

A Collaborative Guideline for the Management of the Adult Patient with Diabetes

MVP Health Care, as part of its continuing Quality Improvement Program, adopted diabetes guidelines based on the most recent recommendations of the American Diabetes Association (ADA).

Statistics -Morbidity & Mortality

- 17.9 million individuals in the United States have been diagnosed with diabetes and an estimated 5.7 million are undiagnosed with the condition.
- Diabetes is a leading cause of kidney failure, blindness in adults and amputations of the legs and feet.
- Individuals with diabetes have approximately twice the likelihood of dying than individuals of the same age without the condition.
- Diabetes has been estimated to cost the nation \$174 billion in medical costs and lost productivity.

Source: Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2007. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008.

Key Guideline Messages:

The ADA recently released its 2012 updates to the Clinical Practice Recommendations. Key changes include:

- The Standards of Medical Care for Diabetes position statement has undergone significant changes:
 - Two new sections have been added: "Assessment of Common Comorbid Conditions" and "Diabetes and Driving."
 - A new table has been added for non-insulin therapies for hyperglycemia in type 2 diabetes. The table includes the properties of medications as well as a comparison of the disadvantages, advantages and costs.
 - There have been numerous changes in the following sections to support new and growing evidence:
 - Introduction - this section was revised to include more information on the review process, a link to the evidence supporting the recent changes was included as well as a link for public comment on the 2012 standards.
 - Therapy for Type 2 Diabetes (section V.D.2) - this section was revised to include more specific recommendations for starting and advancing pharmacotherapy for hyperglycemia.
 - Strategies for Improving Diabetes Care (section X) - this section was revised to incorporate additional evidence on the effectiveness of restructuring systems of chronic care delivery.
 - Position statements have been changed as follows:
 - A revised statement has been added, "Diabetes Management at Camps for Children with Diabetes."

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- A new statement has been added, "Driving and Diabetes."

For more detail, please refer to the complete 2012 recommendations which can be found at:
http://care.diabetesjournals.org/content/35/Supplement_1.

The guideline included in this manual contains key recommendations for risk factor reduction among individuals with diabetes:

- Regular blood pressure, weight, BMI monitoring and comprehensive foot exam as part of the History and Physical.
- Annual dilated eye exam by an eye care professional.
- Dental visits every six months.
- Hemoglobin A1c testing every three to six months and achieving level less than 7 percent.
- Lipid profile, urine microalbumin / creatinine ratio and estimated GFR testing at least annually.
- Immunizations (e.g. flu and pneumovax).
- Counseling and risk reduction (e.g. tobacco use, psychosocial adjustment and sexual functioning).
- Preconception planning and pregnancy recommendations (e.g. HbA1c, medications).
- Aspirin therapy (75-162 mg/day) as a secondary prevention strategy in those with diabetes with a history of CVD.
- ACE Inhibitor/ ARB usage in non-pregnant persons with micro- or macroalbuminuria; also recommended for those with hypertension, CVD or risk factors for CVD.
- Review of patient self-management skills: physical activity, nutrition, self blood glucose monitoring and foot screening.

Guideline Availability and Other Support:

Guidelines for our New York Practitioners were developed in collaboration with other health plans across the state. This one-page document that is easy to reference has been provided in this manual. Also included is a diabetes documentation flow sheet. Both of these pages were originally developed by a diabetes coalition located in Westchester County and updated in 2011 to reflect the most recent ADA recommendations.

In Vermont, MVP endorsed the Vermont consensus guideline created by the Vermont Department of Health. This guideline is also based on the ADA guidelines. These recommendations can be found at: <http://healthvermont.gov/prevent/diabetes/documents/DiabetesGuide0109.pdf>. Again, our goal is to ease your administrative burden with respect to clinical practice guidelines.

In conjunction with these guidelines, MVP Health Care offers a Condition Health Management program for our members with a diagnosis of Diabetes. If you would like to refer one of your patients to this program, please call the Health Care Operations Department at 1-866-942-7966. More information on this and MVP's other health programs may also be found on MVP's website: <https://www.mvphealthcare.com/provider/documents/CHMReferralGuide.pdf>.

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*This guideline is not intended to replace the role of clinical judgment by the physician in the management of this, or any other disease entity. It is an educational guideline to assist in the delivery of good medical care. **All treatment decisions are ultimately up to the physician.*** Where medication recommendations are made, please refer to each health plan's formulary for coverage considerations.

MVP Health Care updates its clinical guidelines at least every two years. The review process is also initiated when new scientific evidence or national standards are published. Practitioners are alerted via the web site, and by written notices from the plan via fax or newsletter. A hard copy of the clinical guideline can be requested by calling the MVP Quality Improvement Department at 1(800)777-4793 extension 12602.

Guidelines for Adult Diabetes (DM) Care

Developed by the **New York Diabetes Coalition** in collaboration with the New York State Dept. 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.

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. (S27)
	Weight & BMI	Every visit	Healthy weight=BMI≥18.5 and < 25. Advise weight management to optimize BMI.
	Comprehensive Foot Exam ²	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 6 months	Evaluate teeth and gums. Encourage daily brushing and flossing. Refer to dentist.
LABORATORY*	A1C	2-4 times yearly	General Goal: <7.0 with individualized goal adjustment to be more or less stringent for individual pts. as appropriate. ⁴
	Fasting Lipid Profile ¹	Annually ⁵	For pts. without overt CVD, goal is LDL cholesterol of <100 mg/dl. ⁶
	Urine Microalbumin/ Creatinine Ratio ¹	At diagnosis and annually ⁷	Perform test on spot urine for albumin and creatinine, calculate ratio: ≥30 µg alb/mg creatinine is abnormal. (S34,38)
	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 Use ¹	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. (S41-42)
	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. (S35) 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. (S31)
REVIEW SELF-MANAGEMENT SKILLS	ACE Inhibitor/ARB	Ongoing	Pharmacological therapy regimen for non-pregnant (S42) pts. with DM and hypertension should include either ACE inhibitor or ARB. (S27) 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. (S33)
	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. (S22) ¹⁰
	Physical Activity	Initial/ongoing	Assess and prescribe based on pt.'s health status. (S24) 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)

RESOURCES:

- A. GFR Calculator & PC Download: www.nkdep.nih.gov
 Stages of Chronic Kidney Disease: www.kidney.org/professionals/kdoqi/guidelines.cfm
- B. Smoking Cessation Counseling:
 NYS Smokers' Quitline: 1-866-NYQUIT (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/tobaqrg.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."
www.diabetesarchive.net/for-health-professionals-and-scientists/recognition/mnt-faqs.jsp#Q1

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. (S21)
- 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. (S29)
- 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. (S29)
- ⁷Type 1: Annual with DM duration ≥ 5 years; Type 2: Annual, starting at diagnosis. (S33)
- 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. (S27)
- ¹⁰To locate 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. (S24)
- ¹²Recommend postprandial testing (goal <180 mg/dl) when A1C levels are not optimal but pre-meal targets are being met. (S21)



Diabetes Mellitus Flow Sheet^{**}

Developed by the **New York Diabetes Coalition** in collaboration with the New York State Dept. of Health, Diabetes Prevention & Control Program.

Name: _____

ID/MRN: _____

DOB: _____

Height: _____ Date Recorded: _____ Sex: M F

Other Care Clinicians: _____

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.

EXAMINATION/TEST	FREQUENCY	VISIT DATE / /	VISIT DATE / /	VISIT DATE / /	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: ____ / ____	<input type="checkbox"/> BP: ____ / ____	<input type="checkbox"/> BP: ____ / ____	<input type="checkbox"/> BP: ____ / ____
Weight & BMI Goal: BMI ≥18.5 and <25	Every visit	<input type="checkbox"/> Wgt: _____ <input type="checkbox"/> BMI: _____	<input type="checkbox"/> Wgt: _____ <input type="checkbox"/> BMI: _____	<input type="checkbox"/> Wgt: _____ <input type="checkbox"/> BMI: _____	<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	<input type="checkbox"/> Sensory/monofilmt <input type="checkbox"/> Pulses	<input type="checkbox"/> Sensory/monofilmt <input type="checkbox"/> Pulses	<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 6 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: _____	<input type="checkbox"/> A1C: _____	<input type="checkbox"/> A1C: _____	<input type="checkbox"/> A1C: _____
Fasting Lipid Profile LDL-C <100mg/dl*	Annually*	<input type="checkbox"/> LDL-C: _____	<input type="checkbox"/> LDL-C: _____	<input type="checkbox"/> LDL-C: _____	<input type="checkbox"/> LDL-C: _____
Urine Microalbumin/Creatinine Ratio* ≥30 µg alb/mg creatinine is abnormal	At diagnosis and annually	<input type="checkbox"/> Ratio: _____	<input type="checkbox"/> Ratio: _____	<input type="checkbox"/> Ratio: _____	<input type="checkbox"/> Ratio: _____
eGFR (Calculated from Serum Creatinine)*	Annually	<input type="checkbox"/> eGFR: _____	<input type="checkbox"/> eGFR: _____	<input type="checkbox"/> eGFR: _____	<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:	<input type="checkbox"/> Self-Mgmt. goal:	<input type="checkbox"/> Self-Mgmt. goal:	<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	<input type="checkbox"/> <input type="checkbox"/> SMBG	<input type="checkbox"/> <input type="checkbox"/> SMBG	<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.