Client: HMSA: PQSR 2007

Measure Title: CHRONIC KIDNEY DISEASE: LIPID TESTS

Disease State: Chronic Kidney Disease

**Indicator Classification**
- Disease Management

**Strength of Recommendation (S):** C

**Clinical Intent:** To ensure that all eligible members identified as having chronic kidney disease receive a lipid test at a clinically appropriate frequency.

**Physician Specialties:** Refer to PQSR 2007 Specialty Matrix

**Clinical Rationale - Disease Burden:**
- Cardiovascular disease accounts for more than 50% of end-stage renal disease (ESRD) deaths.[1]
- Approximately 20 million American adults have kidney disease.[3] Of these people, it is estimated that more than 8 million have Stage 3 chronic kidney disease.[3]
- The number of patients enrolled in the end-stage renal disease (ESRD) Medicare-funded program has increased from approximately 10,000 beneficiaries in 1973 to 86,354 in 1983, and to 431,284 as of December 31, 2002.[3]

**Reason for Indicated Intervention or Treatment:**
- Chronic renal dysfunction alone is an independent risk factor for the development of coronary artery disease.[6] It is also associated with an adverse effect on prognosis from cardiovascular disease, and an increased likelihood of severe coronary heart disease (CHD).[7-11]
- Abnormal lipid metabolism is common in patients with renal disease.[2, 5, 12, 13]

**Evidence supporting Intervention or Treatment:**
- Many well designed trials have established that for patients with diagnosed with lipid disorders, treatment is highly effective.
  - Several large randomized controlled trials have shown that simvastatin or pravastatin use in patients with a history of cardiovascular disease reduces the risk of recurrent events and mortality, whether the patients have elevated [14, 15], normal or slightly elevated [16-22] cholesterol levels.
  - Large scale meta-analyses focusing on studies in which cholesterol medications were used have shown that when used as secondary prevention, lipid-lowering therapy is associated with a decreased risk of coronary events, CHD mortality and all-cause mortality.[23-30]
- In a large RCT including almost 20 thousand patients with stage 2 or early stage 3 CKD and diabetes, researchers found pravastatin reduced cardiovascular event rates in patients with neither condition, only one of the conditions of interest, and both conditions of interest.[31]
- One RCT that included 200 patients with stage 4 and 5 chronic kidney...
disease found that aggressive treatment of risk factors was associated with a statistically significant reduction in risk, including serum low-density lipoprotein cholesterol; however, there was no difference between the intervention and control groups for the composite outcome: cardiovascular death, acute coronary syndrome, revascularization, non-fatal stroke, and amputation.[32]

**Clinical Recommendations**

- In their most recent 2003 guidelines, the National Kidney Foundation places chronic renal failure patients in the highest risk group for cardiovascular disease and recommends that physicians treat chronic renal failure as an NCEP ATP III coronary artery disease risk equivalent. According to the National Kidney Foundation guidelines, patients with chronic renal failure should have their lipids monitored regularly and any abnormalities treated in order to decrease the prevalence of CAD among these patients.[33]
- The USPSTF gives an A recommendation for the routine screening of men aged 35 years and older and women aged 45 years and older for lipid disorders and treat abnormal lipids in people who are at increased risk of coronary heart disease.[34]

**Source**

Health Benchmarks, Inc.

**Denominator**

Continuously enrolled members ages 19 years or older by the end of the measurement year who had at least one encounter in an inpatient setting with a diagnosis of chronic kidney disease, at least two encounters in an outpatient setting with a diagnosis of chronic kidney disease on different dates of service, or evidence of treatment for end-stage renal disease (ESRD) in the year prior to the measurement year.

**Relevant Billing Codes:**

- ICD-9 diagnosis code(s): 585, 585.x
- ICD-9 status “V” code(s): V45.1x, V56.xx

**Denominator Exclusion**

N/A
Numerator: Members who had at least one lipid panel during the year after the index date.

Relevant Billing Codes:

CPT-4 code(s): 80061, 82465, 83700, 83701, 83704, 83715, 83716, 83721, 84478

CPT Category II: 3048F, 3049F, 3050F (if available)

LOINC: 2089-1, 12773-8, 13457-7, 18261-8, 18262-6, 22748-8, 24331-1, 39469-2 (if available)

Interpretation of Score: High score implies better performance

Physician Attribution: Score all physicians (in the selected specialties) who saw the member during the year after the index date.

References:


**Indicator Classification** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications)

<table>
<thead>
<tr>
<th>Indicator Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnosis</strong></td>
<td>Measures applicable to patients receiving diagnostic workups for a symptom or condition that delineate appropriate laboratory or radiological testing to be performed (e.g. evaluation of thyroid nodule; pregnancy test in patients with vaginal bleeding or abdominal pain)</td>
</tr>
<tr>
<td><strong>Effectiveness of Care</strong></td>
<td>Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).</td>
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<tr>
<td><strong>Prevention</strong></td>
<td>Measures applicable to asymptomatic patients who have risk factors or pre-clinical disease, but in whom the condition has not become clinically apparent (e.g. pap smears; screening for elevated blood pressure).</td>
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<tr>
<td><strong>Screening</strong></td>
<td>Measures applicable to individuals diagnosed with a condition that are part of the treatment or management of the condition (e.g. cholesterol reduction in patients with diabetes; radiation therapy following breast conserving surgery; appropriate follow-up after acute event).</td>
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<tr>
<td><strong>Disease Management</strong></td>
<td>Measures applicable to patients taking medications with narrow therapeutic windows and/or potential preventable significant side effects or adverse reactions (e.g. thyroid stimulating hormone (TSH) testing after levothyroxine dose change; hepatic enzyme monitoring for patients using antifungal pharmacotherapy).</td>
</tr>
<tr>
<td><strong>Medication Monitoring</strong></td>
<td>Measures applicable to patients taking medications for chronic conditions that are designed to assess patient adherence to medication (e.g. adherence to lipid lowering medication).</td>
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<tr>
<td><strong>Medication Adherence</strong></td>
<td>Measures applicable to patients receiving treatment for a symptom or condition that advocate appropriate utilization of laboratory and pharmaceutical resources (e.g. conservative use of imaging for low back pain; inappropriate use of antibiotics for viral upper respiratory infection).</td>
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Strength of Recommendation Based on a Body of Evidence

FIGURE 2. Algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). While this algorithm provides a general guideline, authors and editors may adjust the strength of recommendation based on the benefits, harms, and costs of the intervention being recommended. (USPSTF = U.S. Preventive Services Task Force)