

**JOSLIN DIABETES CENTER AND JOSLIN CLINIC  
GUIDELINE FOR SPECIALTY CONSULTATION/REFERRAL 4-01-05**

The Joslin Guideline for Specialty Consultation/Referral is designed to assist primary care physicians in individualizing the care and goals for adult patients with diabetes, including those who are pregnant. This Guideline is not intended to replace sound medical judgment or clinical decision-making. Clinical judgment determines the need for adaptation in all patient care situations; more or less stringent interventions may be necessary. This Guideline will be modified as changes in clinical practice evolve and as clinical evidence suggests.

The objectives of the Specialty Consultation/Referral Guideline are to support clinical practice and influence clinical behavior so that outcomes are improved and patient expectations are reasonable and informed. This Guideline was developed by a task force and approved through the Clinical Oversight Committee that reports to the Chief Medical Officer (CMO) of the Joslin Clinic, Joslin Diabetes Center, Inc. It was established after careful review of current evidence, medical literature and sound clinical practice.

All patients with diabetes require assessment by appropriately trained educators for evaluation of education requirements, glucose management training, medical nutrition therapy, identification and prevention of complications, and activity/exercise guidance.

Diabetes educators are encouraged to seek Certified Diabetes Educator (CDE) certification, which is granted by the National Certification Board for Diabetes Educators and helps ensure a broad knowledge base of diabetes care and education principles. CDE's include registered nurses, registered dietitians, physicians, exercise physiologists, pharmacists and social workers.

**Pediatric patients:** Refer all pediatric patients with type 1 diabetes to an endocrinologist/diabetes specialist for evaluation and follow-up. Pediatric patients with type 2 diabetes should be referred to an endocrinologist/diabetes specialist for evaluation and consideration of long-term follow-up.

<b>System/Condition</b>	<b>Status/Circumstance</b>	<b>Educator Referral</b>	<b>Specialist Consultation/Referral</b>
<b>NEWLY DIAGNOSED</b>	At time of diagnosis	Diabetes educator for initial evaluation and training, including monitoring, general diabetes principles and physical activity  Registered dietitian for medical nutrition therapy	Endocrinologist/diabetes specialist to initiate management plan for acute hyperglycemia in selected patients  Endocrinologist/diabetes specialist to initiate plan for intensive control
<b>GLYCEMIC CONTROL</b>  <b>Hemoglobin A1C</b> <i>Reference range:4.0 – 6.0%</i>	A1C 7.0-7.9%	Consider referral to diabetes educator for general re-evaluation, as well as review of diabetes self-management training, physical activity and ongoing consultation ♦ Consider referral to registered dietitian for medical nutrition therapy	Consider referral to endocrinologist/diabetes specialist if individualized patient goals not met through intensive treatment in office after 6 months
	A1C ≥ 8.0%	Diabetes educator for evaluation, glucose management training, and ongoing consultation ♦ Registered dietitian for medical nutrition therapy	Endocrinologist/diabetes specialist if A1C ≥ 8.0% for ≥ 6 months or any A1C 1.4 x the upper limit of normal
	Severe* or recurrent hypoglycemia	Diabetes educator for hypoglycemic prevention, use of glucagon, evaluation and education on patient safety issues, and blood glucose awareness training, if available	Endocrinologist/diabetes specialist if recurrent episodes of severe hypoglycemia
	Initiation of insulin pump therapy or complex multi-dose insulin regimen	Diabetes educator for training in pump use ♦ Registered dietitian for training in carbohydrate counting Encourage family/friend participation	Endocrinologist/diabetes specialist

\* Episodes in which the patient experiences coma, seizure or suspected seizure, or impairment sufficient to require the assistance of another person

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<b>BLOOD PRESSURE</b>	Blood pressure $\geq$ 130/80 mmHg on 3 occasions	Consider registered dietitian referral to review sodium intake, weight management issues and lifestyle modification	Nephrologist or hypertension specialist for difficulties in blood pressure management or inability to reach goals with conventional treatment over a 6-12 month period  Endocrinologist or hypertension specialist if a secondary cause is suspected
<b>CARDIOVASCULAR MANAGEMENT</b>	Presence of known CAD, unstable angina, chest pain suggestive of ischemia, CHF, PVD, ECG changes consistent with ischemia, arrhythmias including: · atrial fibrillation · atrial flutter · SVT · ventricular tachycardia · second and third degree heart blocks	Consider referral to registered dietitian for medical nutrition therapy especially if body mass index (BMI), lipid and/or blood pressure goals are not achieved  Consider referral to exercise physiologist and/or cardiac rehab program based on recommendations of cardiologist	Cardiologist consultation to establish optimal medical treatment
	At risk patients: > 35 years old with type 1 or type 2 diabetes > 10 years <i>or</i> type 2 diabetes and at least one of the following:  · Microalbuminuria · Overweight/obesity: BMI > 28kg/m <sup>2</sup> · Dyslipidemia: LDL-C $\geq$ 100 mg/dl, HDL-C < 40 mg/dl, TG > 200 mg/dl · Known macrovascular disease (PVD) · Family h/o CAD: under 55 y/o · Hypertension: >140/90 mmHg on 3 occasions · Smoker · Start of new physical activity · Autonomic neuropathy evidenced by > Cardiac autonomic function abnormalities > Orthostatic hypotension > Erectile dysfunction > Gastroparesis	Consider referral to registered dietitian for medical nutrition therapy especially if BMI, lipid and/or blood pressure goals are not achieved  Smoking cessation program	At-risk patients: Consider stress test - consider stress echo or stress thallium - optimal test varies with patient's clinical situation ♦ Consider repeat testing 3-5 years after initial test if clinically indicated ♦ If positive, consult with cardiologist  See Lipid Management section  See Blood Pressure Management section

System/Condition	Status/Circumstance	Educator Referral	Specialist Consultation/Referral
<b>LIPID MANAGEMENT</b>	LDL cholesterol $\geq$ 100 mg/dl with or without cardiovascular disease	Registered dietitian for medical nutrition therapy and physical activity program	Endocrinologist/lipid specialist if LDL goal not met within 6-12 months
	Triglycerides > 200 mg/dl (fasting sample) and non-HDL cholesterol > 130 mg/dl	Registered dietitian for medical nutrition therapy and physical activity program	Endocrinologist/lipid specialist after aggressive lifestyle and medical intervention
	Diabetic lipemia (TG >1000 mg/dl)	Registered dietitian for medical nutrition therapy and physical activity program	Endocrinologist/lipid specialist
	Combined dyslipidemia (LDL-C $\geq$ 100 mg/dl, and TG > 200 mg/dl, or HDL-C < 40 mg/dL).	Registered dietitian for medical nutrition therapy and physical activity program	Endocrinologist/lipid specialist after aggressive lifestyle and medical intervention
	Intolerance to statins or insufficient therapeutic response		Endocrinologist/lipid specialist
<b>MANAGEMENT OF FEET</b>	At-risk* patients with acute problems	Diabetes educator for foot care and diabetes self-management education	Podiatrist for routine care and evaluation
	Current ulceration or non-healing ulcer, or infection	Diabetes educator for foot care and diabetes self-management education	Podiatrist or vascular surgeon for evaluation and follow-up care
	Limb-threatening ulcer or infection	Diabetes educator for foot care and diabetes self-management education	Podiatrist or vascular surgeon for immediate evaluation and treatment
	Claudication symptoms severe enough to cause disability or decreased quality of life	Diabetes educator for foot care and diabetes self-management education	Vascular management team (vascular surgeon, interventional radiologist, or cardiologist) for diagnostic evaluation and treatment, if indicated  Vascular surgeon for surgical bypass or related procedures, if indicated
*At Risk includes patients who smoke, have vascular insufficiency, neuropathy, retinopathy, nephropathy, history of ulcers/amputations, structural deformities, infections, skin/nail abnormalities, anticoagulation therapy, or who cannot see/feel/or reach feet.			

System/Condition	Status/Circumstance	Educator Referral	Specialist Consultation/Referral
<b>RENAL STATUS</b>	Rapid rise in creatinine level (e.g., 0.8-1.4 mg/dl in 12 months) Creatinine clearance* < 60 ml/min Uncertain etiology of nephropathy Problems with management of ACE inhibitors Anemia due to renal disease Difficulties in management of hyperkalemia Difficulties in management of hyperphosphatemia Persistent proteinuria (≥ 300 mg/24 hrs) Albuminuria that progressively increases over a six month period Presence of unexplained hematuria	Diabetes educator for evaluation, glucose management training, physical activity guidance, and management of diabetic kidney disease  Registered dietitian for medical nutrition therapy	Nephrologist for consultation       Consider referral to nephrologist
*Cockcroft-Gault Equation: Creatinine clearance = $\frac{(140 - \text{age}) \times \text{weight in kg}}{72 \times \text{serum creatinine}}$ x (0.85 if female)			
<b>EYE CARE MANAGEMENT</b>	All patients		Annual referral for comprehensive dilated eye exam or annual validated retinal imaging* to determine level of retinopathy ♦ Follow-up and management based on level of retinopathy as determined above, but not less than annually*
	New loss of vision; blindness, eye pain, red eye/ocular inflammation		Immediate evaluation with ophthalmologist specializing or trained in managing eye diseases in patients with diabetes
	Women with known diabetes who are planning pregnancy or who are pregnant		Comprehensive Dilated Eye Exam: • Prior to planned pregnancy • Early in first trimester, with follow-up as determined by level of eye disease • Six to eight weeks postpartum
	Patients with established visual loss following appropriate evaluation	Diabetes self-management education program specializing in vision impaired and adaptive devices	Vision rehabilitation specialist to maximize vision
* Definitive diagnosis of level of diabetic retinopathy, diabetic macular edema, and other diabetes-related ocular disorder is made by comprehensive dilated eye examination			

System/Condition	Status/Circumstance	Educator Referral	Specialist Consultation/Referral
<b>NEUROPATHY MANAGEMENT</b>	Acute weakness with or without pain including suggestions of diabetic amyotrophy		Immediate evaluation with neurologist
	Rapidly progressing neuropathy		Evaluation with neurologist
	Severe painful neuropathy non-responsive to first-line therapy		Evaluation with neurologist
	Severe autonomic neuropathy including: <ul style="list-style-type: none"> <li>· Cardiovascular, including orthostatic hypotension</li> <li>· Gastrointestinal, including gastroparesis and other bowel motility disorders</li> <li>· Urogenital, including: <ul style="list-style-type: none"> <li>· bladder motility disturbance</li> <li>· erectile dysfunction</li> </ul> </li> <li>· Sudomotor (gustatory hyperhydrosis)</li> </ul>	When gastroparesis affects glycemic control, refer to diabetes educator for diabetes self-management education ♦ Registered dietitian for medical nutrition therapy	Evaluation with neurologist or gastroenterologist  Evaluation with urologist  See Management of Sexual Dysfunction Section
	Sub acute/chronic weakness indicative of neuropathy		Evaluation with neurologist
<b>PREGNANCY</b>	Women with known diabetes followed preconception to 6 weeks postpartum	Stress control of glucose and use of folic acid preconception and during pregnancy, using diabetes educator, as appropriate Registered dietitian for individualized medical nutrition therapy	High risk OB/GYN and endocrinologist/diabetes specialist, preferably prior to conception for risk assessment and ongoing management ♦ See Eye Care Management section
	Women with gestational diabetes	Stress control of glucose and use of folic acid during pregnancy, using diabetes educator as appropriate  Registered dietitian for individualized medical nutrition therapy	OB/GYN

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<b>PSYCHOSOCIAL MANAGEMENT</b>	Newly diagnosed diabetes	Diabetes educator for diabetes self-management education	
	Need to develop skills for coping with diabetes: · Specific behavior/psychological concerns associated with newly diagnosed diabetes · Depression/anxiety/general stressors · Adherence concerns · Diabetes burnout · Complications	Diabetes educator for diabetes self-management education	Mental Health Specialist, such as a social worker, psychologist/psychiatrist, psychiatric nurse practitioner
	Eating disorders · Binge-eating disorder · Intentional insulin omission or · Unexplained DKA or repeatedly elevated A1Cs in which psychological cause is suspected	Registered dietitian for appropriate medical nutritional therapy	Mental Health Specialist with specific expertise in eating disorders and in the context of a multidisciplinary team approach
	Hypoglycemia unawareness or prevention of recurrent severe hypoglycemia	For patients with recurrent hypoglycemia, refer to blood glucose awareness training program, where available; otherwise, consider referral to diabetes educator	
<b>MANAGEMENT OF SEXUAL DYSFUNCTION</b>	Presence of structural/functional abnormality		Urologist if structural/functional abnormality is found
	Presence of hormonal abnormality or no specific etiology identified		Males: Erectile dysfunction specialist (endocrinologist or urologist), or physician who specializes in men's sexual health, if specific diagnosis in question or failure of trial with oral medication or concern with using oral therapy with specific patient Females: OB/GYN or physician who specializes in the sexual health for women for dyspareunia, arousal issues
	Psychological issues suspected		Mental health specialist, ideally with experience in sexual dysfunction

## List of Abbreviations

### Page 1

CDE: Certified Diabetes Educator  
A1C: glycohemoglobin (hemoglobin A1C)

### Page 2

CAD: coronary artery disease  
CHF: congestive heart failure  
PVD: peripheral vascular disease  
ECG: electrocardiogram  
SVT: supraventricular tachycardia  
BMI: body mass index  
LDL-C: low density lipoprotein-cholesterol  
HDL-C: high density lipoprotein-cholesterol  
TG: triglycerides

### Page 4

ACE inhibitors: angiotensin-converting enzyme inhibitors

### Page 5

OB/GYN: obstetrician/gynecologist

### Page 6

DKA: diabetic ketoacidosis

### Page 8

BIDHC: Beth Israel Deaconess Health Care  
BIDMC: Beth Israel Deaconess Medical Center  
BIDPO: Beth Israel Deaconess Provider Organization

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