



***ABIM Diabetes PIM™ Practice Improvement Module
Measures Catalogue***

**Diabetes Measures Catalogue
September 2010**

TABLE OF CONTENTS

Introduction	3
Outcomes of Care	5
Processes of Care.....	10
Patient Experience: Outcomes of Care	19
Patient Experience: Processes of Care	22

Introduction:

This catalogue provides information related to the American Board of Internal Medicine's Diabetes Practice Improvement Module®. It is written in language that addresses the physician who might choose to complete this module, and it details the specifics of the module. Included is information regarding:

- **Purpose and structuring of the module**
- **Patient inclusion criteria**
- Detailed description of the measures

This PIM examines the care you provide to your patients by addressing key processes and outcomes of diabetes care based on recommendations of the American Diabetes Association and the American Association of Clinical Endocrinologists.

The PIM is divided into 3 parts, with multiple sections in each part.

Part 1 -Performance Data

Provide baseline data about your practice's current performance by...

- Surveying your patients
- Reviewing your charts
- Assessing your practice systems

The 31 patient survey measures and 36 chart review measures are summarized below. **ABIM recommends a minimum of 25** patient surveys. If you have extreme difficulty in meeting this recommendation in a reasonable time frame, you may satisfy this requirement with only **10** patient surveys. **ABIM recommends a minimum of 25** chart reviews. If it is not feasible for your practice to see 25 patients (who meet the sample criteria) in a reasonable time frame, you may satisfy this requirement with only **10** chart reviews.

The practice systems assessment is comprised of multiple pages of questions covering various aspects of practice structure and protocols.

Patients can be **included** in this module if **all** of the following are true:

1. Patients are between the ages of 15 and 90 (inclusive);
2. Management decisions regarding their diabetes are made primarily by providers in the practice;
3. They have been patients in the practice for at least one year; *AND*
4. They have been seen by the practice within the past 12 months.

Patients should be **excluded** from this module if the following is true:

1. They are unable to complete the patient survey, even with assistance
OR
2. They have a terminal illness, or treatment of their diabetes is not clinically relevant.

Part 2 - Quality Improvement (QI) Plan

Develop a plan for improving one aspect of your practice after reviewing the analysis of your current performance data. The analysis will include many aspects of care you provide to your patients. Ultimately, you will target only one of these to use in this quality improvement (QI) cycle.

Part 3 - Remeasurement

Remeasure your performance data after you have implemented your QI plan to see if you achieved your goal. Then, you will reflect on the process of developing and implementing a QI plan.

You may claim CME credit for completing this activity. The University of Pennsylvania School of Medicine designates this educational activity for a maximum of 20 *AMA PRA Category 1 Credit(s)*[™].

DIABETES - OUTCOMES OF CARE

Clinical Outcomes				
Measure Title	Description	Numerator	Denominator	Rationale
Comp.Measure5: Most recent blood pressure < 130/80	Patients in the sample whose most recent blood pressure was less than 130/80 mm Hg.	Number of patients in the sample whose most recent blood pressure was less than 130/80 mm Hg. Blood pressure measurement must have been done within the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Randomized controlled trials conclusively demonstrate the benefit of lowering blood pressure to <140 systolic and <80 diastolic in patients with diabetes. Epidemiologic studies show that the risk of CVD begins at blood pressures of >115/75. Experts have therefore agreed that <130/80 is a reasonable target for blood pressure control in patients with diabetes.
Comp.Measure2: Blood pressure poor control	Patients in the sample whose most recent blood pressure was greater than or equal to 140/90 mm Hg. In this measure, lower percentages are better.	Number of patients in the sample whose most recent systolic blood pressure was greater than or equal to 140 mm Hg or diastolic blood pressure was greater than or equal to 90 mm Hg during the 12-month, OR who did NOT have blood pressure measurement done or documented during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	
Most recent LDL cholesterol < 70 in patients with CVD, tested within 12 months of visit	Patients in the sample who have CVD and whose most recent LDL cholesterol level was < 70 mg/dL.	Number of patients in the sample who have CVD and whose most recent LDL cholesterol level was <70 mg/dL. LDL measurement must have been done within the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample who have CVD.	Multiple clinical trials have shown the benefits of lipid-lowering therapy, especially with statins, in reducing the risk of myocardial infarction and CHD death in patients with diabetes. More recent clinical trials have shown that very aggressive therapy in patients at very high risk for future CHD events can lead to a

Clinical Outcomes				
Measure Title	Description	Numerator	Denominator	Rationale
				significant reduction in these events. Therefore, a goal for LDL cholesterol of < 70 may be appropriate for diabetic patients who already have established cardiovascular disease.
Comp.Measure6: Most recent LDL cholesterol < 100 mg/dL; tested within 12 months of visit	Patients in the sample whose most recent LDL cholesterol level was < 100 mg/dl.	Number of patients in the sample whose most recent LDL cholesterol level was < 100. LDL measurement must have been done within the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Multiple clinical trials have shown the benefits of lipid-lowering therapy, especially with statins, in reducing the risk of myocardial infarction and CHD death in patients with diabetes. Most experts agree that the primary goal for patients with diabetes and dyslipidemia should be to achieve an LDL cholesterol of < 100 mg/dL; more aggressive goals may be appropriate in some patients, such as those who already have established cardiovascular disease.
Comp.Measure3: LDL poor control	Patients in the sample whose most recent LDL cholesterol level was greater than or equal to 130 mg/dl. In this measure, lower percentages are better.	Number of patients in the sample whose most recent LDL cholesterol level was greater than or equal to 130 OR who did not have LDL measurement done or documented during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	
Most recent HDL cholesterol >= 40 mg/dL; tested within 12 months of visit	Patients in the sample whose most recent HDL cholesterol level was >= 40 mg/dL.	Number of patients in the sample whose most recent HDL cholesterol level was > 40 mg/dL. HDL measurement must have been done within the specified abstraction period (within 12 months of the visit	Number of patients in the sample.	Strong epidemiological evidence links low levels of serum HDL cholesterol to increased CHD morbidity and mortality. Epidemiological studies consistently show low HDL cholesterol to be an independent

Clinical Outcomes				
Measure Title	Description	Numerator	Denominator	Rationale
		date, with a three month grace period).		risk factor for CHD. A low HDL level correlates with the presence of other atherogenic factors. Prospective studies have shown that a high HDL cholesterol is associated with reduced risk for CHD.
Most recent triglycerides < 150 mg/dL; tested within 12 months of visit	Patients in the sample whose most recent triglyceride level was <150 mg/dL.	Number of patients in the sample whose most recent triglyceride level was <150 mg/dL. Triglyceride measurement must have been done within the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Many prospective epidemiological studies have reported a positive relationship between serum triglyceride levels and incidence of CHD. Elevated triglycerides are widely recognized as a marker for increased risk for CHD.
Most recent hemoglobin A1C < 7.0%; tested within 12 months of visit	Patients in the sample whose most recent A1C level was less than 7.0%.	Number of patients in the sample whose most recent HbA1c level was less than 7.0%. HbA1c measurement must have been done during the specified abstraction period (within 12 months of the index visit, with a three month grace period). To be included in the sample patients need to have diabetes mellitus, and be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to have diabetes mellitus, and be between the ages of 15 and 90.	Lowering hemoglobin A1C to < 7.0% has been associated with fewer microvascular and neuropathic complications of diabetes, and long-term follow up in some large cohort studies shows that control to this level soon after the diagnosis of diabetes is made lowers the risk of macrovascular disease. Recent evidence suggests that less stringent goals may be appropriate for frail patients, those with a history of severe hypoglycemia, those who already have advanced macrovascular disease, and those who will not benefit from aggressive glucose control because of advanced microvascular disease. We therefore use a goal of < 8.0% for patients aged 65 and over, those with coronary heart disease,

Clinical Outcomes				
Measure Title	Description	Numerator	Denominator	Rationale
				cerebrovascular disease, peripheral artery disease, end-stage renal disease, or significant loss of vision or blindness.
Most recent hemoglobin A1C < 8.0%; tested within 12 months of visit	Patients in the sample whose most recent A1C level was less than 8.0%.	Number of patients in the sample whose most recent HbA1c level was less than 8.0%. HbA1c measurement must have been done during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Lowering hemoglobin A1C to < 7.0% has been associated with fewer microvascular and neuropathic complications of diabetes, and long-term follow up in some large cohort studies shows that control to this level soon after the diagnosis of diabetes is made lowers the risk of macrovascular disease. Recent evidence suggests that less stringent goals may be appropriate for frail patients, those with a history of severe hypoglycemia, those who already have advanced macrovascular disease, and those who will not benefit from aggressive glucose control because of advanced microvascular disease. We therefore use a goal of < 8.0% for patients aged 65 and over, those with coronary heart disease, cerebrovascular disease, peripheral artery disease, end-stage renal disease, or significant loss of vision or blindness.
Comp.Measure4: Most recent hemoglobin A1C at goal, tested within 12 months of visit	Patients in the sample whose most recent A1C was at goal. The general treatment goal for patients with diabetes is an A1C of less than 7.0%. For some patients, however, the treatment goal is less than 8.0%, because of the risk of	Number of patients in the sample whose most recent A1C was at goal. A1C goal was <8.0% for patient who are age 65 and over, OR have clinical cardiovascular disease (including coronary heart disease, cerebrovascular	Number of patients in the sample.	Lowering hemoglobin A1C to < 7.0% has been associated with fewer microvascular and neuropathic complications of diabetes, and long-term follow up in some large cohort studies shows that control to this level soon after the diagnosis of

Clinical Outcomes				
Measure Title	Description	Numerator	Denominator	Rationale
	hypoglycemia, and relatively less benefit in long-term reduction of macrovascular or microvascular complications. This includes patients age 65 and over and those with pre-existing cardiovascular disease, peripheral vascular disease, cerebrovascular disease, end-stage renal disease, or significant loss of vision or blindness.	disease, and peripheral artery disease, OR have end-stage renal disease, OR have significant loss of vision or blindness. A1C goal was <7.0% for other patients. A1C measurement must have been done during the specified abstraction period (within 12 months of the visit date, with a three month grace period).		diabetes is made lowers the risk of macrovascular disease. Recent evidence suggests that less stringent goals may be appropriate for frail patients, those with a history of severe hypoglycemia, those who already have advanced macrovascular disease, and those who will not benefit from aggressive glucose control because of advanced microvascular disease. We therefore use a goal of < 8.0% for patients aged 65 and over, those with coronary heart disease, cerebrovascular disease, peripheral artery disease, end-stage renal disease, or significant loss of vision or blindness.
Comp.Measure1: Hemoglobin A1C > 9.0%(poor glucose control).	Patients in the sample whose most recent A1C level was greater than 9.0%, reflecting poor glucose control. In this measure, lower percentages are better.	Number of patients in the sample whose most recent A1C level was greater than 9.0%, OR who did not have A1C measurement done or documented during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Although aggressive control of glucose to near normal levels may not be appropriate for all patients, including those who are frail, have a history of severe hypoglycemia, or who have longstanding and severe cardiovascular disease, most experts agree that all patients can benefit from glucose control that lowers A1C to < 9%, a level above which patients are at high risk for complications related to hyperglycemia.

DIABETES - PROCESSES OF CARE

Patient Evaluation				
Measure Title	Description	Numerator	Denominator	Rationale
History	Percentage of items in the medical history section of the chart for which complete responses were given; an item is considered incomplete if the response recorded is "Not Documented" or "Unsure", as this indicates that the physician does not have the necessary information available.	Number of questions in the medical history section of the chart review for which "Yes" or "No" responses were given, indicating that the necessary information was available to the physician AND the number of responses 1-5 for the "Diabetes Classification" item. Medical history questions asked about the presence or absence peripheral neuropathy, autonomic neuropathy, clinical cardiovascular disease, hypertension, lipid disorder, overweight or obesity, physical inactivity, and current cigarette smoking status.	Number of questions in the medical history section of the chart review.	A complete medical evaluation should be performed to classify the diabetes, detect the presence of diabetes complications, and assess risk factors in patients with established diabetes, to assist in formulating a management plan, and provide a basis for continuing care.
Height	Patients in the sample with height documented	Number of patients in the sample who have height documented	Number of patients in the sample.	
Weight	Patients in the sample with weight documented	Number of patients in the sample who have weight documented	Number of patients in the sample.	
Blood Pressure	Patients in the sample whose blood pressure (systolic/diastolic) was measured.	Number of patients in the sample whose blood pressure (systolic/diastolic) was measured during the specified abstraction period (within 12 months of the visit date, with a three month grace period), with date and value of the measurement documented.	Number of patients in the sample	
Comp.Measure9: Foot exam	Patients in the sample who had a complete foot exam	Number of patients in the sample who had a complete	Number of patients in the sample,	Manifestations of microvascular disease may be demonstrable to

Patient Evaluation				
Measure Title	Description	Numerator	Denominator	Rationale
	performed during the 12 month period prior to the visit date, with a three-month grace period.	foot examination, including visual inspection, sensory testing, and assessment of pulses. The examination must have been completed during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	excluding those who have had amputation of both legs or feet.	the clinician before the patient experiences any symptoms. Therefore, a program of periodic preventive monitoring is necessary. At least annually, all adults with diabetes should undergo a comprehensive foot examination to identify high-risk conditions. Vascular assessment should include inspection and assessment of pedal pulses.
Comp.Measure7: Eye exam	Patients in the sample who had a dilated eye examination (or evaluation of a retinal photograph) by an eye specialist to screen for diabetic retinopathy, done within 12 months of the visit date, with a three-month grace period. If no examination was done during this period, an evaluation done during the prior 12 months is acceptable, provided that there was no evidence of retinopathy.	Number of patients in the sample who had a dilated eye examination performed by an eye specialist (or evaluation of a retinal photograph). The examination must have been performed during the specified abstraction period (within 12 months of the visit date, with a three month grace period). If no examination was done during this period, an evaluation done during the prior 12 months is acceptable, provided that there was no evidence of retinopathy.	Number of patients in the sample.	Comprehensive eye examinations for type 1 and type 2 diabetic patients should be repeated annually by an ophthalmologist or optometrist who is knowledgeable and experienced in diagnosing the presence of diabetic retinopathy and is aware of its management.

Diagnostic Testing				
Measure Title	Description	Numerator	Denominator	Rationale
Hemoglobin A1C tested within 12 months of visit	Patients in the sample who had testing for A1C done during the 12-month period prior to the visit date, with a three-month grace period.	Number of patients in the sample who had A1C testing done during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	

Diagnostic Testing				
Measure Title	Description	Numerator	Denominator	Rationale
Hemoglobin A1C tested within 6 months of visit	Patients in the sample who had testing for A1C done during the 6-month period prior to the visit date, with a one month grace period.	Number of patients in the sample who had A1C testing done during the specified abstraction period (within 6 months of the visit date, with a one month grace period).	Number of patients in the sample.	Hemoglobin A1C is thought to reflect average glycemia over several months, and has strong predictive value for diabetes complications. Patients with stable glycemia well within target may do well with testing only twice per year, while unstable or highly intensively managed patients (e.g., pregnant type 1 women) may need testing more frequently.
LDL cholesterol tested within 12 months of visit	Patients in the sample who had LDL cholesterol testing done during the 12-month period prior to the visit date, with a three-month grace period.	Number of patients in the sample who had LDL cholesterol testing done during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Patients with type 2 diabetes have an increased prevalence of lipid abnormalities, contributing to their high risk of CVD. CVD is the major cause of morbidity and mortality for individuals with diabetes. In all patients with diabetes, cardiovascular risk factors should be assessed at least annually. These risk factors include dyslipidemia, hypertension, smoking, a positive family history of premature coronary disease, and the presence of micro or macroalbuminuria.
HDL cholesterol tested within 12 months of visit	Patients in the sample who had HDL cholesterol testing done during the 12-month period prior to the visit date, with a three-month grace period.	Number of patients in the sample who had HDL cholesterol testing done during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Patients with type 2 diabetes have an increased prevalence of lipid abnormalities, contributing to their high risk of CVD. CVD is the major cause of morbidity and mortality for individuals with diabetes. In all patients with diabetes, cardiovascular risk factors should be assessed at least annually. These risk factors include dyslipidemia, hypertension, smoking, a positive family history of premature coronary disease,

Diagnostic Testing				
Measure Title	Description	Numerator	Denominator	Rationale
				and the presence of micro or macroalbuminuria.
Triglycerides tested within 12 months of visit	Patients in the sample who had triglyceride testing done during the 12-month period prior to the visit date, with a three-month grace period.	Number of patients in the sample who had triglyceride testing done during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	Patients with type 2 diabetes have an increased prevalence of lipid abnormalities, contributing to their high risk of CVD. CVD is the major cause of morbidity and mortality for individuals with diabetes. In all patients with diabetes, cardiovascular risk factors should be assessed at least annually. These risk factors include dyslipidemia, hypertension, smoking, a positive family history of premature coronary disease, and the presence of micro or macroalbuminuria.
Serum creatinine tested within 12 months of visit	Patients in the sample, excluding those with end-stage renal disease (ESRD), who had serum creatinine tested during the 12-month period prior to the visit date, with a three-month grace period.	Number of patients in the sample, excluding those with end-stage renal disease (ESRD), who had serum creatinine tested during the specified abstraction period (within 12 months of the visit date, with a three month grace period). To be included in the numerator, the date and value of test must be documented	Number of patients in the sample, excluding those with a diagnosis of end-stage renal disease (ESRD).	Diabetic nephropathy occurs in 20–40% of patients with diabetes and is the single leading cause of end-stage renal disease (ESRD). Serum creatinine should be used to estimate GFR and to stage the level of CKD, if present.
Comp.Measure8: Test for urine protein	Patients in the sample who were screened for nephropathy by an acceptable method, or were receiving medical therapy for nephropathy (ACE inhibitor or ARB). Acceptable screening tests include a positive result of urine dipstick testing for protein at any time; a normal result for urine microalbuminuria testing	Number of patients in the sample, excluding those with end-stage renal disease (ESRD), who were either screened for nephropathy by an acceptable method, or who are currently receiving an ACE inhibitor or an ARB. Acceptable screening tests include a positive result of urine	Number of patients in the sample, excluding those with a diagnosis of end-stage renal disease (ESRD).	Diabetic nephropathy occurs in 20–40% of patients with diabetes and is the single leading cause of end-stage renal disease (ESRD). Persistent albuminuria in the range of 30–299 mg/24 h (microalbuminuria) has been shown to be the earliest stage of diabetic nephropathy in type 1 diabetes and a marker for

Diagnostic Testing				
Measure Title	Description	Numerator	Denominator	Rationale
	during the 12-month period prior to the visit date, with a three-month grace period; or a prior diagnosis of micro- or macroalbuminuria, regardless of the date of testing.	dipstick test for protein at any time, a normal result for urine microalbuminuria testing during the specified abstraction period (within 12 months of the visit date, with a three month grace period); or a prior diagnosis of micro- or macroalbuminuria, regardless of the date of testing.		development of nephropathy in type 2 diabetes. Microalbuminuria is also a well-established marker of increased CVD risk. Screening for microalbuminuria can be performed by measurement of the albumin-to-creatinine ratio in a random spot collection, or in a 24 hour urine collection specimen.

Treatment				
Measure Title	Description	Numerator	Denominator	Rationale
Individualized medical nutrition therapy	Patients in the sample with an Individualized nutrition plan	Number of patients in the sample with an Individualized nutrition plan documented in the chart.	Number of patients in the sample.	Medical nutrition therapy (MNT) is important in preventing diabetes, managing existing diabetes, and preventing, or at least slowing, the rate of development of diabetes complications by promoting healthy food choices and physical activity. MNT is also an integral component of diabetes self-management education. Clinical trials/outcome studies of MNT have reported decreases in A1C at 3–6 months ranging from 0.25 to 2.9% with higher reductions seen in type 2 diabetes of shorter duration.
Individualized physical activity plan	Patients in the sample with an Individualized physical activity plan	Number of patients in the sample with an Individualized physical activity plan documented in the chart.	Number of patients in the sample.	Regular exercise has been shown to improve blood glucose control, reduce cardiovascular risk factors, contribute to weight loss, and improve well being. Structured exercise interventions of at least 8 weeks' duration have been shown

Treatment				
Measure Title	Description	Numerator	Denominator	Rationale
				to lower A1C by an average of 0.66% in people with type 2 diabetes, even with no significant change in BMI. Higher levels of exercise intensity are associated with greater improvements in A1C and in fitness. The U.S. Surgeon General's report recommends ~150 min of exercise per week for people with diabetes. Providers should assess patients for conditions that might contraindicate certain types of exercise. The patient's age and previous physical activity level should be considered.
ACE inhibitor or ARB	Patients in the sample potentially eligible for treatment with an ACE inhibitor or ARB who are currently receiving this therapy. Patients were considered potentially eligible for treatment with an ACE inhibitor or ARB if they had micro- or macroalbuminuria.	Number of patients in the sample who are potentially eligible for treatment with an ACE inhibitor or ARB, and who are currently receiving this therapy. Patients were considered potentially eligible for treatment with an ACE inhibitor or ARB if the chart documented that they had a diagnosis of micro- or macroalbuminuria.	Number of patients in the sample who are potentially eligible for treatment with an ACE inhibitor or ARB. Patients were considered potentially eligible for treatment with an ACE inhibitor or ARB if the chart documented that they had a diagnosis of micro- or macroalbuminuria.	In clinical trials, antihypertensive therapy has been associated with 35% to 40% mean reductions in stroke incidence; 20% to 25% in myocardial infarction; and more than 50% in heart failure. People with diabetes and microalbuminuria have twice the CVD risk of those with normoalbuminuria, and as albuminuria increases and GFR decreases, CVD risk increases progressively. The ACE inhibitor- or ARB-based treatments favorably affect the progression of diabetic nephropathy and reduce albuminuria, and ARBs have been shown to reduce progression to macroalbuminuria.
Statin or other lipid-lowering drug	Patients in the sample potentially eligible for treatment with a statin or other lipid-lowering drug who are currently	Number of the patients in the sample who potentially eligible for treatment with a statin or other lipid-lowering drug, and	Number of the patients in the sample potentially eligible for	Multiple clinical trials demonstrated significant effects of pharmacologic (primarily statin) therapy on CVD outcomes in

Treatment				
Measure Title	Description	Numerator	Denominator	Rationale
	receiving this therapy. Patients were considered potentially eligible for treatment with a statin or other lipid-lowering drug if they were diagnosed as having a lipid disorder, or if their most recent LDL cholesterol was 100 mg/dL or higher.	who are currently receiving this therapy. Patients were considered potentially eligible for treatment with a statin or other lipid-lowering drug if the chart documented that they had a lipid disorder, or if their most recent LDL cholesterol was 100 mg/dL or higher.	treatment with a statin or other lipid-lowering drug. Patients were considered potentially eligible for treatment with a statin or other lipid-lowering drug if the chart documented that they had a lipid disorder, or if their most recent LDL cholesterol was 100 mg/dL or higher.	subjects with CHD and for primary CVD prevention.
Aspirin	Patients in the sample over age 30 who are currently receiving aspirin therapy.	Number of patients in the sample over age 30 who are currently receiving aspirin therapy.	Number of patients in the sample who are over age 30.	One large meta-analysis and several clinical trials demonstrate the efficacy of using aspirin as a preventive measure for cardiovascular events, including stroke and myocardial infarction.
Single oral anti-hyperglycemic agent	Patients in the sample with a single oral anti-hyperglycemic agent as a part of their treatment plan for diabetes	Number of patients in the sample who are currently receiving a single oral anti-hyperglycemic agent as a part of their treatment plan for diabetes.	Number of patients in the sample.	Initiate monotherapy when HbA1c levels are 6%-7%. When glycemic levels are closer to the target levels medications with lesser potential to lower glycemia and/or a slower onset of action should be considered.
Combination oral anti-hyperglycemic agents	Patients in the sample with a combination of oral anti-hyperglycemic agents as a part of their treatment plan for diabetes	Number of patients in the sample who are currently receiving a combination of oral anti-hyperglycemic agents as a part of their treatment plan for diabetes.	Number of patients in the sample.	Initiate combination therapy when HbA1c levels are 7%-8%. More than one medication will be necessary for the majority of patients over time. Selection of the individual agents should be made on the basis of their glucose-lowering effectiveness and other characteristics.

Treatment				
Measure Title	Description	Numerator	Denominator	Rationale
Insulin	Patients in the sample with insulin as a part of their treatment plan for diabetes	Number of patients in the sample who are currently receiving insulin as a part of their treatment plan for diabetes.	Number of patients in the sample.	Insulin is the most effective of diabetes medications in lowering glycemia. Initiate/intensify insulin therapy when HbA1c levels are >10%.
Comp.Measure10: Smoking status and cessation support	Patients in the sample whose current smoking status is documented in the chart, and who, if they were smokers, were documented to have received smoking cessation counseling during the reporting period.	Number of patients in the sample with documentation of smoking status AND for smokers, with documentation of smoking cessation counseling or treatment during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample.	A number of large randomized clinical trials have demonstrated the efficacy and cost-effectiveness of smoking cessation counseling in changing smoking behavior and reducing tobacco use. The routine and thorough assessment of tobacco use is important as a means of preventing smoking or encouraging cessation.
Smoking cessation support	Patients in the sample who are smokers, who received smoking cessation counseling or treatment during the reporting period.	Number of patients in the sample who are smokers, with documentation of smoking cessation counseling or treatment during the specified abstraction period (within 12 months of the visit date, with a three month grace period).	Number of patients in the sample who are smokers.	A number of large randomized clinical trials have demonstrated the efficacy and cost-effectiveness of smoking cessation counseling in changing smoking behavior and reducing tobacco use.

Preventive Care				
Measure Title	Description	Numerator	Denominator	Rationale
Influenza vaccine during most recent flu season	Patients in the sample who were vaccinated for influenza during the most recent flu season	Number of patients in the chart review sample who were vaccinated for influenza during the most recent flu season	Number of patients in the sample.	Influenza is a common, preventable infectious disease associated with high mortality and morbidity in the elderly and in people with chronic diseases. Observational studies of patients with a variety of chronic illnesses, including diabetes, show an increase in hospitalizations for influenza and its complications. In a case-control series, influenza

Preventive Care				
Measure Title	Description	Numerator	Denominator	Rationale
				vaccine was shown to reduce diabetes-related hospital admission by as much as 79% during flu epidemics.
Pneumococcal vaccine	Patients in the sample who received a pneumococcal vaccine	Number of patients in the sample who received a pneumococcal vaccine	Number of patients in the sample.	Pneumonia is a common, preventable infectious disease associated with high mortality and morbidity in the elderly and in people with chronic diseases. People with diabetes may be at increased risk of the bacteremic form of pneumococcal infection and have been reported to have a high risk of nosocomial bacteremia, which has a mortality rate as high as 50%.

PATIENT EXPERIENCE: DIABETES – OUTCOMES OF CARE

Functional Outcomes and Self-Care				
Measure Title	Description	Numerator	Denominator	Rationale
Health interferes with activities little or not at all	Patients in the sample who reported that their health interferes a little bit, or not at all, with their ability to carry out normal work or daily activities	Number of patients in the sample who responded "Not at all" or "A little bit" to the survey question, "In the past 12 months, how much did your health interfere with your normal work or daily activities, including work outside the home and housework?". To be included in the sample patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Functional health outcome is an important measure of effective care. Monitoring the overall changes in functional status of the patient population that you serve helps you track outcomes of your patient population over time.
Patient reported physical activity >= 4 days/week	Patients in the sample who reported that they get a total of at least 30 minutes of exercise or physical activity that raises their heart rate 4 to 7 days per week	Number of patients in the sample who responded "4 to 7" to the survey question, "During a typical week, how many days do you get a total of at least 30 minutes of exercise or physical activity that raises your heart rate?" To be included in the sample patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Regular exercise has been shown to improve blood glucose control, reduce cardiovascular risk factors, contribute to weight loss, and improve well being. Most adults should accumulate at least 30 min of moderate-intensity activity on most days of the week.
Always or usually follows recommended eating plan	Patients in the sample who report that they always or usually follow the recommended eating plan.	Number of patients in the sample who responded "Always" or "Usually" to the survey question, "How often do you follow your recommended eating plan?" To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Achieving nutrition-related goals requires a coordinated team effort that includes the active involvement of the person with diabetes.
Reads nutrition labels most of the time	Patients in the sample who report that most of the time they, or the person that buys their groceries, reads the Nutrition Facts label on food items to decide whether or not	Number of patients in the sample who responded "Most of the time" to the survey question, "How often do you (or whoever buys your groceries) read the Nutrition Facts label	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and	Monitoring carbohydrates is a key strategy in achieving glycemic control. People with diabetes are encouraged to consume a variety of fiber-containing foods. The primary goal with respect to dietary

Functional Outcomes and Self-Care				
Measure Title	Description	Numerator	Denominator	Rationale
	to buy them	on food items to decide whether or not to buy them?" To be included in the sample, patients need to be between the ages of 15 and 90.	90.	fat in individuals with diabetes is to limit saturated fatty acids, trans fatty acids, and cholesterol intakes so as to reduce risk for CVD.
Tests blood sugar at least once daily	Patients in the sample who report that they test their blood sugar at least once a day	Number of patients in the sample who responded "Twice a day or more" OR "About once a day" to the survey question, "If you have a blood sugar meter, during the past two weeks, how often did you test your blood sugar?" To be included in the sample, patients need to be between the ages of 15 and 90	Number of patients in the sample, excluding those who report that they do not have a blood sugar meter. To be included in the sample, patients need to be between the ages of 15 and 90.	Self monitoring of blood glucose (SMBG) is a component of effective therapy. SMBG allows patients to evaluate their individual response to therapy and assess whether glycemic targets are being achieved. Results of SMBG can be useful in preventing hypoglycemia and adjusting medications (particularly prandial insulin doses), medical nutritional therapy, and physical activity.
Examines feet daily	Patients in the sample who report that they examine their feet daily	Number of patients in the sample who responded "Daily or almost every day" to the survey question, "During the past two weeks, how often did you examine your feet?" To be included in the sample, patients need to be between the ages of 15 and 90	Number of patients in the sample, excluding those who responded "Not applicable" to the survey question, "During the past two weeks, how often did you examine your feet?". To be included in the sample, patients need to be between the ages of 15 and 90.	Patients with diabetes should be educated regarding their risk factors and appropriate management. Patients at risk should understand the implications of the loss of protective sensation, the importance of foot monitoring on a daily basis, the proper care of the foot, including nail and skin care, and the selection of appropriate footwear.
Takes aspirin regularly	Percentage of patients in the sample, age 30 and over, who report that they take aspirin daily.	Number of patients in the sample aged 30 to 90 who responded "Yes, and I take it regularly" to the survey question "Has your doctor	Number of patients in the sample age 30 to 90, excluding those who report that they cannot	Aspirin has been recommended for primary and secondary prevention of cardiovascular events in high-risk diabetic and nondiabetic individuals. One large

Functional Outcomes and Self-Care				
Measure Title	Description	Numerator	Denominator	Rationale
		advised you to take an aspirin tablet every day?"	take aspirin.	meta-analysis and several clinical trials demonstrate the efficacy of using aspirin as a preventive measure for cardiovascular events, including stroke and myocardial infarction. Aspirin therapy is not recommended in people under 30 years of age due to lack of evidence of benefit and is contraindicated in patients under the age of 21 years because of the associated risk of Reye's syndrome.

Patient Satisfaction				
Measure Title	Description	Numerator	Denominator	Rationale
Comp.Measure11: Patient satisfaction with overall diabetes care	Patients in the sample who who rated overall diabetes care "excellent" or "very good".	Number of patients in the sample who who rated overall diabetes care "excellent" or "very good"	Number of patients in the sample excluding those who did not rate overall diabetes care	
Patient would recommend practice to others	Patients in the sample who report that they would recommend the practice to family or friends with diabetes	Number of patients in the sample who responded "Yes" to the survey question, "Would you recommend this practice to family or friends with diabetes?" To be included in the sample, patients need to be between the ages of 15 and 90	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Patient satisfaction is both an indicator of quality of care, and a component of quality care.

PATIENT EXPERIENCE: DIABETES – PROCESSES OF CARE

Preventive Care				
Measure Title	Description	Numerator	Denominator	Rationale
Patient received influenza vaccine during most recent flu season	Patients in the sample who reported that they had received an influenza vaccination during the most recent flu season	Number of patients in the patient survey sample who reported being vaccinated for influenza during the most recent flu season. To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Influenza is a common, preventable infectious disease associated with high mortality and morbidity in the elderly and in people with chronic diseases. Observational studies of patients with a variety of chronic illnesses, including diabetes, show an increase in hospitalizations for influenza and its complications. In a case-control series, influenza vaccine was shown to reduce diabetes-related hospital admission by as much as 79% during flu epidemics.

Patient Self-Care Support				
Measure Title	Description	Numerator	Denominator	Rationale
Comp.Measure12: Patient self-care support	Percent of “excellent” or “very good” responses to seven questions regarding patient self-care support.	Number of “excellent” or “very good” responses to seven questions regarding patient self-care support ”: How is this practice at showing understanding of what it is like to live with diabetes? ... encouraging you to ask questions and answering them clearly? ... making sure you understand your recommended eating plan? ... making sure you have the information you need to take your medications properly? ... giving you information about	Number of all responses (excluding “not applicable” or skipped responses) to seven questions regarding patient self-care support.	

Patient Self-Care Support				
Measure Title	Description	Numerator	Denominator	Rationale
		side effects of your medications? ... making sure you have the information you need to take care of your feet? ... making sure you check your blood sugar at home?		
Patient knows blood pressure level as measured within past 12 months	Patients in the sample who report that their blood pressure was taken in the past 12 months and they know if the result was normal or too high	Number of patients in the sample who report that their blood pressure was taken in the past 12 months and they know if the result was normal or too high. To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Studies have shown that patients overall health status is improved when they possess the knowledge, skills, and motivation to perform appropriate self-care behaviors and actively participate in their treatment plan.
Patient knows cholesterol level as measured within past 12 months	Percentage of patients in the sample who report that their cholesterol was tested in the past 12 months and they know if it was fine or if it needed improvement	Number of patients in the sample who report that their cholesterol was tested in the past 12 months and they know if it was fine or if it needed improvement	Number of patients in the sample. To be included in the sample, patients need to have diabetes mellitus, and be between the ages of 15 and 90.	Studies have shown that patients overall health status is improved when they possess the knowledge, skills, and motivation to perform appropriate self-care behaviors and actively participate in their treatment plan.
Patient knows A1C level as measured within past 12 months	Patients in the sample who report that their hemoglobin A1C was tested in the past 12 months and they know if it was normal or too high	Number of patients in the sample who report that their hemoglobin A1C was tested in the past 12 months and they know if it was normal or too high. To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Studies have shown that patients overall health status is improved when they possess the knowledge, skills, and motivation to perform appropriate self-care behaviors and actively participate in their treatment plan.
Patient knows what to do for symptoms of low blood sugar	Patients in the sample who responded "yes, definitely" to the question "Do you know what to do if you have symptoms of low blood sugar?"	Number of patients in the sample who responded "yes, definitely" to the question "Do you know what to do if you have symptoms of low blood	Number of patients in the sample. To be included in the sample, patients need to be	Prevention of hypoglycemia is a critical component of diabetes management. Treatment of hypoglycemia (plasma glucose <70 mg/dl) requires ingestion of

Patient Self-Care Support				
Measure Title	Description	Numerator	Denominator	Rationale
		sugar?”. To be included in the sample, patients need to be between the ages of 15 and 90.	between the ages of 15 and 90.	glucose- or carbohydrate-containing foods.
Patient knows what fasting blood sugar should be	Patients in the sample who responded “yes, definitely” to the question “Do you know what your fasting blood sugar should be?”	Number of patients in the sample who responded “yes, definitely” to the question “Do you know what your fasting blood sugar should be?”. To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Diabetes self management education (DSME) should include education on interpreting blood glucose values and how to use the results to adjust medical nutritional therapy or medication therapy to achieve specific glycemic goal.
Patient knows what post-prandial blood sugar should be	Patients in the sample who responded “yes, definitely” to the question “Do you know what your blood sugar two hours after a meal should be?”	Number of patients in the sample who responded “yes, definitely” to the question “Do you know what your blood sugar two hours after a meal should be?”. To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Diabetes self management education (DSME) should include education on interpreting blood glucose values and how to use the results to adjust medical nutritional therapy or medication therapy to achieve specific glycemic goal.
Patient knows that a foot exam was done within the past 12 months	Patients in the sample who reported that their feet had been examined within the past 12 months.	Number of patients in the sample who responded “Yes” to the survey question, “In the past 12 months, has your doctor, someone on the doctor’s staff or a foot doctor examined your feet with your shoes and socks off?” To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded “Not applicable” to the survey question, “In the past 12 months, has your doctor, someone on the doctor’s staff or a foot doctor examined your feet with your shoes and socks off?” To be included in the sample, patients need to be	Patients with diabetes and high-risk foot conditions should be educated regarding their risk factors and appropriate management.

Patient Self-Care Support				
Measure Title	Description	Numerator	Denominator	Rationale
			between the ages of 15 and 90.	
Patient knows that an eye exam was done within the past 12 months	Patients in the sample who reported that their eyes had been examined in the last 12 months.	Number of patients in the sample who responded "Yes" to the survey question, "In the past 12 months, did you see an eye doctor at least once for an exam where your eyes were dilated with eye drops" To be included in the sample, patients need to have diabetes mellitus, and be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Studies have shown that patients overall health status is improved when they possess the knowledge, skills, and motivation to perform appropriate self-care behaviors and actively participate in their treatment plan.
Practice is excellent at showing understanding of living with diabetes	Patients in the sample who responded "excellent" to the question "How is this practice at showing understanding of what it is like to live with diabetes?"	Number of patients in the sample who responded "excellent" to the question "How is this practice at showing understanding of what it is like to live with diabetes?". To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Care should be patient-centered, respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions. Patients' overall experiences with doctors are shaped by communication style and content and both contribute to the likelihood that a patient will understand and be able to follow treatment recommendations.
Practice is excellent at encouraging questions and answering them clearly	Practice is excellent at encouraging questions and answering them clearly	Number of patients in the sample who responded "excellent" to the question "How is this practice at encouraging you to ask questions and answering them clearly?". To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Care should be patient-centered, respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions. Patients' overall experiences with doctors are shaped by communication style and content and both contribute to the likelihood that a patient will understand and be able to follow treatment recommendations.

Patient Self-Care Support				
Measure Title	Description	Numerator	Denominator	Rationale
Practice is excellent at providing information on taking medications properly	Patients in the sample who rated the practice “excellent” at providing information on taking medications properly.	Number of patients in the sample who responded “Excellent” to the survey question, “How is this practice at making sure you have the information you need to take your medications properly?” To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded “Not applicable” to the survey questions, “How is this practice at making sure you have the information you need to take your medications properly?” To be included in the sample, patients need to be between the ages of 15 and 90.	Care should be patient-centered, respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions. Patients’ overall experiences with doctors are shaped by communication style and content and both contribute to the likelihood that a patient will understand and be able to follow treatment recommendations.
Practice is excellent at providing information on side effects of medications	Patients in the sample who rated the practice “excellent” at providing information on side effects of medications.	Number of patients who responded “Excellent” to the survey question, “How is this practice at giving you information about side effects of your medications?” To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded “Not applicable” to the survey question, “How is this practice at giving you information about side effects of your medications?” To be included in the sample, patients need to be between the ages of 15 and 90.	Care should be patient-centered, respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions. Patients’ overall experiences with doctors are shaped by communication style and content and both contribute to the likelihood that a patient will understand and be able to follow treatment recommendations.
Practice is excellent at teaching foot care	Patients in the sample who rated the practice “excellent” at providing information about foot	Number of patients in the sample who responded “Excellent” to the survey	Number of patients in the sample, excluding those	Care should be patient-centered, respectful of and responsive to individual patient preferences,

Patient Self-Care Support				
Measure Title	Description	Numerator	Denominator	Rationale
	care.	question “How is this practice at making sure you have the information you need to take care of your feet?” To be included in the sample, patients need to be between the ages of 15 and 90.	who responded “Not applicable” to the survey question, “How is this practice at making sure you have the information you need to take care of your feet?” To be included in the sample, patients need to be between the ages of 15 and 90.	needs, and values and ensuring that patient values guide all clinical decisions. Patients’ overall experiences with doctors are shaped by communication style and content and both contribute to the likelihood that a patient will understand and be able to follow treatment recommendations.
Practice is excellent at providing information on proper diabetic diet	Patients in the sample who rated the practice “excellent” at making sure they understand their recommended eating plan	Number of patients who responded “Excellent” to the survey question, “How is this practice at giving making sure you understand your recommended eating plan?” To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample. To be included in the sample, patients need to be between the ages of 15 and 90.	Care should be patient-centered, respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions. Patients’ overall experiences with doctors are shaped by communication style and content and both contribute to the likelihood that a patient will understand and be able to follow treatment recommendations.
Practice is excellent at teaching home blood glucose monitoring	Patients in the sample who rated the practice “excellent” at teaching home blood glucose monitoring.	Number of patients in the sample who responded “Excellent” to the patient survey question, “How is this practice at making sure you check your blood sugar at home?” To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded “Not applicable” to the survey question, “How is this practice at making sure you check your blood sugar at home?” To be included in	Diabetes self management education (DSME) is an essential element of diabetes care. DSME helps people with diabetes initiate effective self-care when they are first diagnosed. Ongoing DSME also helps people with diabetes maintain effective self-management. DSME helps patients optimize metabolic control, prevent and manage complications, and maximize

Patient Self-Care Support				
Measure Title	Description	Numerator	Denominator	Rationale
			the sample, patients need to be between the ages of 15 and 90.	quality of life.

Access to the Practice				
Measure Title	Description	Numerator	Denominator	Rationale
Patient reports no problem with scheduling appointments	Percentage of patients in the sample who report no problems scheduling appointments with the practice.	Number of patients in the sample who responded "Not a problem" to the survey question, "In the past 12 months, how much of a problem has it been to schedule appointments with this practice?" To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded "Not applicable" to the survey question, "In the past 12 months, how much of a problem has it been to schedule appointments with this practice?" To be included in the sample, patients need to be between the ages of 15 and 90.	A key expectation for many patients is the ability to get medical care when they believe they need it.
Patient reports no problem with reaching someone with a question	Percentage of patients in the sample who report no problems reaching the practice with questions or concerns.	Number of patients in the sample who responded "Not a problem" to the survey question, "In the past 12 months, how much of a problem has it been to reach this practice when you have a question or concern?" To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded "Not applicable" to the survey question, "In the past 12 months, how much of a problem has it been to reach this practice when you	The IOM recommendation is that patients should receive care whenever they need it and in many forms, not just face-to-face visits. This implies that the health care system should be responsive at all times (24 hours a day, every day) and that access to care should be provided over the Internet, by telephone, and by other means in addition to face-to-face visits.

Access to the Practice				
Measure Title	Description	Numerator	Denominator	Rationale
			have a question or concern?" To be included in the sample, patients need to be between the ages of 15 and 90.	
Patient reports no problem with obtaining prescription refills	Percentage of patients in the sample who report no problems obtaining prescription refills from the practice.	Number of patients in the sample who responded "Not a problem" to the survey question, "In the past 12 months, how much of a problem has it been to get a prescription refill from this practice?" To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded "Not applicable" to the survey question, "In the past 12 months, how much of a problem has it been to get a prescription refill from this practice?" To be included in the sample, patients need to be between the ages of 15 and 90.	The IOM recommendation is that patients should receive care whenever they need it and in many forms, not just face-to-face visits. This implies that the health care system should be responsive at all times (24 hours a day, every day) and that access to care should be provided over the Internet, by telephone, and by other means in addition to face-to-face visits.
Patient reports no problem with obtaining referrals	Percentage of patients in the sample who report no problems obtaining referrals from the practice	Number of patients in the sample who responded "Not a problem" to the survey question, "In the past 12 months, how much of a problem has it been to get a referral from this practice?" To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded "Not applicable" to the survey question, "In the past 12 months, how much of a problem has it been to get a referral from this practice?" To be included in the sample, patients need to	The IOM recommendation is that patients should receive care whenever they need it and in many forms, not just face-to-face visits. This implies that the health care system should be responsive at all times (24 hours a day, every day) and that access to care should be provided over the Internet, by telephone, and by other means in addition to face-to-face visits.

Access to the Practice				
Measure Title	Description	Numerator	Denominator	Rationale
			between the ages of 15 and 90.	
Patient reports no problem with obtaining test results	Percentage of patients in the sample who report no problems obtaining test results from the practice.	Number of patients in the sample who responded "Not a problem" to the survey question, "In the past 12 months, how much of a problem has it been to get your laboratory test results from this practice?" To be included in the sample, patients need to be between the ages of 15 and 90.	Number of patients in the sample, excluding those who responded "Not applicable" to the survey question, "In the past 12 months, how much of a problem has it been to get your laboratory test results from this practice?" To be included in the sample, patients need to be between the ages of 15 and 90.	The IOM recommendation is that patients should receive care whenever they need it and in many forms, not just face-to-face visits. This implies that the health care system should be responsive at all times (24 hours a day, every day) and that access to care should be provided over the Internet, by telephone, and by other means in addition to face-to-face visits.

© 2010 American Board of Internal Medicine. All rights reserved. ABIM publications are protected by United States and international copyright laws. Written permission for any reproduction or adaptation, in whole or in part, in any format or medium must be obtained from ABIM. Contact request@abim.org.