CHRONIC KIDNEY DISEASE (CKD) MEASURES GROUP OVERVIEW

2014 PQRS OPTIONS FOR MEASURES GROUPS:

2014 PQRS MEASURES IN THE CHRONIC KIDNEY DISEASE (CKD) MEASURES GROUP:
#110. Preventive Care and Screening: Influenza Immunization
#121. Adult Kidney Disease: Laboratory Testing (Lipid Profile)
#122. Adult Kidney Disease: Blood Pressure Management
#123. Adult Kidney Disease: Patients On Erythropoiesis-Stimulating Agent (ESA) - Hemoglobin Level > 12.0 g/dL

INSTRUCTIONS FOR REPORTING:
- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.
  G8487: I intend to report the Chronic Kidney Disease (CKD) Measures Group
- Report the patient sample method:
  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2014 OR July 1 through December 31, 2014).
- Patient sample criteria for the CKD Measures Group are patients aged 18 years and older with a specific diagnosis of CKD accompanied by a specific patient encounter:
  - One of the following diagnosis codes indicating stage 4 or 5 chronic kidney disease:
    ICD-9-CM [for use 1/1/2014 – 9/30/2014]: 585.4, 585.5
    ICD-10-CM [for use 10/1/2014 – 12/31/2014]: N18.4, N18.5
    Note: The diagnosis code for stage 3 chronic kidney disease (583.3) is not included within the common denominator for reporting the CKD Measures Group
  - Accompanied by:
    One of the following patient encounter codes: 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
  - Report a numerator option on all applicable measures within the CKD Measures Group for each patient within the eligible professional’s patient sample. Report measures #122 and #123 once during the month the patient is included in the patient sample population. For these measures, subsequent months do not need to be reported.
  - Measure #122 only needs to be reported when the patient also has the following diagnosis code indicating proteinuria:
    ICD-9-CM [for use 1/1/2014 – 9/30/2014]: 791.0
    ICD-10-CM [for use 10/1/2014 - 12/31/2014]: R80.1 R80.8, R80.9
  - Instructions for qualifying numerator option reporting for each of the measures within the Chronic Kidney Disease (CKD) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.
Composite QDC G8495: All quality actions for the applicable measures in the CKD Measures Group have been performed for this patient

- This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.

- The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

<table>
<thead>
<tr>
<th>Measure</th>
<th>#110</th>
<th>#121</th>
<th>#122</th>
<th>#123*</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>G8482</td>
<td>G8725</td>
<td>G8476</td>
<td>4172F or G0910 &amp; 4171F</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure

- To report satisfactorily the CKD Measures Group requires all applicable measures for each patient within the eligible professional’s patient sample to be reported a minimum of once during the reporting period.

- Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2013-2014 influenza season OR between October and December for the 2014-2015 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate. Measure #110 need only be reported on patients 18 years and older.

- Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each measure within the measures group reported by the eligible professional. If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening or Therapy for Osteoporosis for Women Aged 65 Years and Older would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 and would be considered satisfactorily reporting. Performance exclusion quality-data codes are not counted in the performance denominator. If the eligible professional submits all performance exclusion quality-data codes, the performance rate would be 0/0 and would be considered satisfactorily reporting. When a lower rate indicates better performance, such as Measure #123, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

- NOTE: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures groups option.
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization

DESCRIPTION:
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

NUMERATOR:
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

Numerator Instructions:
- If reporting this measure between January 1, 2014 and March 31, 2014, G-code G8482 should be reported when the influenza immunization is ordered or administered to the patient during the months of August, September, October, November, and December of 2013 or January, February, and March of 2014 for the flu season ending March 31, 2014.
- If reporting this measure between October 1, 2014 and December 31, 2014, G-code G8482 should be reported when the influenza immunization is ordered or administered to the patient during the months of August, September, October, November, and December of 2014 for the flu season ending March 31, 2015.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2013-2014 flu season OR 2014-2015 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

Definition:
**Previous Receipt** - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

Numerator Options:
Influenza immunization administered or previously received (G8482) OR
Influenza immunization was not ordered or administered for reasons documented by clinician (e.g., patient allergy or other medical reason, patient declined or other patient reasons, or other system reasons) (G8483) OR
Influenza immunization ordered or recommended (to be given at alternate location or alternate provider); vaccine not available at time of visit (G0919) OR
Influenza immunization was not ordered or administered, reason not given (G8484)
**Measure #121 (NQF 1668): Adult Kidney Disease: Laboratory Testing (Lipid Profile)**

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of chronic kidney disease (CKD) (stage 3, 4 or 5, not receiving Renal Replacement Therapy [RRT]) who had a fasting lipid profile performed at least once within a 12-month period

**NUMERATOR:**
Patients who had a fasting lipid profile performed at least once within a 12-month period

**Definition:**
RRT (Renal Replacement Therapy) - For the purposes of this measure, RRT includes hemodialysis, peritoneal dialysis, and kidney transplantation.

**Numerator Options:**
- Fasting lipid profile performed (Triglycerides, LDL-C, HDL-C, and Total Cholesterol) (**G8725**)
- Clinician has documented reason for not performing fasting lipid profile (e.g., patient declined, other patient reasons) (**G8726**)
- Fasting lipid profile not performed, reason not given (**G8728**)

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**Table:**

<table>
<thead>
<tr>
<th>Numerator Options</th>
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</tr>
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<td>Fasting lipid profile performed (Triglycerides, LDL-C, HDL-C, and Total Cholesterol)</td>
<td><strong>G8725</strong></td>
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<tr>
<td>Clinician has documented reason for not performing fasting lipid profile (e.g., patient declined, other patient reasons)</td>
<td><strong>G8726</strong></td>
</tr>
<tr>
<td>Fasting lipid profile not performed, reason not given</td>
<td><strong>G8728</strong></td>
</tr>
</tbody>
</table>
**Measure #122: Adult Kidney Disease: Blood Pressure Management**

**DESCRIPTION:**
Percentage of patient visits for those patients aged 18 years and older with a diagnosis of chronic kidney disease (CKD) (stage 3, 4 or 5, not receiving Renal Replacement Therapy [RRT]) and proteinuria with a blood pressure < 130/80 mmHg OR ≥ 130/80 mmHg with a documented plan of care

**NUMERATOR:**
Patient visits with blood pressure < 130/80 mmHg OR ≥ 130/80 mmHg with a documented plan of care

**Numerator Instructions:** If multiple blood pressure measurements are taken at a single visit, use the most recent measurement taken at that visit.

**Definitions:**
- **Proteinuria** - > 300 mg of albumin in the urine per 24 hours OR albumin creatinine ratio (ACR) > 300 mcg/mg creatinine OR protein to creatinine ratio > 0.3 mg/mg creatinine.
- **Plan of Care** - A documented plan of care should include one or more of the following: recheck blood pressure within 90 days; initiate or alter pharmacologic therapy for blood pressure control; initiate or alter non-pharmacologic therapy (lifestyle changes) for blood pressure control; documented review of patient’s home blood pressure log which indicates that patient’s blood pressure is or is not well controlled.
- **RRT (Renal Replacement Therapy)** - For the purposes of this measure, RRT includes hemodialysis, peritoneal dialysis, and kidney transplantation.

**Numerator Options:**
- Most recent blood pressure has a systolic measurement of < 130 mmHg and a diastolic measurement of < 80 mmHg (G8476)

  OR

- Most recent blood pressure has a systolic measurement of ≥ 130 mmHg and/or a diastolic measurement of ≥ 80 mmHg (G8477)

  **AND**

  Elevated blood pressure plan of care documented (0513F)

  OR

- Blood pressure measurement not performed or documented, reason not given (G8478)

  OR

- No documentation of elevated blood pressure plan of care, reason not otherwise specified (0513F with 8P)

  **AND**

  Most recent blood pressure has a systolic measurement of ≥ 130 mmHg and/or a diastolic measurement of ≥ 80 mmHg (G8477)
Measure #123 (NQF 1666): Adult Kidney Disease: Patients On Erythropoiesis-Stimulating Agent (ESA) - Hemoglobin Level > 12.0 g/dL

DESCRIPTION:
Percentage of calendar months within a 12-month period during which a hemoglobin level is measured for patients aged 18 years and older with a diagnosis of advanced chronic kidney disease (CKD) (stage 4 or 5, not receiving Renal Replacement Therapy [RRT]) or End Stage Renal Disease (ESRD) (who are on hemodialysis or peritoneal dialysis) who are also receiving erythropoiesis-stimulating agent (ESA) therapy AND have a hemoglobin level > 12.0 g/dL

NUMERATOR:
Calendar months during which patients have a hemoglobin level > 12.0 g/dL

Numerator Instructions: The hemoglobin values used for this measure should be the most recent (last) hemoglobin value recorded for each calendar month.

Note: A lower calculated performance rate for this measure indicates better clinical care or control.

Definition:
RRT (Renal Replacement Therapy) - For the purposes of this measure, RRT includes hemodialysis, peritoneal dialysis, and kidney transplantation.

Numerator Options:
Most Recent Hemoglobin (Hgb) level > 12.0 g/dL (G0908)
AND
Patient receiving Erythropoiesis-Stimulating Agents (ESA) therapy (4171F)

OR
Hemoglobin level measurement not documented, reason not given (G0909)
AND
Patient receiving Erythropoiesis-Stimulating Agents (ESA) therapy (4171F)

OR
Patient not receiving Erythropoiesis-Stimulating Agents (ESA) therapy (4172F)

OR
Most Recent Hemoglobin Level ≤ 12.0 g/dL (G0910)
AND
Patient receiving Erythropoiesis-Stimulating Agents (ESA) therapy (4171F)
Measure #110 - Preventive Care and Screening: Influenza Immunization

RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

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

Routine annual influenza vaccination is recommended for all persons aged ≥ 6 months. To permit time for production of protective antibody levels, vaccination should optimally occur before onset of influenza activity in the community, and providers should offer vaccination as soon as vaccine is available. Vaccination also should continue to be offered throughout the influenza season. (CDC/ACIP, 2011)

Measure #121 - Adult Kidney Disease: Laboratory Testing (Lipid Profile)

RATIONALE:
The principal reason to evaluate dyslipidemias in patients with CKD is to detect abnormalities that may be treated to reduce the incidence of ACVD. A number of observational studies have reported that various dyslipidemias are associated with decreased kidney function in the general population and in patients with CKD. (KDOQI)

Many factors influence the prevalence of dyslipidemias in CKD. Changes in proteinuria, GFR, and treatment of CKD may alter lipoprotein levels. Therefore, it is prudent to evaluate dyslipidemias more often than is recommended in the general population. (KDOQI)

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines. Only selected portions of the clinical guidelines are quoted here; for more details, please refer to the full guideline.

All adults and adolescents with CKD should be evaluated for dyslipidemias. (Grade B) (KDOQI, 2003)

For adults and adolescents with CKD, the assessment of dyslipidemias should include a complete fasting lipid profile with total cholesterol, LDL, HDL, and triglycerides. (Grade B) (KDOQI, 2003)

If a patient has GFR ≤ 30 ml/min/1.73m², then s/he should be monitored for dyslipidemias; measurements should include triglycerides, LDL, HDL, and total cholesterol. (B) (RPA, 2002)

Measure #122 - Adult Kidney Disease: Blood Pressure Management

RATIONALE:
Accurate measurement in CKD is especially important, because hypertension is more common in CKD, and because JNC 7 identifies CKD as a "compelling indication" for more aggressive antihypertensive therapy because of the higher risk of CVD in CKD than in the general population. (KDOQI)

Target blood pressure in nondiabetic kidney disease should be < 130/80 mmHg. (KDOQI)

The requirement for proteinuria in the denominator for these measures is based on growing controversy regarding the appropriateness of prior recommendations for a BP < 130/80 and for the use of ACE inhibition/angiotensin receptor blockade in non-proteinuric kidney disease. (Chang et al, 2010 and Agarwal, 2011)
**CLINICAL RECOMMENDATION STATEMENTS:**

Only selected portions of the clinical guidelines are quoted here; for more details, please refer to the full guideline.

Blood pressure should be measured at each health encounter (Grade A). (KDOQI, 2004)

If a patient has GFR ≤ 30 ml/min/1.73m², then his/her blood pressure should be checked with every clinic visit (Grade A). (RPA, 2002)

If a patient has a GFR ≤ 30 ml/min/1.73m², and if blood pressure is determined to be elevated (systolic > 130 mmHg OR diastolic > 80 mmHg), then she/he should receive intensified antihypertensive therapy (Grade B). (RPA, 2002)

Patients with CKD should be considered in the “highest-risk” group for CVD for implementing recommendations for pharmacological therapy, irrespective of cause of CKD (Grade A). (KDOQI, 2004)

Target blood pressure for CVD risk reduction in CKD and diabetic/nondiabetic kidney disease should be < 130/80 mmHg (Grade B). (KDOQI, 2004)

All antihypertensive agents can be used to lower blood pressure in CKD. Multidrug regimens will be necessary in most patients with CKD to achieve therapeutic goals. Patients with specific causes of kidney disease and CVD will benefit from specific classes of agents. (KDOQI, 2004)

All classes of antihypertensive agents are effective in lowering blood pressure in CKD. Antihypertensive agents should be prescribed as follows, when possible: Preferred agents for CKD should be used first (Grade A); Diuretics should be included in the antihypertensive regimen in most patients (Grade A); Choose additional agents based on cardiovascular disease-specific indications to achieve therapeutic and preventive targets and to avoid side-effects and interactions (Grade B). (KDOQI, 2004)

Lifestyle modifications recommended for CVD risk reduction should be recommended as part of the treatment regimen. (Grade B). (KDOQI, 2004)

Elevated blood pressure must be confirmed on repeated visits before characterizing an individual as having hypertension. Blood pressure can be determined by resting blood pressure measurement in the health-care provider’s office (casual blood pressure [CBP]), self-measured blood pressure (SMBP), or ambulatory blood pressure monitoring (ABPM). Blood pressure should be measured according to the recommendations for indirect measurement of arterial blood pressure of the American Heart Association and Seventh Report of the Joint National Committee on the Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC 7) (Grade A); Patients should be taught to measure and record their blood pressure, whenever possible (Grade C). (KDOQI, 2004)

High blood pressure is both a cause and a complication of chronic kidney disease. As a complication, high blood pressure may develop early during the course of chronic kidney disease and is associated with adverse outcomes—in particular, faster loss of kidney function and development of cardiovascular disease.

- Blood pressure should be closely monitored in all patients with chronic kidney disease.
- Treatment of high blood pressure in chronic kidney disease should include specification of target blood pressure levels, nonpharmacologic therapy, and specific antihypertensive agents for the prevention of progression of kidney disease (Guideline 13) and development of cardiovascular disease (Guideline 15). (KDOQI, 2002)
- Interventions to slow the progression of kidney disease should be considered in all patients with chronic kidney disease.
- Interventions that have been proven to be effective include:
  1. Strict glucose control in diabetes;
  2. Strict blood pressure control;
  3. Angiotensin-converting enzyme inhibition or angiotensin-2 receptor blockade. (KDOQI, 2002)
Measure #123 - Adult Kidney Disease: Patients On Erythropoiesis-Stimulating Agent (ESA) – Hemoglobin Level > 12.0g/dL

RATIONALE:
Anemia is a common complication of chronic kidney disease (CKD). The prevalence of anemia varies with the degree of renal impairment in predialysis patients with CKD, but once end-stage kidney failure occurs, all patients are eventually affected. Anemia develops once renal function decreases to < 50% because of a deficiency in endogenous erythropoietin (EPO) production by the kidney, decreased red cell survival, blood losses, and increased red blood cell destruction once the patient begins dialysis treatment, particularly hemodialysis. Anemia reduces physical capacity, well-being, neurocognitive function, and energy level and worsens quality of life both in predialysis and dialysis patients. Anemia also induces adaptive cardiovascular mechanisms to maintain tissue oxygen supply. This leads to left ventricular hypertrophy, left ventricular dilation, and myocardial ischemia, which are risk factors for cardiovascular disease and death. It is plausible that reversing anemia may reduce this risk. (Strippoli et al, 2004)

In clinical practice for CKD patients, determination of the frequency and size of sequential ESA dose adjustments in relationship to a threshold Hgb or target Hgb level; and an interpretation of previous therapeutic trends and responsiveness to ESA therapy is critical. (KDOQI, 2007)

Improvement in quality of life and avoidance of transfusion are treatment benefits from determining the appropriate hemoglobin level, and there is potential for harm when aiming for high Hgb targets. The potential harms are based on evidence from RCTs suggesting that assignment to Hgb targets greater than 13.0 g/dL may increase the risk of life threatening adverse events. (KDOQI, 2007)

CLINICAL RECOMMENDATION STATEMENTS:
Only selected portions of the clinical guidelines are quoted here; for more details, please refer to the full guideline.

In the opinion of the [KDOQI] Work Group, in dialysis and nondialysis patients with CKD receiving ESA therapy, the selected Hgb target should generally be in the range of 11.0 to 12.0 g/dL. (Clinical Practice RECOMMENDATION) (KDOQI, 2007)

In dialysis and nondialysis patient with CKD receiving ESA therapy, the Hgb target should not be greater than 13.0 g/dL. (Clinical Practice GUIDELINE—MODERATELY STRONG EVIDENCE) (KDOQI, 2007)