## 2010 Physician Quality Reporting Initiative (PQRI)

# Group Practice Reporting Option (GPRO)

Narrative Measure Specifications

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## 2010 Physician Quality Reporting Initiative (PQRI) Group Practice Reporting Option (GPRO) Narrative Measure Specifications

## Introduction

The GPRO is a reporting option for PQRI that incorporates some characteristics and methods from the demonstration projects, Medicare Care Management Performance (MCMP) and Physician Group Practice (PGP). In order to participate in the 2010 GPRO, practices are required to complete a self-nomination process and meet certain technical and other requirements.

For the purposes of 2010 PQRI, a "group practice" consists of a physician group practice as defined by a Tax Identification Number (TIN) with at least 200 or more individual eligible professionals [or as identified by individual National Provider Identifier (NPI)] who have reassigned their billing rights to the TIN. The initial implementation of the GPRO will be limited to practices with 200 or more individual eligible professionals.

There are a total of 26 NQF-endorsed quality measures included in GPRO targeting high-cost chronic conditions and preventive care. The measure specifications are grouped into four disease modules: diabetes mellitus (8 measures); heart failure (7 measures); coronary artery disease (4 measures), and hypertension (3 measures). In addition, there are 4 preventive care measures.

A database pre-populated with an assigned beneficiary sample and the quality measures will serve as a data collection tool for groups to use in collecting and submitting data to CMS. The data collected will be based on services furnished during the January 1, 2010 through December 31, 2010 reporting period.

Group practices who satisfactorily submit data on PQRI quality measures via GPRO are eligible to earn an incentive of 2% of the group practice's Medicare Part B PFS total estimated allowed charges for covered services furnished by the group during the reporting period. This incentive is in lieu of PQRI individual NPI's incentive payments.

Narrative measure specifications are being provided to allow group practices an opportunity to have a better understanding of each of the 26 quality measures included in the 2010 GPRO. Once a group practice is selected to participate in 2010 PQRI using this reporting option, additional detailed information will be provided.

Each Measure Specification includes the following information:

- Measure title
- Measure description
- Numerator statement
- Denominator statement
- Exclusions applicable to measure
- Rationale statement for measure
- Clinical recommendations or evidence forming the basis or supporting criteria for the measure
- Measure developer

#### GPRO DM-1: Diabetes Mellitus: Hemoglobin A1c Testing

#### **DESCRIPTION:**

Percentage of patients aged 18 through 75 years of age with diabetes mellitus who had hemoglobin A1c (HbA1c) testing

#### NUMERATOR:

Patients with one or more HbA1c test(s) performed during the measurement period

#### **DENOMINATOR:**

Patients aged 18 through 75 years with a diagnosis of diabetes

#### WITHOUT

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

### RATIONALE:

Diabetes is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or use the hormone insulin. It is one of the leading causes of death and disability in the U.S. More than 20 million Americans live with diabetes today. One-third of people with diabetes are not diagnosed. Much of the burden of illness and cost of diabetes treatment is attributed to potentially preventable long-term complications including heart disease, blindness, kidney disease and stroke. Timely screening and treatment can significantly reduce the disease burden. Prolonged hyperglycemia causes nonenzymatic glycosylation of proteins in tissue and blood, including hemoglobin in erythrocytes. Similar glycosylation of tissue proteins may be involved in pathologic processes which occur in the microvasculature in diabetes. Measurement of glycated proteins such as hemoglobin or other serum proteins can quantify average levels of blood glucose over a period of weeks to months depending on the component measured. In the case of glycosylated hemoglobin, this corresponds to about the life cycle of a red blood cell, or 120 days (3 months). Other glycated serum proteins, such as fructosamine, represent short term changes in glycemia on the order of one to two weeks. The relationship of glucose levels over time to glycohemoglobin makes it a convenient long-term measure of glycemic control. Considering the interval during which glycosylation of hemoglobin occurs, the American Diabetes Association (ADA) recommends testing frequency from one to four times a year depending on the stability of control (ADA, 1997a).

### **CLINICAL RECOMMENDATION STATEMENTS:**

American Association of Clinical Endocrinologist/American College of Endocrinology (AACE/ACE): Recommend that a glycosylated hemoglobin be performed during an initial assessment and during followup assessments, which occur at no longer than three-month intervals. American Diabetes Association (ADA): Recommends obtaining a glycosylated hemoglobin during an initial assessment and then routinely as part of continuing care. In the absence of well-controlled studies that suggest a definite testing protocol, expert opinion recommends glycosylated hemoglobin be obtained at least twice a year in patients who are meeting treatment goals and who have stable glycemic control and more frequently (quarterly assessment) in patients whose therapy was changed or who are not meeting glycemic goals.

#### GPRO DM-2: Diabetes Mellitus: Hemoglobin A1c Poor Control in Diabetes Mellitus

#### **DESCRIPTION:**

Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent hemoglobin A1c greater than 9.0%

#### NUMERATOR:

Patients with most recent hemoglobin A1c level > 9.0%

#### **DENOMINATOR:**

Patients aged 18 through 75 years with the diagnosis of diabetes *WITHOUT* 

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### **RATIONALE:**

Intensive therapy of glycosylated hemoglobin (A1c) reduces the risk of microvascular complications.

#### CLINICAL RECOMMENDATION STATEMENTS:

A glycosylated hemoglobin should be performed during an initial assessment and during follow-up assessments, which should occur at no longer than three-month intervals. (AACE/ACE)

The A1c should be universally adopted as the primary method of assessment of glycemic control. On the basis of data from multiple interventional trials, the target for attainment of glycemic control should be A1c values ≤6.5%. (AACE/ACE)

Obtain a glycosylated hemoglobin during an initial assessment and then routinely as part of continuing care. In the absence of well-controlled studies that suggest a definite testing protocol, expert opinion recommends glycosylated hemoglobin be obtained at least twice a year in patients who are meeting treatment goals and who have stable glycemic control and more frequently (quarterly assessment) in patients whose therapy was changed or who are not meeting glycemic goals. (Level of Evidence: E) (ADA)

Because different assays can give varying glycated hemoglobin values, the ADA recommends that laboratories only use assay methods that are certified as traceable to the Diabetes Control and Complications Trial A1c reference method. The ADA's goal for glycemic control is A1c <7%. (Level of Evidence: B) (ADA)

Monitor and treat hyperglycemia, with a target A1c of 7%, but less stringent goals for therapy may be appropriate once patient preferences, diabetes severity, life expectancy and functional status have been considered. (AGS)

#### GPRO DM-3: Diabetes Mellitus: High Blood Pressure Control in Diabetes Mellitus

#### **DESCRIPTION:**

Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent blood pressure in control (less than 140/80 mmHg)

#### NUMERATOR:

Patients whose most recent blood pressure < 140/80 mmHg

#### DENOMINATOR:

Patients aged 18 through 75 years with the diagnosis of diabetes *WITHOUT* 

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### **RATIONALE:**

Intensive control of blood pressure in patients with diabetes reduces diabetes complications, diabetesrelated deaths, strokes, heart failure, and microvascular complications.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Recommends that a blood pressure determination during the initial evaluation, including orthostatic evaluation, be included in the initial and every interim physical examination. (AACE/ACE)

Blood pressure control must be a priority in the management of persons with hypertension and type 2 diabetes. (ACP)

Blood pressure should be measured at every routine diabetes visit. Patients found to have systolic blood pressure >130 mmHg or diastolic >80 mmHg should have blood pressure confirmed on a separate day. Orthostatic measurement of blood pressure should be performed to assess for the presence of autonomic neuropathy. (Level of Evidence: E) (ADA)

Older persons with diabetes are likely to benefit greatly from cardiovascular risk reduction, therefore monitor and treat hypertension and dyslipidemias. (AGS)

Measurement of blood pressure in the standing position is indicated periodically, especially in those at risk for postural hypotension. At least two measurements should be made and the average recorded. After BP is at goal and stable, follow-up visits can usually be at 3- to 6-month intervals. Comorbidities such as heart failure, associated diseases such as diabetes, and the need for laboratory tests influence the frequency of visits. (JNC)

All individuals should be evaluated during health encounters to determine whether they are at increased risk of having or of developing chronic kidney disease. This evaluation of risk factors should include blood pressure measurement. (NKF)

#### GPRO DM-5: Diabetes Mellitus: Low Density Lipoprotein (LDL-C) Control in Diabetes Mellitus

#### **DESCRIPTION:**

Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent LDL-C level in control (less than 100 mg/dl)

#### NUMERATOR:

Patients with most recent LDL-C < 100 mg/dL

#### DENOMINATOR:

Patients aged 18 through 75 years with the diagnosis of diabetes *WITHOUT* 

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### **RATIONALE:**

Persons with diabetes are at increased risk for coronary heart disease (CHD). Lowering serum cholesterol levels can reduce the risk for CHD events.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

A fasting lipid profile should be obtained during an initial assessment, each follow-up assessment, and annually as part of the cardiac-cerebrovascular-peripheral vascular module. (AACE/ACE)

A fasting lipid profile should be obtained as part of an initial assessment. Adult patients with diabetes should be tested annually for lipid disorders with fasting serum cholesterol, triglycerides, HDL cholesterol, and calculated LDL cholesterol measurements. If values fall in lower-risk levels, assessments may be repeated every two years. (Level of Evidence: E) (ADA)

Patients who do not achieve lipid goals with lifestyle modifications require pharmacological therapy. Lowering LDL cholesterol with a statin is associated with a reduction in cardiovascular events. (Level of Evidence: A)

Lipid-lowering therapy should be used for secondary prevention of cardiovascular mortality and morbidity for all patients with known coronary artery disease and type 2 diabetes. (ACP)

Statins should be used for primary prevention against macrovascular complications in patients with type 2 diabetes and other cardiovascular risk factors.

Once lipid-lowering therapy is initiated, patients with type 2 diabetes mellitus should be taking at least moderate doses of a statin.

Older persons with diabetes are likely to benefit greatly from cardiovascular risk reduction, therefore monitor and treat hypertension and dyslipidemias. (AGS)

✤ GPRO DM-6: Diabetes Mellitus: Urine Screening for Microalbumin or Medical Attention for Nephropathy in Diabetic Patients

#### DESCRIPTION:

Percentage of patients aged 18 through 75 years with diabetes mellitus who received urine protein screening or medical attention for nephropathy during at least one office visit within 12 months

#### NUMERATOR:

Patients who have a nephropathy screening during at least one office visit within 12 months

#### **DENOMINATOR:**

All patients aged 18 through 75 years with the diagnosis of diabetes *WITHOUT* 

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### RATIONALE:

Nephropathy is a frequent complication of renal disease for both type 1 and type 2 diabetes and often ends in end-stage renal disease (ESRD) (ADA, 2002). Of all people with diabetes, 10-21% have nephropathy (ADA 2002).

#### **CLINICAL RECOMENNDATION STATEMENTS:**

American Association of Clinical Endocrinologists and American College of Endocrinology (AACE/ACE): Recommends that the initial assessment should include a urinalysis, test for microalbuminuria and creatinine clearance. The renal complication module should be performed annually and includes a test for microalbuminuria and creatinine clearance (AACE/ACE, 2002).

American Diabetes Association (ADA): A test for the presence of microalbumin should be performed at diagnosis in patients with type 2 diabetes. Microalbuminuria rarely occurs with short duration of type 1 diabetes; therefore, screening in individuals with type 1 diabetes should begin after 5 years' disease duration (Level of Evidence: E). However, some evidence suggests that the prepubertal duration of diabetes may be important in the development of microvascular complications; therefore, clinical judgment should be exercised when individualizing these recommendations. Because of the difficulty in precise dating of the onset of type 2 diabetes, such screening should begin at the time of diagnosis. After the initial screening and in the absence of previously demonstrated microalbuminuria, a test for the presence of microalbumin should be performed annually (ADA, 2004).

Screening for microalbuminuria can be performed by three methods:

- 1) measurement of the albumin-to-creatinine ratio in a random spot collection
- 2) 24-h collection with creatinine, allowing the simultaneous measurement of creatinine clearance
- 3) timed (e. g. 4-h or overnight) collection the analysis of a spot sample for the albumin-tocreatinine ratio is strongly recommended.

The role of annual microalbuminuria assessment is less clear after diagnosis of microalbuminuria and institution of angiotensin-converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy

and blood pressure control. Many experts recommend continued surveillance to assess both response to therapy and progression of disease.

National Kidney Foundation (NKF): Individuals at increased risk, but found not to have chronic kidney disease, should be advised to follow a program of risk factor reduction, if appropriate, and undergo repeat periodic evaluation (NKF, 2003).

A comparative analysis of recommendations and evidence in diabetes guidelines from 13 countries (including the American Diabetes Association and Canadian Medical Association) found there was agreement among the guidelines that ACE inhibitors should be recommended to patients with hypertension and renal disease (Burgers, 2002).

The ADA also recommends that for the treatment of both micro- and macroalbuminuria, ARBs should be used except during pregnancy (ADA, 2005).

#### GPRO DM-7: Diabetes Mellitus: Dilated Eye Exam in Diabetic Patient

#### **DESCRIPTION:**

Percentage of patients aged 18 through 75 years with a diagnosis of diabetes mellitus who had a dilated eye exam

#### NUMERATOR:

Patients who had a dilated eye exam for diabetic retinal disease at least once within 12 months

#### **DENOMINATOR:**

All patients aged 18 through 75 years with a diagnosis of diabetes *WITHOUT* 

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### **RATIONALE:**

Examination of the eyes is the first step in the treatment of any existing or developing conditions related to retinopathy and the first step in the prevention of blindness.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

AACE/ACE, ADA, and American Academy of Ophthalmology (AAO): Recommend that a dilated eye examination be performed on patients with diabetes during an initial assessment and at least annually thereafter. (AACE/ACE, 2002; ADA, 2004; AAO, 1998; Hammond, 1998)

American Association of Clinical Endocrinologists and American College of Endocrinology (AACE/ACE): Recommend that the annual eye examination be performed as part of a retinal module. The module includes test of visual acuity (Snellen chart); funduscopic examination and intraocular pressure (IOP) test. The AACE/ACE recommends that diabetic patients should be under the care of an ophthalmologist experienced in the management of diabetic retinopathy. AACE/ACE further believes that a dilated eye exam should only be done by an MD/DO. (AACE/ACE, 2002)

American Diabetes Association (ADA): Patients with type 1 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist within 3-5 years after the onset of diabetes. In general evaluation for diabetic eye disease is not necessary before 10 years of age. However, some evidence suggests that the prepubertal duration of diabetes may be important in the development of microvascular complications; therefore, clinical judgment should be used when applying these recommendations to individual patients. (Level of Evidence: B)

Subsequent 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. Examination will be required more frequently if retinopathy is progressing. This follow-up interval is recommended recognizing that there are limited data addressing this issue. (Level of Evidence: B)

Seven standard field stereoscopic 30° fundus photography is an accepted method for examining diabetic retinopathy. (ADA, 2004)

American Academy of Ophthalmology (AAO): Recommends that diabetic patients should be under the care of an ophthalmologist experienced in the management of diabetic retinopathy. Ophthalmologists with specialized knowledge and experience in managing the disease are best able to detect and treat serious disease. Stereoscopic photographs offer an advantage over nonstereoscopic photographs, and the traditional "seven stereo fields" provide the most complete coverage. (AAO, 1998; Hammond, 1996)

American Geriatrics Society (AGS): Dilated eye examinations should be performed every two years at a minimum, and more often if there are additional risk factors for diabetic eye disease or evidence of agerelated eye disease. (CHF/AGS, 2003)

#### • GPRO DM-8: Diabetes Mellitus: Foot Exam

#### **DESCRIPTION:**

The percentage of patients aged 18 through 75 years with diabetes who had a foot examination

#### NUMERATOR:

Patients who received a foot exam (visual inspection, sensory exam with monofilament, or pulse exam)

#### **DENOMINATOR:**

Patients aged 18 through 75 years with a diagnosis of diabetes

#### WITHOUT

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusion only applied if patient did not receive a foot examination)

• Documentation of medical reason for not receiving foot exam (i.e. patient with bilateral foot/leg amputation)

#### RATIONALE:

The most common consequences of diabetic neuropathy are amputation and foot ulceration (ADA, 2006). In developed countries, up to five percent of diabetic patients have foot ulcers (IDF, 2005). One in every six diabetics will have an ulcer during their lifetime (IDF, 2005). Amputation and foot ulceration are also major causes of morbidity and mortality. One half to 80% of all amputations are diabetes-related (Mayfield, 1998; Reiber, 1995; ADA, 2001; Unwin, 2000). The risk of ulcers or amputations increases the longer someone has diabetes. Early recognition and management of risk factors can prevent or delay adverse outcomes (ADA, 2006).

#### **CLINICAL RECOMMENDATION STATEMENTS:**

American Association of Clinical Endocrinologists/American College of Endocrinology (AACE/ACE) and American Diabetes Association (ADA) recommend that a foot examination (visual inspection, sensory exam, and pulse exam) be performed during an initial assessment.

AACE/ACE (2002) recommends that a foot examination be a part of every follow-up assessment visit, which should occur quarterly.

ADA (2004) recommends that all individuals with diabetes should receive an annual foot examination to identify high-risk foot conditions. This examination should include assessment of protective sensation, foot structure and biomechanics, vascular status, and skin integrity.

The ADA (2004) recommends that people with one or more high-risk foot conditions should be evaluated more frequently for the development of additional risk factors. People with neuropathy should have a visual inspection of their feet at every contact with a health care professional.

#### • GPRO DM-9: Diabetes Mellitus: Lipid Profile

#### **DESCRIPTION:**

Percentage of patients aged 18 through 75 years of age with diabetes who received at least one lipid profile within 12 months

#### NUMERATOR:

Patients who received at least one lipid profile (or ALL component tests)

#### DENOMINATOR:

Patients aged 18 through 75 years with the diagnosis of diabetes *WITHOUT* 

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### **RATIONALE:**

Studies indicate that diabetes is associated with a higher risk of coronary heart disease (CHD) (Kannel, 1979 and Wingard, 1995). CHD is the most common cause of death among adults with diabetes. The increased risk of coronary heart disease in people with Type 2 diabetes (95% of all diabetics) has been linked with dyslipidemia, hypertension, obesity, and smoking (Pyorala, 1987 and Bierman, 1992). The relative risk in diabetic women is greater than in diabetic men, but the absolute risk is greater in men than in women. Diabetic patients are more likely to have small, dense form of LDL (pattern B), which is more atherogenic than normal LDL. Because of this, diabetics may be at a greater risk of CHD at LDL levels considered to be within the normal range for non-diabetics.

In the 4S, CARE, and Post-CABG trials, reductions in LDL levels led to decreases in coronary events (Bloomgarden, 1997). The 4S showed reductions of 55% in the number of events in diabetics compared to 32% in non-diabetics. In the CARE study, both diabetic and non-diabetic subjects showed a 25% reduction in coronary events. The combination of data from these two studies produces a near linear relationship between cholesterol and the risk of coronary events. The Post-CABG study also showed benefits from reducing cholesterol from 130 to 95 mg/dL (Bloomgarden, 1997).

#### CLINICAL RECOMMENDATION STATEMENTS:

The American Diabetes Association (ADA) recommends that a fasting lipid profile be obtained as part of an initial assessment. Adult patients with diabetes should be tested annually for lipid disorders with fasting serum cholesterol, triglycerides, HDL cholesterol, and calculated LDL cholesterol measurements. If values fall in lower-risk levels, assessments may be repeated every two years. (Level of evidence: E) (ADA, 2004). Patients who do not achieve lipid goals with lifestyle modifications require pharmacological therapy. Lowering LDL cholesterol with a statin is associated with a reduction in cardiovascular events. (Level of evidence: A) (ADA, 2004).

#### ▲ GPRO HF-1: Heart Failure: Left Ventricular Function (LVF) Assessment

#### **DESCRIPTION:**

Percentage of patients aged 18 years and older with a diagnosis of heart failure who have quantitative or qualitative results of LVF assessment recorded

#### NUMERATOR:

Patients with quantitative or qualitative results of LVF assessment recorded

#### **DENOMINATOR:**

All patients aged  $\geq$  18 years and older with a diagnosis of heart failure

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### RATIONALE:

Evaluation of LVEF in patients with heart failure provides important information that is required to appropriately direct treatment. Several pharmacologic therapies have demonstrated efficacy in slowing disease progression and improving outcomes in patients with left ventricular systolic dysfunction. LVEF assessed during the initial evaluation of patients presenting with heart failure can be considered valid unless the patient has demonstrated a major change in clinical status, experienced or recovered from a clinical event, or received therapy that might have a significant effect on cardiac function. A comprehensive 2-dimensional echocardiogram with Doppler flow studies has been identified as the single most useful diagnostic test in the evaluation of patients with heart failure.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Two-dimensional echocardiography with Doppler should be performed during initial evaluation of patients presenting with HF to assess LVEF, LV size, wall thickness, and valve function. Radionuclide ventriculography can be performed to assess LVEF and volumes. adionuclide ventriculography can be performed to assess LVEF and volumes. (Class I, Level of Evidence: C) (ACC/AHA, 2009)

### GPRO HF-2: Heart Failure: Left Ventricular Function (LVF) Testing

#### **DESCRIPTION:**

Percentage of patients with LVF testing during the current year for patients hospitalized with a principal diagnosis of heart failure (HF) during the measurement period

#### NUMERATOR:

Patients with LVF testing during the measurement period

#### **DENOMINATOR:**

All patients with a principal diagnosis of  $HF \ge 18$  years of age hospitalized during the measurement period

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient did not receive LVF testing during the measurement period if patient was hospitalized for HF)

- Documentation of medical reason(s) for not obtaining LVF testing during the measurement period if patient was hospitalized for HF
- Documentation of patient reason(s) for not obtaining LVF testing during the measurement if patient was hospitalized for HF

#### RATIONALE:

Appropriate selection of medications to reduce morbidity and mortality in heart failure requires the identification of patients with impaired left ventricular systolic function. National guidelines advocate the evaluation of left ventricular systolic function as the single most important diagnostic test in the management of all patients with heart failure (Hunt, 2005). Despite these recommendations, left ventricular systolic function is not evaluated in a substantial proportion of eligible older patients hospitalized with heart failure (Jencks, 2000).

#### **CLINICAL RECOMMENDATION STATEMENTS:**

In patients with HF, an assessment of left ventricular systolic function with 2-dimensional echocardiography or radionuclide ventriculography is recommended. (Class 1 Recommendation, Level-C Evidence) (ACC/AHA)

In patients with a change in clinical status or clinical event/treatment with significant effect on cardiac function, repeat measurement of ejection fraction is recommended. (Level-C Evidence) (ACC/AHA)

#### MEASURE DEVELOPER: CMS-QIP

#### GPRO HF-3: Heart Failure: Weight Measurement

#### **DESCRIPTION:**

Percentage of patient visits for patients aged 18 years and older with a diagnosis of heart failure with weight measurement recorded

#### NUMERATOR:

Patient visits with weight measurement recorded

#### **DENOMINATOR:**

All patient visits for patients with heart failure (HF)  $\geq$  18 years of age

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusion only applied if patient did not receive weight measurement)

• Documentation of medical reason(s) for not receiving weight measurement

#### RATIONALE:

Weight and fluid monitoring is essential for heart failure patients. Significant changes in weight are often indications that the patient is in fluid overload. A thorough physical examination is recommended to identify cardiac and non-cardiac disorders that may accelerate the progression of HF. A careful history of heart failure patients focused on volume status plays a pivotal role in determining the need for or adjustment of diuretic therapy and in detecting sodium excesses or deficiencies that may limit efficacy and decrease the tolerability of drugs used to treat HF. Short-term changes in fluid status are best assessed by measuring changes in body weight. However, changes in body weight may be less reliable during long periods of follow-up, because many patients lose skeletal muscle mass and body fat as the disease progresses due to the development of cardiac cachexia. (ACC/AHA)

#### CLINICAL RECOMMENDATION STATEMENTS:

A thorough physical examination is recommended to identify cardiac and noncardiac disorders that may accelerate the progression of HF. This physical examination may include initial and ongoing assessments of the patient's volume status. (Class 1 Recommendation Level-C Evidence)

#### ▲ GPRO HF-5: Heart Failure: Patient Education

#### **DESCRIPTION:**

Percentage of patients aged 18 years and older with a diagnosis of heart failure who were provided with patient education on disease management and health behavior changes during one or more visit(s) within 12 months

#### NUMERATOR:

Patients who were provided with patient education on disease management and health behavior changes\* during one or more visits within 12 months

**Definition:** \*Patient education should include one or more of the following: Weight monitoring; Diet (sodium restriction); Symptom management; Physical activity; Smoking cessation; Medication instruction; Minimizing or avoiding use of NSAIDs; Referral for visiting nurse, or specific educational or management programs; Prognosis/end-of-life issues

#### **DENOMINATOR:**

All patients aged 18 years and older with a diagnosis of heart failure who were seen at least twice for any visits within 12 months

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### RATIONALE:

Patient education is an essential nonpharmacological component to heart failure care. It may reduce the likelihood of noncompliance with recommended therapeutic strategies and lead to early identification of worsening clinical status and subsequent treatment. Heart failure disease management programs, in which patient education is an integral component, have been shown to be effective in improving self-care and reducing readmissions.

### **CLINICAL RECOMMENDATION STATEMENTS:**

Patients at high risk for developing HF should be counseled to avoid behaviors that may increase the risk of HF (e.g., smoking, excessive alcohol consumption, and illicit drug use). (Class I, Level of Evidence: C) (ACC/AHA, 2009).

It is recommended that patients with HF and their family members or caregivers receive individualized education and counseling that emphasizes self-care. (Strength of Evidence=B) (HFSA, 2006).

Elements of Education	Skill Building and Critical Target Behaviors
Definition of HF (linking disease, symptoms, and treatment) and cause of patient's HF	Discuss basic HF information, cause of patient's HF, and how symptoms are related
Recognition of escalating symptoms and selection of appropriate treatments in response to particular symptoms	<ul> <li>Monitor for specific signs and symptoms (e.g., increasing fatigue doing usual activities, increasing shortness of breath with activity, shortness of breath at rest, need to sleep with increasing number of pillows, waking at night with shortness of breath, edema)</li> <li>Perform and document daily weights</li> <li>Develop action plan for how and when to notify the provider</li> <li>Institute flexible diuretic regimen, if appropriate</li> </ul>
Indications and use of each medication	• Reiterate medication dosing schedule, basic reason for specific medications, and what to do if a dose is missed
Importance of risk factor modification	<ul> <li>Smoking cessation</li> <li>State blood pressure goal and know own blood pressure from recent measurement</li> <li>Maintain normal HgA1c, if diabetic</li> <li>Maintain specific body weight</li> </ul>
Specific diet recommendations: individualized low-sodium diet; recommendation for alcohol intake	<ul> <li>Reiterate recommended sodium intake</li> <li>Demonstrate how to read a food label to check sodium amount per serving and sort foods into high- and low-sodium groups</li> <li>Reiterate limits for alcohol consumption or need for abstinence if history of alcohol abuse</li> </ul>
Specific activity/exercise recommendations	<ul> <li>Reiterate goals for exercise and plan for achieving</li> <li>Reiterate ways to increase activity level</li> </ul>
Importance of treatment adherence and behavioral strategies to promote	<ul> <li>Plan and use a medication system that promotes routine adherence</li> <li>Plan for refills</li> </ul>

Essential Elements of Patient Education With Associated Skills and Target Behaviors (HFSA, 2006).

▲ GPRO HF-6: Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

#### DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of heart failure who also have LVSD (LVEF < 40%) and who were prescribed beta-blocker therapy

#### NUMERATOR:

Patients who were prescribed beta-blocker therapy

#### **DENOMINATOR:**

Patients aged 18 years and older with a diagnosis of heart failure with left ventricular ejection fraction (LVEF) < 40% or with moderately or severely depressed left ventricular systolic function

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient was not prescribed beta-blocker therapy)

- Documentation of medical reason(s) for not prescribing beta-blocker therapy
- Documentation of patient reason(s) for not prescribing beta-blocker therapy
- Documentation of system reason(s) for not prescribing beta-blocker therapy

#### RATIONALE:

Beta-blockers are recommended for all patients with symptoms of heart failure and left ventricular systolic dysfunction, unless contraindicated. Treatment with beta-blockers has been shown to provide multiple benefits to the patient, including reducing the symptoms of heart failure, improving the clinical status of patients, and decreasing the risk of mortality and hospitalizations.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Beta-blockers (using 1 of the 3 proven to reduce mortality, i.e., bisoprolol, carvedilol, and sustained release metoprolol succinate) are recommended for all stable patients with current or prior symptoms of HF and reduced LVEF, unless contraindicated. (Class I Recommendation, Level of Evidence: A) (ACC/AHA)

## ▲ GPRO HF-7: Heart Failure: Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

#### DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of heart failure and LVSD (LVEF < 40%) who were prescribed ACE inhibitor or ARB therapy

#### **NUMERATOR:**

Patients who were prescribed ACE inhibitor or ARB therapy

#### **DENOMINATOR:**

Heart failure patients aged 18 years and older with LVEF < 40% or with moderately or severely depressed left ventricular systolic function

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient was not prescribed ACE or ARB therapy)

- Documentation of medical reason(s) for not prescribing ACE or ARB therapy
- Documentation of patient reason(s) for not prescribing ACE or ARB therapy
- Documentation of system reason(s) for not prescribing ACE or ARB therapy

#### **RATIONALE:**

In the absence of contraindications, ACE Inhibitors or ARBs are recommended for all patients with symptoms of heart failure and reduced left ventricular systolic function, as measured by left ventricular ejection fraction (LVEF). Both drugs have been shown to decrease mortality and hospitalizations.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Angiotensin converting enzyme inhibitors are recommended for all patients with current or prior symptoms of HF and reduced LVEF, unless contraindicated. (Class I Recommendation, Level of Evidence: A) (ACC/AHA)

Angiotensin II receptor blockers approved for the treatment of HF are recommended in patients with current or prior symptoms of HF and reduced LVEF who are ACEI-intolerant. (Class I Recommendation, Level of Evidence: A) (ACC/AHA)

Angiotensin II receptor blockers are reasonable to use as alternatives to ACEIs as first-line therapy for patients with mild to moderate HF and reduced LVEF, especially for patients already taking ARBs for other indications. (Class IIa Recommendation, Level of Evidence: A) (ACC/AHA)

#### ▲ GPRO HF-8: Heart Failure: Warfarin Therapy for Patients with Atrial Fibrillation

#### **DESCRIPTION:**

Percentage of all patients aged 18 and older with a diagnosis of heart failure and paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy

#### NUMERATOR:

Patients who were prescribed warfarin therapy

#### DENOMINATOR:

All heart failure patients aged 18 years and older with paroxysmal or chronic atrial fibrillation

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient was not prescribed warfarin therapy)

- Documentation of medical reason(s) for not prescribing warfarin therapy
- Documentation of patient reason(s) for not prescribing warfarin therapy
- Documentation of system reason(s) for not prescribing warfarin therapy

#### RATIONALE:

Adjusted-dose warfarin is highly efficacious in preventing thromboembolism in patients with AF and should be prescribed for all patients with AF and heart failure except those with contraindications to anticoagulation.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Physicians should prescribe anticoagulants in patients with HF who have paroxysmal or persistent atrial fibrillation or a previous thromboembolic event. (Class I, Level of Evidence: A)

## ▲ GPRO CAD-1: Coronary Artery Disease (CAD): Oral Antiplatelet Therapy Prescribed for Patients with CAD

#### **DESCRIPTION:**

Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed oral antiplatelet therapy

#### NUMERATOR:

Patients who were prescribed oral antiplatelet therapy

#### **DENOMINATOR:**

All patients aged 18 years and older with a diagnosis of coronary artery disease

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient was not prescribed antiplatelet therapy)

- Documentation of medical reason(s) for not prescribing oral antiplatelet therapy
- Documentation of patient reason(s) for not prescribing oral antiplatelet therapy
- Documentation of system reason(s) for not prescribing oral antiplatelet therapy

#### RATIONALE:

Oral antiplatelet therapy, preferably aspirin unless contraindicated, is recommended for all patients with coronary artery disease. By limiting the ability of clots to form in the arteries, antiplatelet agents have proven benefits in reducing the risk of non-fatal myocardial infarction, non-fatal stroke and death.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Chronic Stable Angina: Class I – Aspirin 75-325 mg daily should be used routinely in all patients with acute and chronic ischemic heart disease with or without manifest symptoms in the absence of contraindications. Class IIa – Clopidogrel is recommended when aspirin is absolutely contraindicated. Class III – Dipyridamole. Because even the usual oral doses of dipyridamole can enhance exercise-induced myocardial ischemia in patients with stable angina, it should not be used as an antiplatelet agent. (ACC/AHA/ACP-ASIM)

Unstable Angina and Non-ST-Segment Elevation Myocardial Infarction: Class I – Aspirin 75 to 325 mg/dl in the absence of contraindications. Class I – Clopidogrel 75 qd for patients with a contraindication to ASA. (ACC/AHA)

Acute Myocardial Infarction (AMI): Class I – A dose of aspirin, 160 to 325 mg, should be given on day one of AMI and continued indefinitely on a daily basis thereafter. Trials suggest long-term use of aspirin in the postinfarction patient in a dose as low as 75 mg per day can be effective, with the likelihood that side effects can be reduced. Class IIb – Other antiplatelet agents such as dipyridamole, ticlopidine or clopidogrel may be substituted if true aspirin allergy is present or if the patient is unresponsive to aspirin. (ACC/AHA)

Coronary Artery Bypass Graft Surgery: Aspirin is the drug of choice for prophylaxis against early saphenous graft thrombotic closure and should be considered a standard of care for the first postoperative year. In general, patients are continued on aspirin indefinitely, given its benefit in the secondary prevention

of AMI. Ticlopidine is efficacious but offers no advantage over aspirin except as an alternative in the truly aspirin-allergic patient. Clopidogrel offers the potential of fewer side effects compared with ticlopidine as an alternative to aspirin for platelet inhibition. Indobufen appears to be as effective as aspirin for saphenous graft patency over the first postoperative year but with fewer gastrointestinal side effects. Current evidence suggests that dipyridamole adds nothing to the aspirin effect for saphenous graft patency. (ACC/AHA)

#### A GPRO CAD-2: Coronary Artery Disease (CAD): Drug Therapy for Lowering LDL-Cholesterol

#### DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed a lipidlowering therapy (based on current ACC/AHA guidelines)

#### NUMERATOR:

Patients who were prescribed lipid-lowering therapy

#### **DENOMINATOR:**

All patients aged 18 years and older with CAD

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient was not prescribed lipid-lowering therapy)

- Documentation of medical reason(s) for not prescribing lipid-lowering therapy
- Documentation of patient reason(s) for not prescribing lipid-lowering therapy
- Documentation of system reason(s) for not prescribing lipid-lowering therapy

#### RATIONALE:

Studies have demonstrated that active treatment with lipid-lowering therapy is associated with stabilization and regression of coronary atherosclerotic plaques and decreased incidence of clinical events. Recent clinical trials have further documented that LDL-lowering agents can decrease the risk of adverse ischemic events in patients with established CAD.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

The LDL-C treatment goal is <100 mg/dl. Persons with established coronary heart disease (CHD) who have a baseline LDL-C 130 mg/dl should be started on a cholesterol-lowering drug simultaneously with therapeutic lifestyle changes and control of nonlipid risk factors (National Cholesterol Education Program (NCEP).

▲ GPRO CAD-3: Coronary Artery Disease (CAD): Beta-Blocker Therapy for CAD Patients with Prior Myocardial Infarction (MI)

#### DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy

#### NUMERATOR:

Patients who were prescribed beta-blocker therapy

#### **DENOMINATOR:**

Patients aged 18 years and older with a diagnosis of coronary artery disease who also have prior myocardial infarction (MI) at any time

## **EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient was not prescribed beta-blocker therapy)

- Documentation of medical reason(s) for not prescribing beta-blocker therapy
- Documentation of patient reason(s) for not prescribing beta-blocker therapy
- Documentation of system reason(s) for not prescribing beta-blocker therapy

#### RATIONALE:

In the absence of contraindications, beta-blocker therapy has been shown to reduce the risk of a recurrent MI and decrease mortality for those patients with a prior MI.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Chronic Stable Angina: Class I – Beta-blockers as initial therapy in the absence of contraindications in patients with prior MI. Class I – Beta-blockers as initial therapy in the absence of contraindications in patients without prior MI. (ACC/AHA/ACP-ASIM)

Unstable Angina and Non-ST-Segment Elevation Myocardial Infarction: Class I – Drugs required in the hospital to control ischemia should be continued after hospital discharge in patients who do not undergo coronary revascularization, patients with unsuccessful revascularization, or patients with recurrent symptoms after revascularization. Upward or downward titration of the doses may be required. Class I – Beta-blockers in the absence of contraindications. (ACC/AHA)

Acute Myocardial Infarction: Class I – All but low-risk patients without a clear contraindication to ß-adrenoceptor blocker therapy. Treatment should begin within a few days of the event (if not initiated acutely) and continue indefinitely. Class IIa – Low-risk patients without a clear contraindication to ß-adrenoceptor blocker therapy. Survivors of non-ST-elevation MI. Class IIb – Patients with moderate or severe LV failure or other relative contraindications to ß-adrenoceptor blocker therapy, provided they can be monitored closely. (ACC/AHA)

Although no study has determined if long-term ß-adrenoceptor blocker therapy should be administered to survivors of MI who subsequently have satisfactorily undergone revascularization, there is no reason to believe that these agents act differently in coronary patients who have undergone revascularization. (ACC/AHA)

▲ GPRO CAD-7: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Patients with CAD and Diabetes and/or Left Ventricular Systolic Dysfunction (LVSD)

#### **DESCRIPTION:**

Percentage of patients aged 18 years and older with a diagnosis of CAD who also have diabetes mellitus and/or LVSD (LVEF < 40%) who were prescribed ACE inhibitor or ARB therapy

#### NUMERATOR:

Patients who were prescribed ACE inhibitor or ARB therapy

#### DENOMINATOR:

All patients aged 18 years and older with a diagnosis of CAD who also have a diagnosis of LVSD (LVEF < 40%)

OR

All patients aged 18 years and older with a diagnosis of CAD who also have a diagnosis of diabetes

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient was not prescribed ACE or ARB therapy)

- Documentation of medical reason(s) for not prescribing ACE or ARB therapy
- Documentation of patient reason(s) for not prescribing ACE or ARB therapy
- Documentation of system reason(s) for not prescribing ACE or ARB therapy

#### RATIONALE:

In the absence of contraindications, ACE inhibitors or ARBs are recommended for patients with coronary artery disease; especially those with diabetes and /or left ventricular systolic dysfunction. ACE inhibitors and ARBs have shown to decrease morbidity and mortality, including significant reductions in the occurrence of myocardial infarction, stroke, and diabetic complications.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

ACE inhibitor use is recommended in all patients with CAD who also have diabetes and/or left ventricular systolic dysfunction. (ACC/AHA)

ACE inhibitor use is also recommended in patients with CAD or other vascular disease. (ACC/AHA)

In ST elevation myocardial infarction (STEMI) patients who tolerate ACE inhibitors, an angiotensin receptor blocker (ARB) can be useful as an alternative to ACE inhibitors in the long-term management of STEMI patients, provided there are either clinical or radiological signs of heart failure or LVEF less than 0.40. (ACC/AHA)

#### GPRO HTN-1: Hypertension (HTN): Blood Pressure Measurement

#### **DESCRIPTION:**

Percentage of patient visits with blood pressure measurement recorded among all patient visits for patients aged  $\geq$  18 years with diagnosed hypertension

#### NUMERATOR:

Patient visits with blood pressure measurement recorded

#### **DENOMINATOR:**

All patient visits for patients aged  $\geq$  18 years with hypertension

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### RATIONALE:

Data from the National Health and Nutrition Examination Survey (NHANES) have indicated that 50 million or more Americans have high blood pressure (BP) warranting some form of treatment. Worldwide prevalence estimates for hypertension may be as much as 1 billion individuals, and approximately 7.1 million deaths per year may be attributable to hypertension. The World Health Organization reports that suboptimal BP (>115 mm Hg SBP) is responsible for 62% of cerebrovascular disease and 49% of ischemic heart disease, with little variation by sex. In addition, suboptimal blood pressure is the number one attributable risk for death throughout the world. (JNC 7: Complete Report)

Hypertension is an increasingly important medical and public health issue. The prevalence of hypertension increases with advancing age to the point where more than half of people aged 60 to 69 years old and approximately three-fourths of those aged 70 years and older are affected. The age-related rise in SBP is primarily responsible for an increase in both incidence and prevalence of hypertension with increasing age. (JNC 7: Complete Report)

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Obtaining proper blood pressure (BP) measurements at each health care encounter is recommended for hypertension detection. Repeated BP measurements ( $\geq 2 \text{ per patient visit}$ ) will determine if initial elevations persist and require prompt attention (Level 1 Recommendation, Level-C Evidence)

Classification of adult BP (including stages 1-3 of hypertension) is useful for making treatment decisions and is based on the average of  $\geq$  2 readings taken at each of 2 or more visits after an initial screening.

Hypertension is defined as systolic BP of 140 mm Hg or greater, diastolic BP of 90 mm Hg or greater or taking antihypertensive medication.

#### GPRO HTN-2: Hypertension (HTN): Blood Pressure Control

#### **DESCRIPTION:**

Percentage of patients with last BP < 140/90 mmHg

#### NUMERATOR:

Patients with last systolic blood pressure measurement < 140 mmHg and a diastolic blood pressure < 90 mmHg

#### DENOMINATOR:

All patients with HTN ≥ 18 years of age who had a blood pressure measurement during the last office visit

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION** (exclusion only applied if last blood pressure  $\geq$  140/90)

• Documentation of medical reason(s) for not recording a blood pressure measurement (diagnosis for ESRD and pregnancy are the only acceptable exclusions)

#### RATIONALE:

Hypertension is a very significant health issue in the United States. Fifty million or more Americans have high blood pressure that warrants treatment, according to the NHANES survey (JNC-7, 2003). The USPSTF recommends that clinicians screen adults aged 18 and older for high blood pressure (USPSTF, 2007).

The most frequent and serious complications of uncontrolled hypertension include coronary heart disease, congestive heart failure, stroke, ruptured aortic aneurysm, renal disease, and retinopathy. The increased risks of hypertension are present in individuals ranging from 40 to 89 years of age. For every 20 mmHg systolic or 10 mmHg diastolic increase in BP, there is a doubling of mortality from both IHD and stroke (JNC-7, 2003).

#### **CLINICAL RECOMMENDATION STATEMENTS:**

The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older.

JNC-7: Treating SBP and DBP to targets that are <140/90 mmHg is associated with a decrease in CVD complications.

#### GPRO HTN-3: Hypertension (HTN): Plan of Care

#### **DESCRIPTION:**

Percentage of patient visits for patients aged 18 years and older with a diagnosis of HTN with either systolic blood pressure  $\geq$  140 mmHg or diastolic blood pressure  $\geq$  90 mmHg with documented plan of care for hypertension

#### NUMERATOR:

Patient visits with a documented plan of care for hypertension

#### Definition:

**Plan of Care** - Plan of Care should include one or more of the following: Recheck blood pressure at specified future date, initiate or alter pharmacologic therapy, initiate or alter non-pharmacologic therapy

#### **DENOMINATOR:**

All visits for patients aged 18 years and older with a diagnosis of HTN with either systolic blood pressure  $\geq$  140 mmHg or diastolic blood pressure  $\geq$  90 mmHg

#### THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

#### RATIONALE:

Effective management of blood pressure in patients with hypertension can help prevent cardiovascular events, including myocardial infarction, stroke, and the development of heart failure.

Reference: National Institutes of Health, National Heart, Lung, and Blood Institute, National High Blood Pressure Education Program. The seventh report of the Joint National Committee on Prevention, Detection, and Treatment of High Blood Pressure. NIH Publication No. 04-5230. September 2004.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Nonpharmacological therapy is recommended and may include weight reduction, decreased sodium and alcohol intake and exercise.

Selection of pharmacological therapy should be based on the presence of comorbidities, severity of hypertension, presence of risk factors, and target organ damage.

Frequent follow-up visits are recommended.

After initiation of the initial therapy, a follow-up visit is recommended within 1-2 months, to assess hypertension control, patient compliance to treatment, and adverse effects. (Level 1Recommendation, Level-C Evidence)

## Preventive Care Measure 2010 Physician Quality Reporting Initiative Narrative Measure Specification for GPRO USE ONLY

#### GPRO Prev-5: Preventive Care and Screening: Screening Mammography

#### **DESCRIPTION:**

Percentage of women aged 40 through 69 years who had a mammogram to screen for breast cancer within 24 months

#### NUMERATOR:

Patients who had a mammogram at least once within 24 months

#### DENOMINATOR:

All female patients aged 40 through 69 years

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusion only applied if mammogram not performed within 24 months)

• Documentation of medical reason(s) for not performing a mammogram within 24 months (i.e., women who had a bilateral mastectomy or two unilateral mastectomies)

#### RATIONALE:

Breast cancer ranks as the second leading cause of death in women. For women 40 to 49 years of age mammography can reduce mortality by 17 percent. (AMA, 2003)

#### **CLINICAL RECOMMENDATION STATEMENT:**

The U.S. Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1-2 years for women aged 40 and older. (USPSTF, 2002)

- The USPSTF found fair evidence that mammography screening every 12-33 months significantly reduces mortality from breast cancer. Evidence is strongest for women aged 50-69, the age group generally included in screening trials. (USPSTF, 2002)
- For women aged 40-49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the absolute benefit of mammography is smaller, than it is for older women. Most, but not all, studies indicate a mortality benefit for women undergoing mammography at ages 40-49, but the delay in observed benefit in women younger than 50 makes it difficult to determine the incremental benefit of beginning screening at age 40 rather than at age 50. (USPSTF, 2002)
- The absolute benefit is smaller because the incidence of breast cancer is lower among women in their 40s than it is among older women. (USPSTF, 2002)

The USPSTF concluded that the evidence is also generalizable to women aged 70 and older (who face a higher absolute risk for breast cancer) if their life expectancy is not compromised by comorbid disease. The absolute probability of benefits of regular mammography increases along a continuum with age, whereas the likelihood of harms from screening (false-positive results and unnecessary anxiety, biopsies, and cost) diminishes from ages 40-70. The balance of benefits and potential harms, therefore, grows more favorable as women age. The precise age at which the potential benefits of mammography justify the possible harms is a subjective choice. (USPSTF, 2002)

American Cancer Society: Yearly Mammograms starting at age 40 and continuing for as long as a woman is in good health. (Smith, 2003)

American College of Preventative Medicine (ACPM):

- Low-risk women (no family history, familial cancer syndrome, or prior cancer). There is inadequate evidence for or against mammography screening of women under the age of 50. Women between the ages of 50-69 should have annual or biennial, high-quality, two-view mammography. Women aged 70 and older should continue undergoing mammography screening provided their health status permits breast cancer treatment. (Ferrini, 1996)
- Higher-risk women: Women with a family history of pre-menopausal breast cancer in a first-degree relative or those with a history of breast and/or gynecologic cancer may warrant more aggressive screening. Women with these histories often begin screening at an earlier age, although there is no direct evidence of effectiveness to support this practice. The future availability of genetic screening may define new recommendations for screening high-risk women. (Ferrini, 1996)

The American Medical Association (AMA), the American College of Obstetricians and Gynecologists (ACOG), and the American College of Radiology (ACR), all support screening with mammography and CBE beginning at age 40. (AMA, 1999; ACOG, 2000; Feig, 1998)

The Canadian Task Force on Preventive Health Care (CTFPHC), and the American Academy of Family Physicians (AAFP), recommends beginning mammography for average-risk women at age 50. (Canadian Task Force on the Periodic Health Examination, 1999; AAFP, 2005)

AAFP recommends that mammography in high-risk women begin at age 40, and recommends that all women aged 40-49 be counseled about the risks and benefits of mammography before making decisions about screening. (AAFP, 2005)

## Preventive Care Measure 2010 Physician Quality Reporting Initiative Narrative Measure Specification for GPRO USE ONLY

#### GPRO Prev-6: Preventive Care and Screening: Colorectal Cancer Screening

#### **DESCRIPTION:**

Percentage of patients aged 50 through 75 years who received the appropriate colorectal cancer screening

#### NUMERATOR:

Patients who had at least one or more screenings for colorectal cancer during or prior to the reporting period

#### DENOMINATOR:

All patients aged 50 through 75 years

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusion only applied if colorectal cancer screening not performed)

• Documentation of medical reason(s) for not performing colorectal cancer screening

#### **RATIONALE:**

Colorectal cancer is the second leading cause of cancer-related death in the United States. There were an estimated 135,400 new cases and 56,700 deaths from the disease during 2001. Colorectal cancer (CRC) places significant economic burden on the society as well with treatment costs over \$6.5 billion per year and, among malignancies, is second only to breast cancer at \$6.6 billion per year (Schrag, 1999).

Colorectal cancer screening can detect pre-malignant polyps and early stage cancers. Unlike other screening tests that only detect disease, colorectal cancer screening can guide removal of pre-malignant polyps, which in theory can prevent development of colon cancer. Three tests are currently recommended for screening: fecal occult blood testing (FOBT), flexible sigmoidoscopy, and colonoscopy.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

During the past decade, compelling evidence has accumulated that systematic screening of the population can reduce mortality from colorectal cancer. Three randomized, controlled trials demonstrated that fecal occult blood testing (FOBT), followed by complete diagnostic evaluation of the colon for a positive test, reduced colorectal cancer mortality (Hardcastle et al., 1996; Mandel & Oken, 1998; Kronborg; 1996). One of these randomized trials (Mandel et al., 1993) compared annual FOBT screening to biennial FOBT screening, and found that annual screening resulted in greater reduction in colorectal cancer mortality. Two case control studies have provided evidence that sigmoidoscopy reduces colorectal cancer mortality (Selby et al., 1992; Newcomb et al., 1992). Approximately 75% of all colorectal cancers arise sporadically (Stephenson et al., 1991). Part of the effectiveness of colorectal cancer screening is mediated by the removal of polyps in a population can reduce the incidence of colorectal cancer (Winawer, 1993). Colorectal screening may also lower mortality by allowing detection of cancer at earlier stages, when treatment is more effective (Kavanaugh, 1998).

The U.S. Preventive Services Task Force (USPSTF) published an updated recommendation for colorectal cancer screening in 2008. The guideline strongly recommends that clinicians screen men and women ages 50 to 75 years of age for colorectal cancer (A recommendation). The USPSTF recommends not screening

adults age 85 and older due to possible harms (D recommendation). The appropriateness of colorectal cancer screening for men and women aged 76 to 85 years old should be considered on an individual basis (C recommendation). While the approved modalities vary for patients 50 to 75 years old, the USPSTF found there is insufficient evidence to assess the benefits and harms of computed tomographic colonography (CTC) and fecal DNA (fDNA) testing as screening modalities for colorectal cancer for all patients (I statement).

## Preventive Care Measure 2010 Physician Quality Reporting Initiative Narrative Measure Specification for GPRO USE ONLY

▲ GPRO Prev-7: Preventive Care and Screening: Influenza Immunization for Patients  $\ge$  50 Years Old

#### DESCRIPTION:

Percentage of patients aged 50 years and older who received an influenza immunization during the flu season (September through February)

#### NUMERATOR:

Patients who received an influenza immunization during the flu season (September through February)

#### DENOMINATOR:

All patients aged 50 years and older

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusions only applied if patient did not receive influenza immunization during the flu season)

- Documentation of medical reason(s) for not receiving an influenza immunization during the flu season
- Documentation of patient reason(s) for not receiving an influenza immunization during the flu season
- Documentation of system reason(s) for not receiving an influenza immunization during the flu season

#### RATIONALE:

Influenza vaccination has shown to decrease hospitalizations for influenza, especially for those with risk factors, however annual influenza vaccination rates remain low.

#### **CLINICAL RECOMMENDATION STATEMENTS:**

Annual influenza immunization is recommended for all groups who are at increased risk for complications from influenza including persons aged  $\geq$  50 years. (CDC, USPSTF)

## Preventive Care Measure 2010 Physician Quality Reporting Initiative Narrative Measure Specification for GPRO USE ONLY

◆ GPRO Prev-8: Preventive Care and Screening: Pneumonia Vaccination for Patients 65 Years and Older

#### DESCRIPTION:

Percentage of patients aged 65 years and older who have ever received a pneumococcal vaccine

#### NUMERATOR:

Patients who have ever received a pneumococcal vaccination

#### DENOMINATOR:

All patients 65 years and older

**EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:** (exclusion only applied if patient did not ever receive a pneumococcal immunization)

• Documentation of medical reason(s) for not ever receiving pneumococcal vaccination

#### RATIONALE:

The elderly have a much higher mortality from community-acquired pneumonia due to increased risk factors such as comorbidities, an increase in the number of medications taken and weaknesses or disease of lung tissue. Pneumonia accounts for an estimated 20 percent of nosocomial infections among the elderly, second only to urinary tract infections. The disease burden is large for older adults and the potential for prevention is high. (Ely, E., 1997)

Drugs such as penicillin were once effective in treating these infections; but the disease has become more resistant, making treatment of pneumococcal infections more difficult. This makes prevention of the disease through vaccination even more important. (CDC. National Immunization Program—*Pneumococcal Disease.*, 2005)

#### **CLINICAL RECOMMENDATION STATEMENTS:**

The U.S. Preventive Services Task Force's *Guide to Clinical Preventive Services* recommends pneumococcal vaccine for all immunocompetent individuals who are 65 and older or otherwise at increased risk for pneumococcal disease. Routine revaccination is not recommended, but may be appropriate in immunocompetent individuals at high risk for morbidity and mortality from pneumococcal disease (e.g., persons  $\geq$  75 years of age or with severe chronic disease) who were vaccinated more than five years previously. Medicare Part B fully covers the cost of the vaccine and its administration every five years. (United States Preventive Services Task Force, 1998) Pneumococcal infection is a common cause of illness and death in the elderly and persons with certain underlying conditions. In 1998, an estimated 3,400 adults aged  $\geq$  65 years died as a result of invasive pneumococcal disease. Pneumococcal infection accounts for more deaths than any other vaccine-preventable bacterial disease. (CDC, 2002; Pneumococcal Pneumonia, NIAID Fact Sheet, December 2004.)

One of the *Healthy People 2010* objectives is to increase pneumococcal immunization levels for the noninstitutionalized, high-risk populations to at least 90 percent (objective no. 14.29). While the percent of persons 65 years and older receiving the pneumococcal vaccine has increased, it still remains considerably below the *Health People 2010* objective. According to the National Health Interview Survey (NHIS), which is used to track performance on year 2010 objectives, in 1998 only 46 percent of adults age 65 years and older report receiving the vaccine. The figure was 45 percent based on the 1997 Behavioral Risk Factor Surveillance System (BRFSS) survey. (National Center for Health Statistics., 2005; CDC, 1997)

A particular strength of this measure is that it provides an opportunity to compare performance against national, state and/or regional benchmarks, which are collected through nationally organized and administered surveys.

At the physician practice level where a patient survey may not be feasible, data collection on pneumonia vaccination status through chart abstraction is a viable option.

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