
# Guideline for Secondary Prevention for Patients with Coronary and Other Atherosclerotic Vascular Disease

Adopted by CHP Quality Improvement Committee:
9/8/09, 5/10/11, 5/14/13, 5/12/2015, 5/9/2017, 5/14/2019, 3/9/2021, 7/11/2023

# Secondary Prevention of Cardiovascular Disease

## 2023 Summary

Patients with established cardiovascular disease (CVD) have a high risk of subsequent CVD events, including myocardial infarction (MI), stroke, and death.

Therapeutic lifestyle changes in the form of increased physical activity, dietary modification/weight loss, and smoking cessation are of proven benefit and may improve outcomes beginning within a matter of weeks. In addition, adjunctive drug therapies of proven benefit include aspirin and statins, whose benefits are at least additive.

### I. Identifying Patients at High Risk:

A. Adults with multiple risk factors that confer a 10-year risk of CVD ≥ 7.5 to 20 percent are considered high risk. Those with a 10-year risk of CVD ≥ 20 percent are at very high-risk.

B. Most patients with diabetes, as well as many with Metabolic Syndrome, are at high risk.

C. Adults with chronic kidney disease (CKD), those with estimated glomerular filtration rate (eGFR) < 60 mL/min per 1.73m2, are also at high risk.

D. In addition, individuals are considered high risk if an imaging study documents atherosclerosis in the arterial circulation.

E. Age: Age is a major risk factor for all clinical manifestations of CVD. As the relative benefits of both therapeutic lifestyle changes and adjunctive drug therapies appear to be similar across all ages up to about 85 years, the absolute benefits are larger in older adults. We offer preventive strategies to older adults with the caveat that randomized trials have enrolled and followed patients into their 80s, but there are far more patients in middle than older ages. For many older adults, maintaining a high quality of life may be more important than quality of life. Since older adults tend to be on many drug therapies, clinicians should be aware of the greater potential for drug-drug interactions, especially in those with high-risk comorbidities such as chronic kidney disease.

### II. Dyslipidemia

A. We treat all patients with atherosclerotic cardiovascular disease (CVD), as well as individuals with at 10-year risk >20%, with evidence-based doses of a high-intensity statin regardless of the baseline low-density lipoprotein (LDL) cholesterol. For patents with a 10-year risk between 7.5% and 20%, we treat with a moderate-intensity statin.

B. In trials among patents with familial hypercholesterolemia, treated with either 80 mg atorvastatin or 40 mg of Rosuvastatin and needing further lipid modification, PCSK9 inhibitors have demonstrated CVD benefits over three years.

## III. Hypertension

A. Therapies: See Adjunctive Therapies (below)

B. Lifestyle: We recommend lifestyle changes for all apparently healthy individuals. In addition, this recommendation should be especially emphasized to patients with blood pressures of 120/80 mmHg or greater. The institution of therapeutic lifestyle changes pose little or no risks and are all likely to be beneficial for all patients regardless of blood pressure.

- Therapeutic lifestyle changes of proven benefit include::
- Weight loss
- Increased physical activity
- Dietary sodium restriction
- Reduction or avoidance of alcohol

## IV. Lifestyle Modifications: Lifestyle modifications have important beneficial effects on CVD morbidity and mortality that begin relatively shortly after their institution.

A. Diet:

- In observational studies, individuals who self-select for healthy diets experience significantly lower CVD event rates. Dietary interventions, in particular a Mediterranean diet, improve outcomes in patient with established CVD.
- We encourage adherence to diets that emphasize high intakes of vegetables, fruits, nuts, whole grains, lean vegetable or animal protein, and fish.
- Diets should minimize the intake of trans fats, red meat, and processed red meats, refined carbohydrates, and sweetened beverages.
- The European Society of Cardiology (ESC) guidelines on CVD prevention (both primary and secondary) make a recommendation for a Mediterranean or similar diet to reduce CVD risk. Further, they suggest replacing saturated with unsaturated fats,

  reducing salt intake, choosing a plant-based food pattern high in fiber, and eating fish, preferably fatty, at least once a week.
- For patients with known CVD or those at high risk who consume fish or are willing to do so, we recommend that they consume at least one to two servings per week of oily fish, which is consistent with the AHA recommendations.

B. Weight Reduction:

- In large-scale prospective studies, individuals who are overweight or obese have increased risks for CVD across a large range of levels. In the United States as well as other resource-rich countries, overweight and obesity may be overtaking smoking as the leading avoidable cause of premature death. Weight reduction is difficult to achieve and maintain; among the 90% of subjects who are successful initially, about 90% of those eventually regain the lost weight. However, a clear benefit of weight reduction on cardiovascular outcomes has not been clearly demonstrated.

- Overweight and obesity are also major contributors to metabolic syndrome, a constellation of hypertension, dyslipidemia, and insulin resistance, leading to diabetes. In the United States, metabolic syndrome, which confers high risk of a first CVD event, occurs in about 40% of individuals over age 40. In addition, overweight and obesity in the absence of metabolic syndrome also confer significantly increased risks of CVD.

- All patients with CVD should have a measurement of waist circumference and a calculation of body mass index. Weight reduction is optimally achieved with multiple strategies, including diet, increased physical activity, and possible pharmacologic therapy.

C. Physical Activity:

- Regular physical activity has numerous cardiovascular benefits, including weight loss, improvement in lipid profile, and reductions in blood pressure, as well as prevention and management of type 2 diabetes. All these beneficial effects lead to improvement in CVD morbidity and mortality.

- Prior to initiation of an activity program, most high-risk patients should undergo risk assessment with a physical activity history and/or an exercise test.

- We agree that the following recommendation for physical activity made in the 2019 ACC/AHA guideline on primary prevention of CVD is applicable to secondary prevention: Adults should engage in at least 150 minutes per week of accumulated moderate-intensity physical activity or 75 minutes per week of vigorous-intensity physical activity.

D. Smoking Cessation:

- Smoking cessation produces statistically and clinically important benefits on CVD, beginning within a matter of month and reaching the nonsmoker in three to five years. These benefits have been shown in secondary and primary prevention.

- Passive smoking has been clearly linked with a higher risk of CVD. Banning smoking in public places quickly reduced the incidence of acute MI in many observational studies.

E. Alcohol:

- Moderate alcohol consumption is associated with a reduced risk of CHD; however, binge drinking increases the risk for CHD.

F. Cardiac Rehabilitation Program:

- We recommend referral to a comprehensive, outpatient cardiovascular rehabilitation program for all eligible patients with a recent acute coronary syndrome (ACS) or revascularization procedure. Other patients, such as those with these diagnoses in the past year, those with chronic angina, or those with peripheral artery disease, may be candidates for referral. These programs are usually designed to provide the patient with assistance in lifestyle modification.

G. Text Messaging:

- Not all patients are able to attend a cardiac rehabilitation program, and many programs limit the number of sessions. Another way to deliver assistance to patients in the adoption of a healthy lifestyle may be for the patient to receive mobile phone text messages periodically. The TEXT ME study randomly assigned 710 patients with CHD to a text message-based prevention program that delivered semi-personalized text messages four times per week with advice, motivation, and information to improve diet, increase physical activity, and encourage smoking cessation (if applicable). At six months, the intervention group had statistically significant improvement in LCL cholesterol (79 vs 84 mg/dL), systolic blood pressure (128.2 versus 135.8 mmHg), BMI (29.0 versus 30.3), physical activity (936 versus 642.7 metabolic equivalent minutes/week), and percent of patients who smoked (26.0 versus 42.9).

**V. Adjunctive Therapies: All patients with established cardiovascular disease (CVD) and many other high-risk patients should receive aspirin and statin therapy. Other medications that may be of benefit in some patients include beta blockers, angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs). Aldosterone blockers, platelet $P2Y_{12}$ receptor blockers, colchicine, and oral anticoagulants. Administration of influenza vaccine also appears to be beneficial in patents with CV.**

A. Antiplatelet therapy:

- For patients with established CVD, we recommend long-term aspirin therapy. Long term antiplatelet therapy with aspirin reduces the risk of subsequent myocardial infarction (MI), stroke, and cardiovascular death among patients with a wide range of manifestation of occlusive CVD. In patients who are unable to take aspirin and in those with a history of gastrointestinal bleeding, clopidogrel is a reasonable alternative.

- For patients who have undergone percutaneous coronary intervention (PCI) with stenting or those who have an acute coronary syndrome (ACS), a $P2Y_{12}$ receptor blocker is added to aspirin for some period of time.

- The use of dual antiplatelet therapy has been evaluated in populations other than those with ACS or those who have had PCI. In the THEMIS trial, 19,220 patients with chronic coronary syndrome and type 2 diabetes mellitus were randomly assigned to ticagrelor 60 mg or placebo twice per day. All patients received low-dose aspirin once per day. Patients assigned at random to ticagrelor and aspirin had a 10 percent lower risk of ischemic CVD events (cardiovascular death, MI, or stroke) at 40 months when compared with aspirin alone (7.7 versus 8.5 percent; hazard ration [HR] 0.90, 95% CI 0.81-0.99) but a highly significant and clinically important large increases of major bleeding (2.2 vs 1.0 percent; HR 2.32. 95% CI 1.82-2.94) and intracranial hemorrhage (0.7 versus 0.5 percent; HR 1.71, 95% CI 1.18-2.48). Based on these data, the US Food and Drug Administration (FDA) approved dual antiplatelet therapy for this population with or without diabetes. As is the case for all such patients, the health care provider must weigh the benefits on occlusion against the risks on bleeding for each of their individual patients.

- In a pre-specified subgroup analysis of THEMIS (THEMIS-PCI) in the 11,154 patients with PCI, patients assigned to ticagrelor and aspirin had a 15 percent significant decreased incidence of ischemic CVD events compared with those assigned to aspirin and placebo (7.3 versus 8.6 percent/ HR 0.85, 95% CI ).74-0.97). In this subgroup, those assigned to ticagrelor and aspirin also had an over 80 percent significantly increased risks of major bleeding (2.0 versus 1.1 percent. Intracranial hemorrhage occurred in 0.6 percent in both groups. In the subgroup of patients with chronic coronary syndrome and type 2 diabetes mellitus with no history of PCI, there was no apparent benefit.

- This subgroup analysis contributes to the formulation of the hypothesis that patients with stable coronary artery disease (CAD) and diabetes at very high ischemic risk and low bleeding risk may have a net benefit with long-term dual antiplatelet therapy with aspirin and ticagrelor. Health care providers may wish to consider these possibilities in discussions with their patients.

B. Anticoagulant Therapy:

- For most patients with stable CAD on antiplatelet therapy, rivaroxaban 2.5 mg orally twice per day and aspirin may be considered for some stable atherosclerotic CVD patients at high risk of cardiovascular events and low risk for bleeding, based on the COMPASS trial, which is presented below. Such patients include those with peripheral artery disease or a history of ischemic stroke, multi-vessel CAD, incomplete coronary revascularization, diabetes, patients with a body weight >60 kg (132 pounds), prior coronary artery bypass surgery, chronic kidney disease, or multiple prior ischemic events. We do not recommend substituting or adding full-dose oral anticoagulant therapy to aspirin therapy in an attempt to lower the risk of subsequent CVD events.

- In stable patients, rivaroxaban, an oral direct Xa inhibitor, has been tested in secondary CVD prevention using a very low-dose regimen added to aspirin therapy.

- In the COMPASS trial, 27,395 patients with stable CAD or peripheral arterial disease were randomly assigned to rivaroxaban plus aspirin, rivaroxaban alone, or aspirin alone with a mean follow-up of 23 months. The dose of rivaroxaban in the combination arm was 2.5 mg orally twice per day; in the rivaroxaban-only arm, the dose was 5 mg orally twice per day. Compared with those assigned random aspirin alone, patients assigned to rivaroxaban plus aspirin had a 22 percent significant decrease in cardiovascular mortality (1.7 versus 2.2 percent; HR 0.78, 95% CI 0.64-0.96) and 49 percent decrease in ischemic stroke (0.7 versus 1.4 percent; HR 0.51, 95% CI 0.38-0.68). There was also a possible but non-significant 14 percent reduction in MI (1.9 versus 2.2 percent; HR 0.86; 95% CI 0.70-1.05). As expected, those assigned to combination therapy had a 70% percent significant increase in major bleeding events (3.1 versus 1.9 percent; HR 1.70, 95% CI 1.40-2.05), with the gastrointestinal tract being the most common site of major bleeding. The risk of intracranial hemorrhage was comparable between the two groups. Mortality and cardiovascular outcomes were similar in the rivaroxaban-alone and aspirin-alone groups, but there were significantly more major bleeding events in those assigned to rivaroxaban and aspirin. Health care providers should be aware of the balance between prevention of thrombosis and causing serious bleeding.

C. Beta Blockers:

- In patients with recent acute MI or in those with heart failure (HF) due to systolic dysfunction, oral beta blockers may be a part of their treatment regimen.

- In patients with chronic coronary syndrome and angina, beta blockers reduce the severity of frequency of anginal attacks. With the exception of patients with HF, the evidence is limited about whether beta blockers lower the risk of death in patients with chronic coronary syndrome when combined with contemporary secondary prevention strategies.

D. ACE inhibitors or ARBs:

- Many patients with established CVD will benefit from ACE inhibitor or ARB therapy. The most common indications are the attainment of goal blood pressure, the treatment of acute MI, or the presence of HF, left ventricular ejection fraction below 40 percent, diabetes, or proteinuric kidney disease.
- Other high-risk individuals include those with diabetes or chronic kidney disease. In these high-risk patients, ACE inhibitors and ARBs have been hypothesized to have cardio-protective effects independent of blood pressure lowering, but the available evidence suggest that the attained blood pressure is of primary importance. ACE inhibitors or ARBs may also be a first-line drug of choice to control blood pressure in diabetic and metabolic syndrome patients with or without prior MI.

E. Polypill:

- Polypills combine fixed doses of medication such as aspirin, ace-inhibitor and statin into one pill and have been proposed as a method to increase medication adherence.
- In the Secondary Prevention of Cardiovascular Disease in the Elderly (SECURE) trial of nearly 2500 patients from 7 European countries with recent myocardial infarction (MI), treatment with a Polypill containing aspirin (100 mg), ramipril (2.5, 5, or 10 mg), and atorvastatin (20 or 40 mg) was shown to lower risk of major adverse cardiovascular events compared with usual care. Eligible patients were either older than 75 or at least 65 years of age with at least one additional risk factor [diabetes mellitus, mild or moderate kidney disease, previous myocardial infarction (defined as infarction occurring before the index event), previous coronary revascularization]. The mean age of participants was 76 years and 70 percent were male. Time from MI to randomization was a median of 8 days (interquartile range 3 to 37).
- After 36 months of follow-up, the following outcomes were observed:
    - Those assigned to the Polypill events had had lower rates of cardiovascular events (cardiovascular death, nonfatal type 1 myocardial infarction, nonfatal ischemic stroke, or urgent revascularization): 9.5 vs 12.7 percent; hazard ratio [HR] 0.76, 95% CI 0.60-0.96) compared with the usual care group.
    - There were no difference in blood pressure or LDL cholesterol levels during follow-up between the two treatment groups.
    - Medication adherence as reported by the patients was higher in the Polypill versus usual care group.
    - Adverse event rates were similar between treatment groups.
    - A lack of difference in follow-up blood pressure or LDL cholesterol suggest that the ramipril and statin components of the Polypill had pleiotropic effects,

beyond the lowering of these risk factors, that resulted in lower rates of secondary CVD.

F. Mineralocorticoid Receptor Antagonist:

- The use of a mineralocorticoid receptor antagonist (e.g. Spironolactone or epleronone) is recommended for certain patients with heart failure and reduced ejection fraction.

G. Colchicine:

- For patients with chronic CAD who have been provided with recommendations for therapeutic lifestyle changes and prescribed appropriate preventive medications (which may include statins and aspirin), we suggest treatment with colchicine 0.5 (or 0.6) mg per day. In randomized trials in the secondary prevention of CAD, patients assigned to colchicine had improved outcomes.

- The most common side effects (diarrhea, nausea, vomiting, and abdominal pain) are usually mild. Transient, and usually painless, elevations of creatinine kinase have also been reported; this may be related to other drugs such as statins or other lipid-lowering drugs. This dosage of colchicine may been to be reduced in patients taking P-glycoprotein (P-gp) inhibitors or strong CYP3A4 inhibitors, including certain beta blockers, calcium channel blockers, or amiodarone. Colchicine is contraindicated in patients with renal or hepatic impairment.

- Colchicine reduced risks of CAD in the LoDoCo2 trial. This trial randomly assigned 5522 patients, 85 percent men, with chronic CAD to 0.5 mg of colchicine once per day or placebo. After two and a half years, those assigned to colchicine had a decreased risk of the primary composite endpoint (HR 0.69, 95% CO 0.57-0.83), with reductions in MI (3.0 versus 4.2 percent; HR 0.70, 95% CI 0.53-0.93) and ischemia-driven coronary artery revascularization (4.9 versus 6.4 percent; HR 0.75, 95% CI).60-0.94). The incidence of death from non-cardiovascular causes appeared higher in the colchicine group; however, this finding did not achieve statistical significance (0.7 versus 0.5 percent; HR 1.51, 95% CI 0.99-2.31). All-cause mortality was similar in both groups (RR 1.08, 95% CI0.71-1.62). Colchicine produced no significant adverse effects except for a somewhat higher rate of myalgia (21.2 versus 18.5 percent). In post hoc subgroup analyses, benefits were similar among those with and without a history of prior ACS or timing of reported ACS.

H. Sodium-Glucose Co-Transporter 2 Inhibitors:

- Certain sodium-glucose co-transporter 2 (SGLT2) inhibitors reduce cardiovascular outcomes in patients with heart failure with reduced ejection fraction (with and without diabetes mellitus) and in patients with type 2 diabetes mellitus and existing CVD.

I. Marine Omega-3 Fatty Acids:

- Many patients with established CVD or at high risk of CVD have hypertriglyceridemia. We do not routinely recommend marine omega-3 fatty acids in individuals with CAD without hypertriglyceridemia. For such patients, there is less evidence supporting their use. The OMEMI trial randomly assigned 1027 patients aged 70-82 years with recent (within two to eight weeks) MI to treatment with 1.8 g marine n-3 polyunsaturated fatty acid or corn oil. Among enrolled patients, the mean triglyceride level was 111 mg/dL, that is, most did not have hypertriglyceridemia (defined as a triglyceride level ≥150 mg/dL). The rate of the primary composite endpoint (nonfatal MI, unscheduled revascularization, stroke, all-cause death, or heart failure hospitalization) after two years was similar in both treatment groups (21.4 versus 30.0 percent; HR 1.08, 95% CI 0.82-1.42). The small sample size may have limited the ability to detect statistically significant difference in outcomes.

J. COVID-19 and Influenza Vaccinations:

- As with adults in the general population, we recommend annual influenza vaccine for patient with CVD.

- We also encourage all patients with CVD to receive vaccination against COVID-19, due to increased risk of severity of COVID-19 infection.

- Individuals with established CVD and high-risk primary prevention subjects have increased risks for complications of influenza infection. In a cross-sectional study of 80,000 adults hospitalized with influenza (of who 20 percent had chronic CVD, 20 percent chronic kidney disease, and 15 percent diabetes), 11.7 percent had an acute cardiovascular event during hospitalization, most commonly acute HF or acute ischemic heart disease.

- Influenza vaccines may reduce mortality and CVD outcomes in these patients. In a 2013 meta-analysis of trials conducted among persons with CVD or at high risk, those receiving an influenza vaccine had fewer cardiovascular events than those in the control group. A randomized clinical trial of 2571 participants at 30 centers across eight countries found that primary outcomes (all-cause death, MI, and stent thrombosis) were less frequent in participants assigned influenza vaccine versus those assigned placebo (5.3 versus 7.2 percent)

## VI. Therapies with uncertain or no benefit:

A. Antioxidant vitamins:

- Antioxidant vitamins, which are nonprescription and sold over the counter, have promising basic research and supportive observational data, but the randomized evidence has not demonstrated clinical benefits on CVD in secondary or primary prevention. The hypotheses that vitamin E. Beta carotene, and/or vitamin C decrease the risks of CVD has been tested in several large-scale randomized trials in secondary and primary prevention. The results have not supported either the potential beneficial mechanisms suggested form basic research or possible benefits hypothesized from observational studies.

B. Homocysteine and Folic Acid:

- Although in observational studies, subjects with elevated levels of homocysteine have an increased risk of CHD, and given the fact that vitamin supplementation with folic acid lowers homocysteine levels, data from multiple randomized trial designed to test the hypothesis show no significant benefits to folic acid supplementation of the risks of CVD.

C. Postmenopausal Hormone Therapy

D. Chelation:

- The totality of evidence does not support a recommendation for chelation therapy in patients with CAD. There is only one randomized trial of this issue, the TACT trial. TACT assigned 1708 patients with prior MI at random to 40 infusions of a chelation solution or placebo over one to two years. The primary composite endpoint (total mortality, recurrent MI, stroke, coronary revascularization, or hospitalization for angina) occurred less frequently in the chelation group (26 versus 30 percent; HR 0.82, 95% CI 0.69-0.99) during a median follow-up of 4.6 years. This observed possible benefit needs to be interpreted in the context of the potential for unmasking and the use of multiple interim analyses, as well as thee high rate of dropouts. Further randomized evidence is necessary in order to make any evidence-based recommendations.

E. Cholesteryl-ester Transfer Protein Inhibitors:

- Inhibition of the cholesteryl-ester transfer protein (CETP) leads to large increases in high-density lipoprotein (HDL) and modest reductions in low-density lipoprotein (LDL). Of four large trials, three were terminated early, two for lack of benefit and one due to clear evidence of harm. In the fourth trial, the addition of the CETP inhibitor anacetrapib to intensive statin treatment in patients with atherosclerotic vascular disease resulted in a modest but significantly lower incidence of major

coronary events than the addition of placebo during four years of treatment. One intriguing subgroup finding in the trial of dalcetrapib suggested there may be ADCY9 genotype-dependent effects of this CETP inhibitor on biomarkers as well as clinical cardiovascular outcomes. These observations, at least in part, formed the based for the ongoing dal-GenE randomized trial.

- The REVEAL trial compared anacetrapib with placebo in 30,449 patients with chronic atherosclerotic disease. After 4.1 years, anacetrapib-treated patients presented a lower incidence of the primary outcomes (major coronary event, a composite of coronary death, MI, or coronary revascularization [10.8 versus 11.8 percent]). This benefit was considered statistically significant but not enough to continue research and development of the product.

F. Methotrexate:

- Methotrexate has been postulated to lower the risk of CVD by reducing inflammation. However, in the Cardiovascular Inflammation Reduction Trial (CIRT) of 4786 patients with known MI or multi-vessel CAD who also had diabetes mellitus or metabolic syndrome, rates of the combined CDVD outcome (nonfatal MI, nonfatal stroke, or cardiovascular death) were similar between the low-dose methotrexate (15 to 20 mg weekly) and placebo groups.

G. Allopurinol:

- Among patients with gout, observational studies suggest that urate-lowering therapy with allopurinol is associated with lower CVD and mortality. However, larger trial of allopurinol in patients with ischemic heart disease and no history of gout did not show that it was efficacious in reducing rates of cardiovascular disease. In the ALL-HEART open-label multicenter trial in the United Kingdom, 5937 participants aged ≥60 years were randomly assigned to receive allopurinol or usual care and followed for the composite outcome of MI, stroke, or cardiovascular death. After an average of 5 years, those assigned to allopurinol and those assigned to usual care had similar rates of the composite endpoint (11 versus 11.3 percent; HR 1.04. 95% CI 0.89-1.21). These results do not support the hypothesis that allopurinol be given to individuals with ischemic heart disease for secondary CVD prevention.

## VII. Patient Education

A. Patient education regarding his or her risk factors and their management is central to secondary prevention. Patients with chronic coronary syndrome, also referred to as stable ischemic heart disease, should have an individualized education plan to optimize care and promote wellness that includes education on medication adherence; an explanation of medication management and cardiovascular risk reduction strategies in a manner that respects the patient's level of understanding; a comprehensive review of all therapeutic options; a description of appropriate levels of exercise; introduction to self-monitoring

skills; and information on how to recognize worsening cardiovascular symptoms and take appropriate action.

## VIII. Summary and Recommendations

A. Identifying patients at high risk:

- Patients with established coronary heart disease (CHD) have higher risks of subsequent cardiovascular events, including myocardial infarction (MI), stroke, and death from cardiovascular disease (CVD).

B. Lifestyle modifications:

- Therapeutic lifestyle changes of proven benefit include avoidance or cessation of smoking, increasing levels of daily physical activity, and healthy diet. Modifications of multiple major risk factors may produce additive benefits.

C. Pharmacologic treatment:

- Statins: We treat all patients with atherosclerotic CVD, as well as individuals with a 10-year risk >20 percent, with evidence-based doses of a high-intensity statin regardless of the baseline LCL cholesterol.

- Aspirin: Patients with established atherosclerotic CVD are treated with long-term aspirin therapy.

- Colchicine: For patients with chronic coronary disease who are receiving other secondary preventive drug therapies, we suggest adding colchicine 0.5 (or0.6) mg per day. (Grade 2B)

D. Anticoagulant therapy for some patients:

- For most patients with stable coronary artery disease (CAD) on antiplatelet therapy, we do not substitute or add a full-dose oral anticoagulant therapy to aspirin. For some stable atherosclerotic CVD patients who are at high risk of cardiovascular events and at low risk for bleeding, a regimen of rivaroxaban 2.5 mg orally twice per day and aspirin may be considered.

E. Other potential treatments:

- Other medications that may be of benefit in some patients include beta blockers, angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), or aldosterone blockers.

**Annual Measurement for Effectiveness of Cardiovascular Conditions Guideline**

***HEDIS® Guidelines for Cardiovascular Conditions, Commercial and Medicare populations:***

- ***Controlling High Blood Pressure***
- ***Persistence of Beta-Blocker Treatment After a Heart Attack***
- ***Statin Therapy for Patients With Cardiovascular Disease***
- ***Cardiac Rehabilitation***

**References:**

[1] http://www.uptodate.com/contents/overview-of-the-prevention-of-cardiovascular-disease-events-in-those-with-established-disease-(secondary-prevention-or-at-very-high-risk

Topic Last updated Oct 25, 2022

Literature review current through Mar 2023

[2] NCQA; Technical Specifications for Health Plans; HEDIS MY 2023, Volume 2