Right Care Initiative Capital Region University of Best Practices - September 9, 2019

Stephen Sidney. MD, MPH

Director of Research Clinics and Senior Research Scientist, Kaiser Permanente Northern California Division of Research

Stephen Sidney, MD, MPH, is the Director of Research Clinics and a senior research scientist with the Kaiser Permanente Northern California Division of Research. He is board certified in internal medicine and certified as a preventive and rehabilitative exercise program director by the American College of Sports Medicine. Dr. Sidney's research interests include cardiovascular disease, physical activity and fitness, obesity, acute coronary syndrome, and cerebrovascular disease. Dr. Sidney also serves as a member of the Alameda County Public Health Advisory Board and board member of a support group for parents of students with special education needs. Dr. Sidney has authored or co-authored more than 280 peer-reviewed scientific publications while a researcher at the Division of Research. His research publications cover a diverse range of topics, primarily in the area of cardiovascular epidemiology. He serves as the principal investigator of the CARDIA Study (Coronary Artery Risk Development in Young Adults) which is a prospective community-based study of 5115 black and white participants aged 18 to 30 years who have been under surveillance for over 30 years. From this study, Dr. Sidney and colleagues found evidence supporting the selective use of screening for Coronary Artery Calcium in individuals with risk factors in early adulthood to inform discussions about primary prevention.

Robert Sallis, MD, FAAFP, FACSM

Clinical Professor of Family Medicine, University of California, Riverside, School of Medicine; Co-Director, Sports Medicine, Kaiser Permanente Medical Center, Fontana, CA

Dr. Sallis is a Family Medicine and Sports Medicine physician practicing at Kaiser Permanente Medical Center in Fontana, California. He also serves as co-director of the sports medicine fellowship program and on the Administrative Faculty for the Family Medicine Residency Program, and chairs the Research Committee for the medical center. He is a Past-President of the American College of Sports Medicine (ACSM) and currently chairs the Advisory Board for the *Exercise Is Medicine Global Health Initiative*. He received his Bachelor of Science degree from the U.S. Air Force Academy, his Medical Degree from Texas A&M University and completed his residency in Family Medicine at Kaiser Permanente Medical Center in Fontana.

Matthew P. Wonnacott, MD

Co-Chair, Capital Region University of Best Practices; Chief Medical Officer, Barton Health

As Chief Medical Officer of Barton Health in the South Lake Tahoe region, Dr. Wonnacott's medical practice is devoted to the underserved. He completed his undergraduate coursework at Southern Utah University and received his Medical Degree from the Uniformed Services University of Health Sciences as well as his additional certification from the American Board of Family Medicine. Dr. Wonnacott recently retired as Colonel in the United States Air Force, previously serving as Chief Medical Officer and Deputy Commander for David Grant Medical Center, the Air Force's largest and busiest inpatient platform. He is a physician leader specializing in Family Medicine, with clinical expertise in treating children, adults and geriatric patients. He has served in a variety of clinical, operational, and executive medicine roles over 25 years. He is known for many different professional qualities including compassion and clinical acumen, strategic insight and initiative, with strengths in motivating and influencing people, team leadership and collaboration, partnerships, working with physicians and clinic workflow optimization.

Neal Kohatsu, MD, MPH, FACPM

Former Chief Medical Officer, MediCal; Right Care Ambassador at Large, Right Care Technical Expert Group Member 2008-present

Dr. Kohatsu was appointed in March 2011 as the first Medical Director for the California Department of Health Care Services which serves over 12 million Medi-Cal members. He was charged with advancing population health and improving clinical quality, coordinating the implementation and management of the Department's Quality Strategy. Since 2008, Dr. Kohatsu has been a vital member of the Right Care Technical Expert Group. Throughout his career, Dr. Kohatsu has held leadership positions in the public, private, and academic sectors related to prevention, chronic disease management, worksite health promotion, quality improvement, and patient safety. He has published research in areas ranging from evidence-based public health to patient safety and is the Associate Editor of the textbook, Public Health and Preventive Medicine. Dr. Kohatsu is board-certified in Public Health and General Preventive Medicine. He is a fellow and past president of the American College of Preventive Medicine and is on the Editorial Board of the American Journal of Preventive Medicine. Dr. Kohatsu received his A.B. degree in Human Biology from Stanford University; M.D. from the University of Pittsburgh; M.P.H. from the University of Minnesota; and fellowship training in cardiovascular disease prevention and epidemiology at Stanford University, School of Medicine.

Top 10 Take-Home Messages to Reduce Risk of Atherosclerotic Cardiovascular Disease through Cholesterol Management

November 2018 AHA/ACC Cholesterol Clinical Practice Guidelines (Grundy SM et al)

1. In all individuals, emphasize a heart-healthy lifestyle across the life course. A healthy lifestyle reduces atherosclerotic cardiovascular disease (ASCVD) risk at all ages. In younger individuals, healthy lifestyle can reduce development of risk factors and is the foundation of ASCVD risk reduction. In young adults 20 to 39 years of age, an assessment of lifetime risk facilitates the clinician–patient risk discussion and emphasizes intensive lifestyle efforts. In all age groups, lifestyle therapy is the primary intervention for metabolic syndrome.

2. In patients with clinical ASCVD, reduce low-density lipoprotein cholesterol (LDL-C) with high intensity statin therapy or maximally tolerated statin therapy. The more LDL-C is reduced on statin therapy, the greater will be subsequent risk reduction. Use a maximally tolerated statin to lower LDLC levels by ≥50%.

3. In very high-risk ASCVD, use a LDL-C threshold of 70 mg/dL (1.8 mmol/L) to consider addition of non-statins to statin therapy. Very high risk includes a history of multiple major ASCVD events or 1 major ASCVD event and multiple high-risk conditions. In very high-risk ASCVD patients, it is reasonable to add ezetimibe to maximally tolerated statin therapy when the LDL-C level remains ≥70 mg/dL (≥1.8 mmol/L). In patients at very high risk whose LDL-C level remains ≥70 mg/dL (≥1.8 mmol/L) on maximally tolerated statin and ezetimibe therapy, adding a PCSK9 inhibitor is reasonable, although the long-term safety (>3 years) is uncertain and cost effectiveness is low at mid-2018 list prices.

4. In patients with severe primary hypercholesterolemia (LDL-C level ≥190 mg/dL [≥4.9 mmol/L]), without calculating 10-year ASCVD risk, begin high-intensity statin therapy without calculating 10- year ASCVD risk. If the LDL-C level remains ≥100 mg/dL (≥2.6 mmol/L), adding ezetimibe is reasonable. If the LDL-C level on statin plus ezetimibe remains ≥100 mg/dL (≥2.6 mmol/L) and the patient has multiple factors that increase subsequent risk of ASCVD events, a PCSK9 inhibitor may be considered, although the long-term safety (>3 years) is uncertain and economic value is low at mid-2018 list prices.

5. In patients 40 to 75 years of age with diabetes mellitus and LDL-C ≥70 mg/dL (≥1.8 mmol/L), start moderate-intensity statin therapy without calculating 10-year ASCVD risk. In patients with diabetes mellitus at higher risk, especially those with multiple risk factors or those 50 to 75 years of age, it is reasonable to use a high-intensity statin to reduce the LDL-C level by ≥50%.

6. In adults 40 to 75 years of age evaluated for primary ASCVD prevention, have a clinician–patient risk discussion before starting statin therapy. Risk discussion should include a review of major risk factors (e.g., cigarette smoking, elevated blood pressure, LDL-C, hemoglobin A1C [if indicated], and calculated 10-year risk of ASCVD); the presence of risk-enhancing factors; the potential benefits of lifestyle and statin therapies; the potential for adverse effects and drug–drug interactions; consideration of costs of statin therapy; and patient preferences and values in shared decision-making.

7. In adults 40 to 75 years of age without diabetes mellitus and with LDL-C levels ≥70 mg/dL (≥1.8 mmol/L), at a 10-year ASCVD risk of ≥7.5%, start a moderate-intensity statin if a discussion of treatment options favors statin therapy. Risk-enhancing factors favor statin therapy. If risk status is uncertain, consider using **coronary artery calcium (CAC)** to improve specificity. If statins are indicated, reduce LDL-C levels by ≥30%, and if 10-year risk is ≥20%, reduce LDL-C levels by ≥50%.

8. In adults 40 to 75 years of age without diabetes mellitus and 10-year risk of 7.5% to 19.9% (intermediate risk), risk-enhancing factors favor initiation of statin therapy (see No. 7). Risk-enhancing factors include family history of premature ASCVD; persistently elevated LDL-C levels ≥160 mg/dL (≥4.1 mmol/L); metabolic syndrome; chronic kidney disease; history of preeclampsia or premature menopause (age <40 years); chronic inflammatory disorders (e.g., rheumatoid arthritis, psoriasis, or chronic HIV); high-risk ethnic groups (e.g., South Asian); persistent elevations of triglycerides ≥175 mg/dL (≥1.97 mmol/L); and, if measured in selected individuals, apolipoprotein B ≥130 mg/dL, high-sensitivity C-reactive protein ≥2.0 mg/L, ankle-brachial index <0.9 and lipoprotein (a) ≥50 mg/dL or 125 nmol/L, especially at higher values of lipoprotein (a). Risk-enhancing factors may favor statin therapy in patients at 10-year risk of 5-7.5% (borderline risk).

9. In adults 40 to 75 years of age without diabetes mellitus and with LDL-C levels ≥70 mg/dL- 189 mg/dL (≥1.8-4.9 mmol/L), at a 10-year ASCVD risk of ≥7.5% to 19.9%, if a decision about statin therapy is uncertain, consider measuring **CAC**. If **CAC** is zero, treatment with statin therapy may be withheld or delayed, except in cigarette smokers, those with diabetes mellitus, and those with a strong family history of premature ASCVD. A **CAC** score of 1 to 99 favors statin therapy, especially in those ≥55 years of age. For any patient, if the **CAC** score is ≥100 Agatston units or ≥75th percentile, statin therapy is indicated unless otherwise deferred by the outcome of clinician–patient risk discussion.

10. Assess adherence and percentage response to LDL-C–lowering medications and lifestyle changes with repeat lipid measurement 4 to 12 weeks after statin initiation or dose adjustment, repeated every 3 to 12 months as needed. Define responses to lifestyle and statin therapy by percentage reductions in LDL-C levels compared with baseline. In ASCVD patients at very high-risk, triggers for adding non-statin drug therapy are defined by threshold LDL-C levels ≥70 mg/dL (≥1.8 mmol/L) on maximal statin