

DIABETES CHRONIC CARE MANAGEMENT PLAN

DIABETES OVERVIEW

Diabetes is a chronic metabolic illness characterized by hyperglycemia resulting from defects in insulin secretion, action, or both.

There are four clinical classes of diabetes:

1. Type 1 or insulin-dependent diabetes (IDDM)
 - Results from pancreatic B cell destruction usually resulting in an absolute deficiency of insulin
 - Presents with acute symptoms of diabetes and markedly elevated glucose
 - Peak onset 10-14 years of age
2. Type 2 or non-insulin dependent diabetes (NIDDM)
 - Results from insulin resistance of tissues and a progressive deficiency of insulin production
 - Approximately 1/3 of cases undiagnosed
 - Individuals at high risk should be screened
 - Consider screening if Body Mass Index (BMI) \geq 85th percentile AND any of the following risk factors: lack of physical activity, strong family history of diabetes, higher risk ethnic population (i.e., African American, Latino, Native American, Asian American, Pacific Islander), history of gestational diabetes, hypertension, dyslipidemia, polycystic ovary syndrome (PCOS), acanthosis nigricans
3. Gestational diabetes
 - Diagnosed during pregnancy with risk factor assessment and oral glucose tolerance test
 - Should be screened for diabetes 6-12 weeks postpartum
4. "Other" category
 - Disease due to specific causes (i.e., destruction of pancreas in cystic fibrosis or drug-induced)
 - High suspicion as indicated by other health conditions or medications

Symptoms warranting suspicion for diabetes:

- Fatigue, polyuria, polydipsia, and nocturia
- Polyphagia and weight loss (variable early in disease)
- Malaise and lethargy
- Nausea, vomiting, abdominal pain, dehydration, somnolence, and eventual coma from frank diabetic ketoacidosis or nonketotic hyperosmolar syndrome
- Diabetic ketoacidosis (DKA) and nonketotic hyperosmolar syndrome can be life threatening and must be handled immediately and preferably by an experienced team of medical professionals in hospital

Screening and diagnostic criteria for diabetes mellitus:

- Symptoms (polydipsia, polyuria, weight loss) plus random plasma glucose \geq 200 mg/dl
- Fasting (8 hr) plasma glucose \geq 126 mg/dl
- Two hour plasma glucose \geq 200 mg/dl after 75 g glucose (OGTT)

Note: glycosylated hemoglobin is not recommended as a screening test

Diagnostic criteria for impaired glucose tolerance:

- Fasting (8 hr) plasma glucose 100-125 mg/dl
- Two hour plasma glucose 140-199 mg/dl after 75 g glucose (OGTT)

Diabetes management goals:

- Collaborative and integrated team approach (including patient, wellness staff, Job Corps food services, recreational staff, nutritionist)
- Achieve glycemic control (as measured by self-monitoring and glycosylated hemoglobin levels, achieved through diet, exercise, medications, psychosocial well-being)
- Reduce risk of short-term complications (hypoglycemia, infections, DKA, nonketotic hyperosmolar syndrome)
- Reduce risk of long-term complications (nephropathy, retinopathy, cardiovascular disease, neuropathy)

- See Diabetes Chronic Care Management Plan Flowsheet for specific screening/monitoring/prevention guidelines

Routine testing recommendations for persons with diabetes:

- Self-monitoring (frequency and timing dictated by diabetes type, treatment goals, setting)
- Hemoglobin A1c (general goal <7, target of 6 if no complications of hypoglycemia; check every 6 months if at goal, every 3 months if above goal)
- Fasting (8 hr) lipid profile
- Annual influenza vaccine
- Annual urine microalbumin
- Pneumococcal vaccine (single time)

Treatment goals:

- Hemoglobin A1c < 7%
- Preprandial blood glucose 90-130 mg/dl; postprandial blood glucose < 180 mg/dl
- Blood pressure < 130/80
- LDL cholesterol < 100 mg/dl; HDL cholesterol > 40 mg/dl
- Triglycerides < 150 mg/dl

Metformin in type 2 diabetes:

- Decreased insulin resistance/Decreased insulin requirement
- Mild weight loss
- Not associated with hypoglycemia
- Start low—500 mg with one meal, increase slowly to maximum 1000 mg bid or 850 mg tid with meals
- GI side effects common in first 2 weeks

Reference:

American Diabetes Association 2006 Clinical Practice Recommendations, *Diabetes Care*, 29 (Supplement 1). Available at: http://care.diabetesjournals.org/content/vol29/suppl_1/.

Applicant/Student Name: _____

DIABETES CHRONIC CARE MANAGEMENT PLAN

OUTREACH AND ADMISSIONS PERIOD

Please provide us with the following information.

1. Date of diagnosis: _____ Type 1: _____ Type 2: _____
2. Age of onset: _____
3. List current medications and/or treatment including dosage and frequency prescribed.

4. Has applicant been compliant with medications and treatment? If no, please explain.

5. List past hospitalizations including dates, reason for admission, and discharge summaries.

6. What is current status and prognosis?

7. Will the applicant need to continue follow-up under your care? If yes, please list the date and/or frequency of follow-up appointments.

8. In your opinion, will the applicant be able to self-manage his medications unsupervised and participate in a vocational training program? If no, please explain.

9. In your opinion, will the applicant be appropriate to reside in a dormitory style residence with minimal supervision? If no, please explain.

10. Are there any restrictions or limitations related to this specific illness?

11. List any allergies for this applicant.

12. What is the applicant's smoking history?

Applicant/Student Name: _____

13. Does the applicant use hormonal contraception? (females only)

14. Does the applicant have health insurance documentation?

Please sign below and return the form in the attached addressed envelope.

Print Name and Title

Signature

Phone

Date

For any questions, please call _____
Admission Counselor/Health and Wellness Staff

Phone

Name: _____

Student ID#: _____

DOB: _____

DIABETES CHRONIC CARE MANAGEMENT PLAN

CAREER PREPARATION PERIOD, CAREER DEVELOPMENT PERIOD, CAREER TRANSITION PERIOD

Goals:

1. Enhance employability by optimizing control of diabetes.
2. Educate the student regarding recognition of symptoms and self-management.
3. Reduce the likelihood of long-term complications.
4. Optimize therapy with diet, exercise, insulin, and/or oral hypoglycemic drugs.
5. Implement regularly scheduled follow-up visits.

CAREER PREPARATION PERIOD		
YES	NO	
		Establish a Diabetes Mellitus Action Plan for student
		Offer the student a Medical Identification bracelet/necklace/anklet
		Weekly to monthly visits to establish optimal control
		Visits every 2-3 months once stable
		Assess vocational training match
		Mandatory TUPP/smoking cessation enrollment
		Annual influenza vaccination in October or November
		Emergency response plan
		Educate student about potential complications arising from diabetes
		<ul style="list-style-type: none"> • Nephropathy • Retinopathy • Neuropathy • Gastroparesis • Cardiovascular disease
		Educate student about lifestyle choices
		<ul style="list-style-type: none"> • Weight management • Encourage whole fruits, vegetables, low fat milk, increased fiber • Avoid soda and fruit juices • Encourage aerobic physical activity (exercise 30 minutes per day, 5 days per week) • Avoid sedentary lifestyle (limit TV) • Avoid smoking • Limit alcohol use
		Educate student on diabetes management as it relates to employment
CAREER DEVELOPMENT PERIOD		
		Monitor adherence issues
		<ul style="list-style-type: none"> • Medication regimen • Medication refills • Routine medical care • Urgent medical care • Environmental control • Self-monitoring • Physiotherapy • Rest • Exercise • Nutrition (consider referral to nutritionist if new diagnosis or difficult management) • Tobacco, alcohol, drug use

Name: _____

Student ID#: _____

DOB: _____

CAREER TRANSITION PERIOD		
YES	NO	
		Conduct a Wellness Center exit interview approximately 2 weeks before program completion.
		Identify potential sources of primary health care, and specialty care if needed, in the work community.
		Obtain signed HIPAA authorizations for the transfer of student health records to identified health care providers.
		Assist the student in enrolling or maintaining enrollment in a public or private health insurance program.
		Provide the student with a copy of the SF-93, SF-88, immunization records, and chronic care management plan, including flowsheets.
		Provide the student with an adequate amount of medication(s) and supplies at departure.

See Treatment Guideline for Diabetes for additional information and guidance.

See Diabetes Flowsheet for tracking patient visits.

DIABETES CHRONIC CARE MANAGEMENT PLAN FLOWSHEET

Student Name:						
Sex: M or F		Date of Birth:		Date of Entry:		
Co-Morbid Conditions:						
HEALTH MAINTENANCE	RECOMMENDED FREQUENCY	DATE				
History and physical	Comprehensive once annually. Focused at other visits					
Weight (BMI Goal < 27)	Every visit					
Blood Pressure (Goal ≤130/85)	Every visit					
Dilated ophthalmologic examination referral	Annually					
Foot Examination <ul style="list-style-type: none"> • Sensation, pedal pulses, deformities, ulcers, color • Comprehensive vascular, neurological, and musculoskeletal 	Every Visit					
	Annually					
LABORATORY TESTS						
HbA1c <ul style="list-style-type: none"> • Depends on age, physical condition of patient • Evaluate prescription plan when > 8% 	Twice annually (more often when not meeting treatment goals)					
Urinalysis	Annually					
Microalbumin (if urine negative for protein) <ul style="list-style-type: none"> • Urine albumin/creatinine ratio in a random spot-check • 24-hour collection with creatinine clearance 	Annually (if positive, repeat test within 3 months)					
Blood lipids <ul style="list-style-type: none"> • Cholesterol <200mg/dl • Triglycerides <200 mg/dl • LDL<130 mg/dl (<100 with CAD) • HDL>35 mg/dl) 	Annually					
DIABETES MANAGEMENT PLAN						
Self blood glucose monitoring results	Every visit, with comprehensive review annually					
Nutrition						
Exercise/physical activity						
Adherence						
PREVENTIVE CARE/LIFESTYLE						
Pneumococcal vaccine(s)	Complete series					
Influenza vaccine	Annually					
Smoking cessation	Every Visit					
Preconception counseling	Every Visit					
REFERRALS						
Diabetes Education, Endocrinologist, Diabetologist, other specialists	As indicated					