Measure #244: Hypertension: Blood Pressure Management

2013 PQRS OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of hypertension seen within a 12 month period with a blood pressure < 140/90 mmHg OR patients with a blood pressure ≥ 140/90 mmHg and prescribed two or more anti-hypertensive medications during the most recent office visit

INSTRUCTIONS:
This measure is to be reported a minimum of once per reporting period for patients with a diagnosis of hypertension seen during the reporting period. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Reporting via Registry:
ICD-9-CM diagnosis codes, CPT codes, and patient demographics are used to identify patients who are included in the measure’s denominator. The numerator options as described in the quality-data codes are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All patients aged 18 years and older with a diagnosis of hypertension seen within a 12 month period

Denominator Criteria (Eligible Cases):
Patient aged ≥ 18 years on date of encounter
AND
Diagnosis for Hypertension (ICD-9-CM): 401.0, 401.1, 401.9, 402.00, 402.01, 402.10, 402.11, 402.90, 402.91, 403.00, 403.01, 403.10, 403.11, 403.90, 403.91, 404.00, 404.01, 404.02, 404.03, 404.10, 404.11, 404.12, 404.13, 404.90, 404.91, 404.92, 404.93, 405.01, 405.09, 405.11, 405.19, 405.91, 405.99
AND
Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

NUMERATOR:
Patients with a blood pressure < 140/90 mmHg OR patients with a blood pressure ≥ 140/90 mmHg and prescribed two or more anti-hypertensive medications during the most recent office visit

BP value used for measure calculation:
- must be specified in medical record if > 1 value (systolic/diastolic) recorded, and
- must be value upon which treatment decision was based, and
- may be obtained by measurement during office visit or review of a home blood pressure log, OR of a 24 hour ambulatory blood pressure monitor, but the value on which the treatment decision is being made
and which might represent the average of more than 1, reading must be documented as such in the medical record.

**Numerator Instructions:** Report denominator eligible patients’ blood pressure as separate (systolic and diastolic) values for measure. For patients who’s systolic blood pressure ≥ 140 OR a diastolic blood pressure ≥ 90 mmHg and were prescribed two or more anti-hypertensive medications during the most recent office visit, then also report CPT II 4145F. All denominator eligible patients without a measurement of blood pressure would be reported as performance not met.

**Definition:**
**Prescribed:** May include prescriptions given to the patient for 2 or more anti-hypertensive medications at most recent office visit OR patient already taking 2 or more anti-hypertensive medications as documented in the current medication list (each anti-hypertensive component in a combination medication should be counted individually).

**Numerator Options:**
Patients with a blood pressure < 140/90 mmHg OR patients with a blood pressure ≥ 140/90 mmHg and prescribed 2 or more anti-hypertensive medications during the most recent office visit

**Systolic codes (Select one (1) code from this section):**
- Most recent office visit systolic blood pressure, < 130 mmHg (G8790)
- OR
- Most recent office visit systolic blood pressure, 130 to 139 mmHg (G8791)
- OR
- Most recent office visit systolic blood pressure, ≥ 140 mmHg (G8792)

**AND**
**Diastolic codes (Select one (1) code from this section):**
- Most recent office visit diastolic blood pressure, < 80 mmHg (G8793)
- OR
- Most recent office visit diastolic blood pressure, 80 - 89 mmHg (G8794)
- OR
- Most recent office visit diastolic blood pressure, ≥ 90 mmHg (G8795)

**AND**
If patient has a systolic blood pressure ≥ 140 mmHg OR a diastolic blood pressure ≥ 90 mmHg, then ALSO REPORT CPT II 4145F

- Two or more anti-hypertensive agents prescribed or currently being taken (CPT II 4145F)
- OR
- Documentation of medical reason(s) for not prescribing or patient not currently taking two or more anti-hypertensive agents (eg, allergy, intolerance, postural hypotension, other medical reasons) (4145F with 1P)
- OR
- Documentation of patient reason(s) for not prescribing or patient not currently taking two or more anti-hypertensive agents (eg, patient declined, other patient reasons) (4145F with 2P)
- OR
- Documentation of system reason(s) for not prescribing or patient not currently taking two or more anti-hypertensive agents (eg, financial reasons, other system reasons) (4145F with 3P)

OR
Patients with a blood pressure ≥ 140/90 mmHg AND not prescribed two or more anti-hypertensive medications during the most recent office visit
Two or more anti-hypertensive agents were not prescribed or are not currently being taken, reason not otherwise specified (4145F with BP)

OR

Blood pressure measurement not documented, reason not given (G8796)

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.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Classification of blood pressure for adults (JNC VII, 2004D):

<table>
<thead>
<tr>
<th>Blood Pressure Classification</th>
<th>SBP mm Hg</th>
<th>DBP mm Hg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>&lt; 120</td>
<td>and &lt; 80</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120-139</td>
<td>or 80-89</td>
</tr>
<tr>
<td>Stage 1 Hypertension</td>
<td>140-159</td>
<td>or 90-99</td>
</tr>
<tr>
<td>Stage 2 Hypertension</td>
<td>≥ 160</td>
<td>or ≥ 100</td>
</tr>
</tbody>
</table>

Treating systolic blood pressure (SBP) and diastolic blood pressure (DBP) to targets that are < 140/90 mm Hg is associated with a decrease in cardiovascular disease (CVD) risk complications. In patients with hypertension and diabetes or renal disease, the blood pressure (BP) goal is < 130/80 mm Hg. (JNC VII, 2004)

Therapy begins with lifestyle modification, and if BP goal is not achieved, thiazide-type diuretics should be used as initial therapy for most patients, either alone or in combination with one of the other classes (angiotensin converting enzyme inhibitors (ACE-I), angiotensin II receptor blockers (ARB), beta-blockers (BB), or calcium channel blockers (CCB) that have also been shown to reduce one or more hypertensive complications in randomized-controlled outcome trials. Selection of one of these other agents as initial therapy is recommended when a diuretic cannot be used or a competing indication is present that requires use of a specific drug...If the initial drug selected is not tolerated or contraindicated, and then a drug from one of the other classes proven to reduce cardiovascular events should be substituted. (JNC VII, 2004)

Compelling indications for use of individual drug classes for treatment of hypertension (JNC VII, 2004):

Stable Angina and Silent Ischemia
Unless contraindicated, pharmacologic therapy should be initiated with a BB. BBs will lower BP; reduce symptoms of angina; improve mortality; and reduce cardiac output, heart rate, and atrioventricular (AV) conduction. The reduced inotropy and heart rate decrease myocardial oxygen demand.

If angina and BP are not controlled by BB therapy alone, or if BBs are contraindicated, as in the presence of severe reactive airway disease, severe peripheral arterial disease, high-degree AV block, or the sick sinus syndrome, either long-acting dihydropyridine or nondihydropyridine CCBs may be used. CCBs decrease total peripheral resistance, which leads to reduction in BP and wall tension. CCBs also decrease coronary resistance and enhance post-stenotic coronary perfusion. Nondihydropyridine CCBs can decrease heart rate; when in combination with a BB however, they may cause severe bradycardia or high degrees of heart block. Therefore, long-acting dihydropyridine CCBs are preferred for combination therapy with BBs. If angina or BP is still not controlled with this two-drug regimen, nitrates can be added, but these should be used with caution in patients taking phosphodiesterase-5 inhibitors such as
sildenafil. Short-acting dihydropyridine CCBs should not be used because of their potential to increase mortality, especially in the setting of acute myocardial infarction (MI).

**Heart Failure**
Heart failure (HF) is a “compelling indication” for the use of ACEI. Abundant evidence exists to justify their use with all stages of HF. In patients intolerant of ACEIs, ARBs may be used. BBs are also recommended for HF because of clinical studies demonstrating decreased morbidity and mortality, and improvement in HF symptoms.

**Diabetes**
Thiazide-type diuretics are beneficial in diabetics, either alone or as part of a combined regimen.

Therapy with an ACEI also is an important component of most regimens to control BP in diabetic patients. ACEIs may be used alone for BP lowering but are much more effective when combined with a thiazide–type diuretic or other antihypertensive drugs.

BBs, especially beta 1-selective agents, are beneficial to diabetics as part of multidrug therapy, but their value as mono-therapy is less clear. A BB is indicated in a diabetic with ischemic heart disease (IHD) but may be less effective in preventing stroke than an ARB as was found in the LIFE study. Although BBs can cause adverse effects on glucose homeostasis in diabetics, including worsening of insulin sensitivity and potential masking of the epinephrine-mediated symptoms of hypoglycemia, these problems are usually easily managed and are not absolute contraindication for BB use.

CCBs may be useful to diabetics, particularly as part of combination therapy to control BP.

**Chronic Kidney Disease**
The joint recommendation of the American Society of Nephrology and the National Kidney Foundation provide useful guidelines for the management of hypertensive patients with CKD. They recommend a goal BP for all CKD patients of < 130/80 mm Hg and the need for more than one antihypertensive drug to achieve this goal. The guidelines indicate that most patients with CKD should receive an ACEI or ARB in combination with a diuretic, and many will require a loop diuretic rather than a thiazide. In addition, if there is a conflict between the goals of slowing progression of CKD and cardiovascular (CV) risk reduction, individual decision making is recommended based on risk stratification.