**Clinical Quality Indicator Specification 2007**

Client: HMSA: PQSR 2007

Measure Title: TREATMENT OF CORONARY ARTERY DISEASE: LIPID-LOWERING DRUGS

Disease State: Coronary Artery Disease

Indicator Classification: Disease Management

Strength of Recommendation: A

Clinical Intent: To ensure that all eligible members identified as having coronary artery disease receive a lipid lowering medication within a clinically appropriate timeframe.

Physician Specialties: Refer to PQSR 2007 Specialty Matrix

Clinical Rationale - Disease Burden:
- Cardiovascular disease is the leading cause of death in the United States and is the primary cause of death for persons age 65 and older.[1, 2]
- In 2003, 13 million adults in the United States (6.9% of the population) had coronary heart disease (CHD)[1], which accounts for more than half of all cardiovascular events in men and women under the age of 75.[3]
- One of every five deaths in the United States in 2003 (approximately 650,000 deaths) was attributed to CHD.[1]
- Within 6 years of a myocardial infarction, 18% of men and 35% of women will have a recurrent myocardial infarction (MI), and 7% of men and 6% of women will experience sudden death.[4]

Reason for Indicated Intervention or Treatment:
- Increased blood cholesterol increases the risk for coronary heart disease. Lipid-lowering therapy can help decrease or reverse atherosclerotic lesion progression [5-8], decrease inflammation [9-12], and help with plaque stabilization, endothelial dysfunction reversal, and thrombogenicity reduction.[6, 13, 14]
- Clinically, lipid-lowering drug treatment is associated with decreased mortality and a lower incidence of cardiovascular events.[15-32]

Evidence supporting Intervention or Treatment:
- 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 [16, 17], normal or slightly elevated [18-24] 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.[25-32]

Clinical Recommendations:
- The Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III, or ATP III), released in 2002, recommends that patients with CHD achieve a target LDL cholesterol < 100 mg/dL.[33]
- The ATP III recommends initiating drug therapy (in addition to intensive...
lifestyle therapy) in patients with baseline cholesterol levels >=130 mg/dL. For those with LDL levels between 100-129 mg/dL, therapeutic lifestyle changes should be initiated, and clinical judgment should be used to decide about lipid-lowering medication use.[33]

- In 2004, the Coordinating Committee of the National Cholesterol Education Program (NCEP) of the National Heart, Lung and Blood Institute proposed modifications to the ATP III guidelines, and endorsed optional treatment of patients at very high risk for a coronary event (including those with acute coronary syndromes) to achieve an LDL cholesterol level < 70 mg/dL.[34]
- The American College of Cardiology (ACC) and American Heart Association (AHA) endorsed the above recommendations for patients with coronary artery disease [35-37], and recommended a target LDL level “substantially less than 100 mg/dL” for patients with a ST-elevation myocardial infarction.[35]

Source
Health Benchmarks, Inc. adapted from ACC/AMA/NQF guidelines in the following manner:
- HBI requires each face-to-face outpatient visit to be accompanied by a diagnosis of coronary artery disease.
- HBI also modified the identification period for the denominator to more accurately capture events in question.
- AMA/NQF also lists exclusion “Documentation that lipid lowering therapy was not indicated (LDL-C<100)” or “Other medical reasons documented by the practitioner for not prescribing lipid lowering therapy, or patient reasons (e.g. economic, social, religious)”. Given that we do not have outcome data or chart review capability, we have not used these exclusions.
- HBI modified the identification period for the denominator to more accurately capture events in question.

Denominator
Continuously enrolled members ages 19 years and older by the end of the measurement year, who were identified as having coronary artery disease (CAD) during the year prior to the measurement year. Members are identified with CAD if they suffered from or underwent treatment for an acute myocardial infarction (PTCA or CABG) or had evidence of ischemic vascular disease on an encounter record.

Relevant Billing Codes:
ICD-9 surgical procedure code(s): 36.0x
ICD-9 diagnosis code(s): 410.x1, 411.xx, 413.xx, 414.0x, 414.8x, 414.9x , 429.2x, 433.xx, 434.xx, 435.xx, 436.xx-438.9x, 440.1x, 440.20-440.24, 440.29, 441.xx, 443.9x, 444.xx, 445.xx
ICD-9 surgical procedure code(s): 36.1x, 36.2x
ICD-9 status “V” code(s): V45.81, V45.82

Denominator Exclusion
Members with evidence of contraindications to statins including rhabdomyolosis, acute renal disease, or active liver dysfunction (acute or chronic) anytime in the member's history prior to the end of the measurement year, or members who were pregnant during the year after the index date.

Relevant Billing Codes:

ICD-9 diagnosis code(s): 570, 573.1, 573.2, 573.3, 584.5x-586.xx, 630.xx-677.xx, 728.88, 729.1x, 788.5x

ICD-9 status “V” code(s): V22.xx, V23.xx, V24.xx, V27.xx, V28.xx, V56.0x, V56.8x

ICD-9 surgical procedure code(s): 39.95, 54.98, 66.62, 69.0x, 72.xx-75.xx

CPT-4 code(s): 59000, 59001, 59012, 59015, 59020, 59025, 59030, 59050, 59051, 59070, 59072, 59074, 59076, 59100, 59120, 59121, 59130, 59135, 59136, 59140, 59150, 59151, 59160, 59200, 59300, 59320, 59325, 59350, 59400, 59409, 59410, 59412, 59414, 59425, 59426, 59430, 59510, 59514, 59515, 59525, 59610, 59612, 59614, 59618, 59620, 59622, 59812, 59820, 59821, 59830, 59840, 59841, 59850-59852, 59855-59857, 59866, 59870, 59871, 59897-59899, 76801, 76802, 76805, 76810-76812, 76815-76819, 76825-76828, 76941, 76945, 76946, 80055, 82105, 82106, 82143, 82731, 88235, 88267, 88269

Numerator
Members with at least one prescription for a lipid-lowering drug during the year after the index date. Lipid-lowering drug therapy includes: bile acid sequestrants, fibric acid derivatives, HMG-CoA reductase inhibitors, and other selected anti-hyperlipidemic agents.

Interpretation of Score
High score implies better performance

Physician Attribution
Score all physicians practicing in applicable specialty areas who saw the member during the year after the index date.

References


23. Shepherd, J., et al., Pravastatin in elderly individuals at risk of vascular disease


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

**Diagnosis**
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)

**Effectiveness of Care**

**Prevention**
Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).

**Screening**
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).

**Disease Management**
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).

**Medication Monitoring**
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 antimycotic pharmacotherapy)

**Medication Adherence**
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).

**Utilization**
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).
Strength of Recommendation

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)