Client: HMSA: PQSR 2009

Measure Title: CHRONIC KIDNEY DISEASE: LIPID TESTS

Disease State: Chronic Kidney Disease  
Indicator Classification: Disease Management

Strength of Recommendation: B

Organizations Providing Recommendation:  
National Kidney Foundation  
Renal Physician’s Association  
US Preventive Services Task Force

Clinical Intent: To ensure that all eligible members identified as having Stage 5 chronic kidney disease (CKD) or greater receive lipid monitoring at least annually.

Physician Specialties (suggested): Refer to PQSR 2009 Clinical Measures by Specialty.

Background: Disease Burden
- Cardiovascular disease accounts for more than 50% of end-stage renal disease (ESRD) deaths and is the leading cause of death for patients with stage 5 CKD.[1, 2]
- Approximately 16.8% of the US population ages 20 and older have been diagnosed with CKD.[3] Among enrollees in Medicare, nearly 726,000 members have CKD.[4]

Reason for Indicated Intervention or Treatment
- Chronic renal dysfunction alone is an independent risk factor for the development of coronary artery disease.[5] It is also associated with an adverse effect on prognosis from cardiovascular disease, and an increased likelihood of severe coronary heart disease (CHD).[6-10]
- Abnormal lipid metabolism is common in patients with renal disease.[11]

Evidence Supporting Intervention or Treatment
- Many well designed trials have established that for patients diagnosed with lipid disorders, treatment is highly effective.
  o 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 [12, 13], normal or slightly elevated [14-20] cholesterol levels.
  o 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.[2, 21-28]

- In a large RCT including almost 20 thousand patients with stage 2 or early stage 3 CKD and diabetes, researchers found that pravastatin reduced cardiovascular event rates in patients with neither condition, only one of the conditions of interest, and both conditions of interest.[29]
- One RCT that included 200 patients with stage 4 and 5 CKD 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.[30]

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.[31]
- The Renal Physicians Association Clinical Practice Guideline recommends that advanced CKD patients with GFR ≤ 30ml/min per 1.73 m² should be examined for dyslipidemia- which includes measurement of triglyceride, LDL, HDL, and total cholesterol levels.[32]
- The USPSTF gives an A recommendation for the routine screening of men ages 35 years and older and women ages 45 years and older for lipid disorders and treat abnormal lipids in people who are at increased risk of coronary heart disease.[33]

Source

Health Benchmarks, Inc.

Denominator Definition

Continuously enrolled members ages 14 years or older by the end of the measurement year who had at least 1 encounter in an inpatient setting with a stage 5 diagnosis of CKD during the year prior to the measurement year, at least 2 encounters in an outpatient setting with a stage 5 diagnosis of CKD (on different dates of service) during the 2 year period starting 2 years prior to the measurement year, or evidence of treatment for end-stage renal disease (ESRD) during the year prior to the measurement year.
**Denominator Exclusion**

**Denominator**: Members receiving hospice care in the 0-365 days after the index date.

**Exclusion Definition**

**Numerator**

**Numerator**: Members who received a lipid panel or had LDL levels measured through direct/indirect means during 0-365 days after index date.

**Physician Attribution**

**Physician Attribution**: Score all physicians (in the selected specialties) who saw the member during the 0-365 days after the index date.

**References**


