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GUIDELINE FOR PRIMARY PREVENTION OF CARDIOVASCULAR DISEASE

Atherosclerotic cardiovascular disease (ASCVD) is one of the leading causes of morbidity and mortality around the world. In the United States, an estimated >$200 billion annually is spent on healthcare services, medications, and lost productivity associated with ASCVD. The newly published ACC/AHA Task Force on Clinical Practice Guidelines provides recommendations for aspirin use, exercise and physical activity and assessment of social determinants of health. This issue of *CLIPs* will provide an overview of medication changes to previous guidelines for ASCVD. Class IA recommendations are included, unless otherwise noted. If you need further information, please contact the Center for Healthcare Innovation and Patient Outcomes Research (CHIPOR) at chipor@samford.edu.

Arnett DK, Blumenthal RS, Albert MA, et al. 2019 ACC/AHA guideline on the primary prevention of cardiovascular disease: Executive summary. DOI: 10.1016/j.jacc.2019.03.009. Available at: http://www.onlinejacc.org/content/early/2019/03/21/j.jacc.2019.03.009. Accessed March 22, 2019.

Class IA recommendations

Domain	Recommendation
Patient-centered approaches to ASCVD prevention	Team-based approaches are recommended to control risk factors associated with ASCVD.
Assessment of cardiovascular risk	Clinicians should routinely assess traditional cardiovascular risk factors and calculate 10-year risk of ASCVD by using pooled cohort equations (PCE).
Nutrition and diet	A diet emphasizing intake of vegetables, fruits, legumes, nuts, whole grains, and fish is recommended to decrease ASCVD risk factors.
Exercise and physical activity	Adults should be routinely counseled during healthcare visits to optimize physically active lifestyle. Adults should participate in at least 150 minutes per week of moderate-intensity or 75 minutes per week of vigorous-intensity aerobic physical activity (or an equivalent amount of moderate and vigorous activity) to reduce ASCVD risk.
Overweight / obese adults	Weight loss is recommended to improve ASCVD risk factor profile. In addition, counseling and comprehensive lifestyle interventions are recommended for achieving and maintaining weight loss in overweight and obese adults.
Aspirin use (IIb recommendation)	Low dose aspirin (75-100 mg orally daily) may be considered for primary prevention of ASCVD among select adults 40 to 70 years of age who are at a higher ASCVD risk, but not at an increased risk of bleeding.

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Class IA recommendations (continued)

Adults with diabetes	Adults with T2DM should receive a tailored nutrition plan to improve glycemic control and achieve weight loss. Patients should engage in 150 minutes per week of moderate-intensity or 75 minutes per week vigorous intensity of exercise.
Adults with high blood cholesterol	Statin therapy should be offered for adults at intermediate risk (≥7.5% to <20% 10 year ASCVD risk). A moderate intensity statin is recommended. In patients with intermediate risk, LDL-C levels should be reduced by ≥30% and patients at high risk (≥20% 10 year ASCVD risk), LDL-C levels should be reduced by 50% or more. In adults 40-75 years of age with diabetes, regardless of estimated 10-year ASCVD risk, moderate-intensity statin therapy is indicated. In patients 20-75 years with an LDL-C level ≥ 190 mg/dL, maximally tolerated statin therapy is recommended.
Adults with hypertension	In patients with an estimated 10-year ASCVD risk ≥ 10%, an average systolic BP (SBP) of 130 mmHg or higher or an average diastolic BP (DBP) of 80 mmHg or higher, use of BP-lower medications is recommended for primary prevention of CVD. In adults with hypertension and a 10-year ASCVD event risk ≥10%, a target BP <130/80 mmHg is recommended. In adults with hypertension and chronic kidney disease, BP treatment goal <130/80 mmHg is recommended. In adults with T2DM and hypertension, antihypertensive treatment should be initiated at a BP of 130/80 mmHg or higher, with a treatment goal of <130/80 mmHg. In adults with an estimated 10-year ASCVD risk <10% and a SBP ≥ 140 mmHg or higher or a DBP of 90 mmHg or higher, BP lower medication is recommended.
Treatment of tobacco use	Adults should be assessed at every healthcare visit for tobacco use and advised to quit. A combination of behavioral interventions plus pharmacotherapy is recommended to reduce ASCVD risk. Nicotine replacement therapy and other medications (e.g., bupropion, varenicline) is recommended. See http://rxforchange.ucsf.edu) for additional information.

Conclusions

- Most ASCVD events are avoidable through primary prevention and control of risk factors.
- Tobacco cessation and dietary modifications are key elements to reduce ASCVD risk.
- Clinicians should appropriately assess risk and recommend the appropriate nonpharmacological and pharmacological treatment recommendations.

Prepared by: Maisha Kelly Freeman, PharmD, MS, BCPS, FASCP