on spot urine for albumin and creatinine, calculate ratio: ≥30 µg alb/mg creatinine is abnormal. (S34,35)
	eGFR (Calculated from Serum Creatinine)	Annually	Obtain estimated glomerular filtration rate (eGFR) ⁸ to stage the level of chronic kidney disease (CKD). Refer to CKD staging and guidelines on management of CKD in DM (S34,35). See Resource A.
IMMUNIZATIONS	Flu Vaccine	Annually	
	Pneumovax	Once	Administer to all pts. with DM. A one-time revaccination is recommended for individuals >64 years of age previously immunized when they were <65 years of age if the vaccine was administered >5 years ago. ⁹
COUNSELING AND RISK REDUCTION	Tobacco Use¹	Annual/Ongoing	Assess smoking status, advise pts. to quit. Refer to NYS Quitline. See Resource B.
	Psychosocial Adjustment	Annual/Ongoing	Suggest support groups/counsel/refer. Assess for depression or other mood disorder. See Resource C.
	Sexual Functioning	Annual/Ongoing	Discuss function and therapy options with both male and female pts.
	Preconception	Initial/Ongoing	Target A1C as close to normal as possible (<7%) before conception is attempted. Evaluate medications. Statins, ACE, ARBs and most noninsulin therapies contraindicated prior to and during pregnancy. (S42)
	Diabetes During Pregnancy	Initial/Ongoing	For pregnant women with type 1 or type 2 DM, an A1C of <6% is recommended if it can be achieved without excessive hypoglycemia. Evaluate medications. Statins, ACE, ARBs and most noninsulin therapies contraindicated prior to and during pregnancy. (S42) Comprehensive eye exam during 1st trimester. (S36) Refer to high risk program.
	Aspirin Therapy	Ongoing	Use aspirin therapy (75-162 mg/day) as a secondary prevention strategy in pts. with DM with a history of CVD. (S32)
	ACE Inhibitor/ARB	Ongoing	Pharmacological therapy regimen for non-pregnant pts. with DM and hypertension should include either ACE inhibitor or ARB. (S29) In the treatment of micro- or macroalbuminuria, either ACE inhibitors or ARBs should be used. If one class is not tolerated, the other should be substituted. (S34)
REVIEW SELF-MANAGEMENT SKILLS	Patient and Clinician Jointly Set Goals	Initial/Every visit	Ongoing setting and monitoring of A1C, BP, and lipid goals. Support pt.'s behavior change efforts including physical activity; healthy eating; tobacco avoidance; weight management; effective coping; medication management. Refer to DM self-management education (DSME) at diagnosis and as needed. (S49) ¹⁰
	Physical Activity	Initial/Ongoing	Assess and prescribe based on pt.'s health status. (S25) ¹¹
	Nutrition	Initial/Ongoing	If BMI ≥25, advise weight management. ¹⁰ Assess for alcohol use. Recommend Medical Nutrition Therapy (MNT) as needed. See Resource D.
	Medication Review/Adherence	Initial/Ongoing	Review current medications and adherence. Adjust medications as indicated to achieve target goals for glucose, BP, and lipids. Assess and address barriers to pt. adherence.
	Self Monitoring Blood Glucose (SMBG)	Initial/Ongoing	Pt. to monitor glucose as necessary to minimize risk of hyper- and hypoglycemic episodes. ¹² Review and check pt. log book for accuracy.

*Additional monitoring: EKG (initial/as indicated: pt. ≥40 y.o. or DM ≥10 yrs), Thyroid Assessment (initial/as indicated, palpation & function), Blood Glucose & Urinalysis (as indicated)

Developed by the New York Diabetes Coalition (NYDC) in collaboration with the New York State Department of Health, Diabetes Prevention & Control Program. Based on the American Diabetes Association Clinical Practice Recommendations and reviewed yearly. Visit http://professional.diabetes.org/CPR_search.aspx for full recommendations or specific citations (i.e. S33). The guidelines are minimum recommendations and are not intended to replace the clinical judgment of health care providers.

RESOURCES

A. GFR Calculator & PC Download: www.nkdep.nih.gov/lab-evaluation/gfr-calculators.shtml
Stages of Chronic Kidney Disease: www.kidney.org/professionals/kdoqi/guidelines.cfm

B. Smoking Cessation Counseling:
NYS Smokers' Quitline: 1-866-NYQUITS (697-8487), www.nysmokefree.com
www.nyhpa.org/pdf/Smoking_Cessation_Guideline.pdf
www.nyhpa.org/pdf/Guide_Your_Patients.pdf
www.mssny.org/mssnyip.cfm?c=i&nm=Smoking_Cessation
www.surgeongeneral.gov/tobacco/tobaqrq.htm

C. MacArthur Depression Screening and Management Toolkit:
www.depression-primarycare.org/clinicians/toolkits/full

D. Nutrition:
ADA Nutrition Principles http://care.diabetesjournals.org/content/31/Supplement_1/S61.full
American Diabetes Association: MNT services are defined in statute as "nutritional diagnostic, therapy, and counseling services for the purpose of disease management which are furnished by a registered dietitian or nutrition professional...pursuant to a referral by a physician."

FOOTNOTES

¹Annual review of CVD risk factors.

²Foot examination should include inspection, assessment of foot pulses, and testing for loss of protective sensation (LOPS) (10-g monofilament plus vibration testing, e.g.tuning fork). (S37)

³Type 1: Within 5 yrs after onset, then annually. Type 2: Refer at time of diagnosis, then annually. ADA recommends ophthalmologist or optometrist. Fundus photography may serve as a screening tool for retinopathy, but is not a substitute for a comprehensive eye exam. (S35)

⁴At least 2x a year in pts. who are meeting treatment goals. Quarterly in pts. whose therapy has changed or who are not meeting glycemic goals. (S18) See Summary of Glycemic Recommendations Table 10. (S20)

⁵In adults with low-risk lipid values (LDL cholesterol <100 mg/dl, HDL cholesterol >50 mg/dl, and triglycerides <150 mg/dl), repeat every 2 years. (S30)

⁶Statin therapy should be added to lifestyle therapy, regardless of baseline lipid levels for DM pts. with overt CVD, and for those without CVD who are >40 years and have one or more other CVD risk factors. (S30)

⁷Type 1: Annual with DM duration ≥ 5 years; Type 2: Annual, starting at diagnosis. (S34)

⁸When the eGFR is less than <60 ml/min per 1.73 m², screening for anemia, malnutrition, and metabolic bone disease is indicated. Consider referral to a physician experienced in the care of kidney disease when there is uncertainty about the etiology of kidney disease. (S35)

⁹Also revaccinate for nephrotic syndrome, chronic renal disease and immunocompromised states, such as after transplantation. (S28) Administer hepatitis B vaccination to adults with diabetes as per Centers for Disease Control and Prevention (CDC) recommendations. (S28)

¹⁰To locate a Certified Diabetes Educator (1-800-832-6874, www.diabeteseducator.org) or Registered Dietitian (www.eatright.org)

¹¹Advise physical activity at least 150 min/week of moderate-intensity aerobic activity including resistance training 3x's week. (S25)

¹²Recommend postprandial testing (goal <180 mg/dl) when A1C levels are not optimal but pre-meal targets are being met. (S20)

Diabetes Mellitus Flow Sheet**

Record visit date at top of column, record test results and/or service date(s) in spaces below. Check (✓) when item complete; mark with "C" if item is contraindicated; "D" if patient declined; "R" if referred. **Highlighted items** are required for one or more nationally endorsed diabetes management clinical performance measures.

Name _____

ID/MRN _____

DOB _____

Height _____ Date Recorded _____ Sex M F

Other Care Clinicians _____

EXAMINATION/TEST	FREQUENCY	VISIT DATE / /			
Complete History and Physical Exam (including risk factors, exercise, and diet history)	Initial visit and annually at discretion of clinician	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blood Pressure Goal: <130/80	Every visit	<input type="checkbox"/> BP: ____ / ____			
Weight & BMI Goal: BMI ≥18.5 and <25	Every visit	<input type="checkbox"/> Wgt: _____ <input type="checkbox"/> BMI: _____			
Comprehensive Foot Exam Sensory/monofilament and Pulses	Annually	<input type="checkbox"/> Sensory/monofilmt <input type="checkbox"/> Pulses			
Visual Inspection of Feet	Every visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dilated Retinal Exam	Annually*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dental	Every six months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A1C General Goal: <7.0*	Two to four times yearly*	<input type="checkbox"/> A1C: _____			
Fasting Lipid Profile LDL-C <100mg/dl*	Annually*	<input type="checkbox"/> LDL-C: _____			
Urine Microalbumin/Creatinine Ratio* ≥30 µg alb/mg creatinine is abnormal	At diagnosis and annually	<input type="checkbox"/> Ratio: _____			
eGFR (Calculated from Serum Creatinine)*	Annually	<input type="checkbox"/> eGFR: _____			
Flu Vaccine October 1–March 31	Annually	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pneumovax	Once or twice*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discuss High Risk Behaviors Counsel on smoking cessation and alcohol use	Every visit Smoking Alcohol	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Counseled
Psychosocial Adjustment Screen for depression or other mood disorder	Annual/Ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discuss Sexual Functioning*	Annual/Ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discuss Preconception/Pregnancy Many medications contraindicated*	Initial/Ongoing*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes Self-Management Education (DSME)	Initial visit and at clinician's discretion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-Management Goal Assessment Review patient's goals for self-management* including dietary needs, physical activity	Initial/Ongoing	<input type="checkbox"/> Self-Mgmt. goal:			
Medical Nutrition Therapy (MNT) Assess and refer as needed	Initial/Ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment of Hyper/Hypoglycemia Review signs, symptoms and treatment Review self-monitoring blood glucose record	Initial/Ongoing	<input type="checkbox"/> <input type="checkbox"/> SMBG			
Review Current Medications and Medication Adherence* Include all medications to control glucose, blood pressure and lipids, aspirin/anti-platelet agents; ACEIs/ARBs; insulin/oral hypoglycemic agents; statins/lipid control agents; over-the-counter, complementary and alternative medicine. Review/adjust medications as indicated to achieve target goals for glucose, blood pressure and lipids.	Initial/Ongoing Check (✓) box if currently prescribed Mark "C" if item is contraindicated Mark "D" if patient declined Mark "A" if medication adjusted Mark "X" if medication stopped	<input type="checkbox"/> Insulin <input type="checkbox"/> Oral hypoglycemic <input type="checkbox"/> ACEI/ARB <input type="checkbox"/> Statin/lipid control <input type="checkbox"/> ASA/anti-platelet	<input type="checkbox"/> Insulin <input type="checkbox"/> Oral hypoglycemic <input type="checkbox"/> ACEI/ARB <input type="checkbox"/> Statin/lipid control <input type="checkbox"/> ASA/anti-platelet	<input type="checkbox"/> Insulin <input type="checkbox"/> Oral hypoglycemic <input type="checkbox"/> ACEI/ARB <input type="checkbox"/> Statin/lipid control <input type="checkbox"/> ASA/anti-platelet	<input type="checkbox"/> Insulin <input type="checkbox"/> Oral hypoglycemic <input type="checkbox"/> ACEI/ARB <input type="checkbox"/> Statin/lipid control <input type="checkbox"/> ASA/anti-platelet
Comments (e.g. assessment of complications, adherence to plan, follow up, referrals, etc.)					
Signature/Initials					

* See Guidelines on reverse for details and exceptions.

** American Diabetes Association, Standards of Medical Care for Patients with Diabetes Mellitus, Diabetes Care Vol. 34, Supplement 1, Clinical Practice Recommendations, January, 2011. To access the current American Diabetes Association Clinical Practice Recommendations, go to http://professional.diabetes.org/CPR_search.aspx. The ADA Clinical Practice Guidelines are reviewed yearly.