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• A nonfasting plasma lipid profile can be obtained to estimate ASCVD risk and document baseline LDL-C in adults 20 years and older who are not on lipid-lowering therapy. • Maximally tolerated statin therapy is recommended for patients 20 to 75 years of age with an LDL-C level of 190 mg per dL or greater. • Moderate-intensity statin therapy should be initiated without calculating a 10-year ASCVD risk for patients 40 to 75 years of age with diabetes mellitus. • Patients without diabetes at intermediate risk of ASCVD with LDL-C levels of 70 to 189 mg per dL should be treated with a moderate-intensity statin for a goal of 30% or greater reduction in LDL-C levels. The American College of Cardiology/American Heart Association (ACC/AHA) task force on clinical practice guidelines has updated its 2013 cholesterol guideline. The 2018 guideline narrows the use of the atherosclerotic cardiovascular disease (ASCVD) risk calculator, provides more guidance on the use of risk-enhancing factors in making statin therapy decisions, and recommends therapy options for achieving low-density lipoprotein cholesterol (LDL-C) targets. The updated guideline also includes recommendations for nonstatin lipid-lowering agents that can be used as statin add-ons to meet recommended LDL-C thresholds. A cornerstone of the guideline is to emphasize a heart-healthy lifestyle for all patients. A healthy lifestyle reduces ASCVD risk at all ages and can reduce the development of risk factors in younger patients. Selected Strong Recommendations MEASURING BLOOD CHOLESTEROL Based on moderate-quality evidence from nonrandomized trials, measuring fasting or nonfasting plasma lipid levels is effective in estimating ASCVD risk and documenting baseline LDL-C in adults 20 years and older who are not on lipid-lowering therapy. When an initial nonfasting lipid profile reveals a triglyceride level of 400 mg per dL (4.5 mmol per L) or greater, a repeat lipid profile should be obtained to assess fasting triglyceride and baseline LDL-C levels in adults 20 years and older. Based on high-quality evidence from randomized controlled trials (RCTs), high-intensity statin therapy should be instituted with a goal of lowering LDL-C levels by 50% or more in patients with ASCVD up to 75 years of age. If treatment is not tolerated, then moderate-intensity therapy should be used with a goal of achieving a 30% to 49% reduction in LDL-C levels. Based on nonrandomized trials, patients at very high risk (history of multiple ASCVD events or one event with multiple high-risk comorbidities) should be considered for treatment with maximally tolerated statin doses and ezetimibe (Zetia) before considering the addition of a proprotein convertase subtilisin/kexin type 9 inhibitor. SEVERE HYPERCHOLESTEROLEMIA Based on moderate-quality evidence from RCTs, maximally tolerated statin therapy is recommended for patients 20 to 75 years of age with an LDL-C level of 190 mg per dL (4.92 mmol per L) or greater. Based on high-quality evidence from RCTs, moderate-intensity statin therapy should be initiated without calculating a 10-year ASCVD risk for all patients 40 to 75 years of age with diabetes mellitus. Moderate-quality evidence from nonrandomized studies recommends estimating the 10-year ASCVD risk of a first fatal or nonfatal myocardial infarction or stroke by using the race and sex-specific pooled cohort equations. Patients should then be categorized as low (less than 5%), borderline (5% to 7.4%), intermediate (7.5% to 19.9%), or high (20% or greater) risk. High-quality evidence from RCTs recommends that patients 40 to 75 years of age without diabetes who are at intermediate risk with LDL-C levels of 70 to 189 mg per dL (1.81 to 4.90 mmol per L) should be treated with a moderate-intensity statin. A 30% or greater reduction in LDL-C levels is recommended, and in high-risk patients a 50% or greater reduction is recommended. The physician and patient should discuss risk factors before starting statin therapy. The conversation should include major risk factors such as cigarette smoking, elevated blood pressure, LDL-C levels, 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; cost of therapy; and patient preferences and values in shared decision-making. Risk-enhancing factors include a family history of premature ASCVD; persistently elevated LDL-C levels of 160 mg per dL (4.14 mmol per L) or greater; metabolic syndrome; chronic kidney disease; history of preeclampsia or premature menopause (younger than 40 years); chronic inflammatory disorders (e.g., rheumatoid arthritis, psoriasis, chronic HIV infection); high-risk ethnic groups (e.g., south Asian descent); persistent triglyceride levels of 175 mg per dL (2.0 mmol per L) or greater; and, if measured in selected individuals, an apolipoprotein B level of 130 mg per dL (1.3 g per L) or greater, high-sensitivity C-reactive protein level of 2.0 mg per L (19.05 nmol per L) or greater, an ankle-brachial index less than 0.9, and lipoprotein (a) level of 50 mg per dL (1.79 µmol per L) or greater, especially at higher values of lipoprotein (a). MONITORING RESPONSE TO THERAPY Based on high-quality RCTs, fasting lipid measurement should be repeated four to 12 weeks after starting the statin or making a dose adjustment to assess adherence and response to LDL-C-lowering medications and lifestyle changes. Following that, lipid measurement should be repeated every three to 12 months as needed. Selected Moderate-Strength Recommendations Based on moderate-quality evidence from RCTs, the addition of nonstatin drug therapy should be considered at a threshold LDL-C level of at least 70 mg per dL on maximal statin therapy in patients with ASCVD at very high risk. Also, it may be beneficial to treat patients 20 to 75 years of age who have an LDL-C level of 190 mg per dL or greater with ezetimibe if they have not been able to achieve a 50% reduction in LDL-C level while receiving maximally tolerated statin therapy and/or still have an LDL-C level of at least 100 mg per dL (2.59 mmol per L). Based on moderate-quality evidence from nonrandomized studies, the 10-year risk of a first ASCVD event can be assessed in patients 40 to 75 years of age with diabetes and an LDL-C level of 70 to 189 mg per dL. Patients with diabetes who have multiple ASCVD risk factors should be treated with high-intensity statin therapy with a goal of reducing LDL-C levels by 50% or more, according to data from RCTs. Moderate-quality evidence from RCTs recommends that patients 40 to 75 years without diabetes who have a 10-year risk of 7.5% to 19.9% and risk-enhancing factors start or intensify statin therapy. Based on moderate-quality evidence from nonrandomized trials, it is reasonable to obtain a coronary artery calcium (CAC) score for patients 40 to 75 years of age with an LDL-C level of 70 to 189 mg per dL and a 10-year ASCVD risk of 7.5% to 19.9% if a decision about statin therapy is uncertain. If the CAC score is zero, statin therapy should be withheld or delayed unless the patient is a cigarette smoker, has diabetes, or has a strong family history of premature ASCVD. A CAC score of 1 to 99 suggests statin therapy, particularly for patients 55 years and older. If the CAC score is 100 or greater or in the 75th percentile or greater, statin therapy is indicated for any patient unless otherwise deferred by the outcome of the physician-patient risk discussion. Editor's Note: Similar to the 2013 ACC/AHA cholesterol guideline, this guideline has some utility for family physicians but is limited by several recommendations that will be challenging to implement and lack patient-oriented evidence. For example, the guideline recommends periodic lipid monitoring in patients receiving therapy, even though randomized trials generally prescribed fixed statin doses rather than titrating to LDL-C percentage reductions or threshold levels. It encourages the expanded use of CAC scoring to guide the decision to start statin therapy, even though no studies have shown that risk stratification based on CAC score reduces cardiovascular morbidity or mortality more than traditional risk factors alone. Finally, the ACC/AHA did not update the Pooled Cohort Equations risk assessment tool, despite widespread recognition that it can significantly overestimate 10-year risk of myocardial infarction and stroke. Given the imprecision in risk estimates, eliciting patients' values and preferences regarding the potential benefits and harms of statins and other lipid-lowering agents remains essential to treatment decisions.—Kenny Lin, MD, MPH, AFP Deputy Editor Guideline source: American College of Cardiology/American Heart Association Evidence rating system used? Yes Systematic literature search described? Yes Guideline developed by participants without relevant financial ties to industry? No Recommendations based on patient-oriented outcomes? Yes Published source: J Am Coll Cardiol. November 8, 2018 [published online ahead of print]. Accessed February 26, 2019. This guideline was reviewed by the AAFP and received an Affirmation of Value: Page 2 Study Population: Postmenopausal women with diagnosed osteoporosis Efficacy End Points: Prevention of new vertebral and nonvertebral fractures Harm End Points: Infection, neoplasm, death Narrative: As bone density decreases, people are at an increased risk of fractures.1 Denosumab (Prolia) is a fully human monoclonal antibody that binds the receptor activator of nuclear factor kappa B ligand (RANKL), which prevents its interaction with the osteoclast and osteoclast precursor surface receptor, RANK. This inhibits osteoclast-mediated bone resorption by blocking osteoclast function, formation, and survival.2,3 Studies have demonstrated an increase in bone mineral density with the administration of denosumab in postmenopausal women.4,5 This review assesses whether the increase in bone mineral density translates into a reduction in the risk of osteoporosis-related fractures. The FREEDOM trial is the largest randomized controlled trial to compare denosumab with placebo in the prevention of fractures in postmenopausal women with osteoporosis.2 Women between 60 and 90 years of age with a bone mineral density T-score of less than −2.5 (consistent with the typical definition of osteoporosis) at the lumbar spine or total hip were included in the trial. Patients were randomly assigned to receive subcutaneous injections of 60 mg of denosumab or placebo every six months for 36 months. In this trial, the primary end point was new vertebral fractures based on semi-quantitative grading scales of lateral spine radiographs.2 The treatment with denosumab was associated with significantly lower risk of new vertebral fractures (relative risk [RR] = 0.32;95% CI, 0.26 to 0.41; absolute risk difference [ARD] = 4.8%; number needed to treat [NNT] = 21). Secondary outcomes included nonvertebral fractures (NNT = 71), hip fractures (NNT = 230), new clinical vertebral fractures (NNT = 62), and multiple (at least two) new vertebral fractures (NNT = 103). The study found no significant difference in the incidence of infection, death, or neoplasm.2 A 2014 meta-analysis of 13 trials examined the safety of denosumab in 15,263 postmenopausal women with documented osteoporosis who were followed between nine months to three years after initiation of therapy.3 This meta-analysis found a nonsignificant reduction in the risk of nonvertebral fractures with the administration of denosumab (RR = 0.86; 95% CI, 0.74 to 1.00). The meta-analysis found the difference in incidence of death or neoplasm to be nonsignificant. The difference in rate of infection was not statistically significant between the groups (RR = 1.23; 95% CI, 1.00 to 1.52).2 Using this information, we calculated the number needed to harm (NNH) because the sample size for the meta-analysis was larger than the FREEDOM trial2 and the objective of the meta-analysis specifically was to assess the safety of the treatment.3 Another 2014 systematic review compared the effectiveness of various pharmacologic treatments in reducing risk of fractures.6 This analysis confirmed the efficacy of denosumab in reducing the risk of fractures in postmenopausal women. For different pharmacologic treatments including various bisphosphonates, bis-phosphate derivatives, teriparatide (Forteo), raloxifene (Evista), or denosumab; the NNT for vertebral fractures was in the range of 60 to 89 and the NNT for nonvertebral fracture was 50 to 60.6 The review also found denosumab to have an NNH of 118 for infection (RR = 1.28; 95% CI, 1.02 to 1.60; ARD = 0.85%).6 Caveats: The meta-analysis by Zhou and colleagues3 included 11 randomized controlled trials, but the FREEDOM2 trial was the largest study with that sample size accounting for about 60% of the total number of participants in all studies. The existing evidence supports the safety of denosumab, but the follow-up period for the trials (ranging from nine months to three years) may have been too short for assessing the harm end points of neoplasm, death, or infection. More follow-up is needed to understand the long-term safety profile of this treatment. One group of patients in the FREEDOM trial was followed for an additional seven years. In this follow-up study, the rates of serious adverse events for participants treated with denosumab remained low (11.5 and 14.4 per 100 participant-years).7 Denosumab is marketed under brand names Prolia and Xgeva. As of October 2018, the price of one 60-mg syringe or vial, which has to be administered every six months, is approximately $1,200 to $1,400 (estimated retail price based on information obtained at). The manufacturer's website lists examples of possible infections associated with denosumab as infections of "skin, lower stomach, bladder, ear, or the inner layer of the heart (endocarditis)".8 Denosumab appears to be effective in reducing the risk of vertebral and nonvertebral fractures in postmenopausal women with osteoporosis. Treatment with denosumab does not increase the risk of cancer or death but might increase the risk of infection. However, given the nonstatistically significant impact on nonvertebral fractures and the uncertainty of longer-term harms because of relatively short follow-up periods, we assigned this treatment a color recommendation of yellow (unclear benefit; more studies required). Page 3 After having one year as editor-in-chief under my belt, I can say it has been an exciting challenge and a year of professional and personal growth. The purpose of this editorial is to welcome the first Jay Siwek medical editing fellow, share new journal features, highlight the top 20 American Family Physician (AFP) articles of 2018, provide an update on AFP's statistics for print circulation and website visits, and thank AFP peer reviewers.1,2 Inaugural Jay Siwek Medical Editing Fellowship The AFP team is fortunate to have had so many outstanding candidates apply for this new fellowship. It speaks to the talent among those who pursue a career in family medicine. We are proud to welcome Dr. Michael J. Arnold as the first Jay Siwek medical editing fellow. He currently serves as an assistant professor at the Uniformed Services University of the Health Sciences, and interestingly, has a background in electrical engineering and served as an undersea medical officer in the U.S. Navy. You can read more about his background and interests in the AFP Community Blog (, in April of 2018, we published the first Rapid Evidence Review article (on osteoarthritis, a new feature developed by Dr. Mark Ebell, AFP deputy editor for evidence-based medicine.3 We plan to continue publishing traditional review articles, but this new format provides concise evidence-based content for those looking for a quick read. Stay tuned for more of these types of articles. In November of 2018, we published the first Lown Right Care: Reducing Overuse and Underuse (.4,5 The goal of this series, conceived under the guidance of Dr. Jay Siwek, AFP editor emeritus, and managed by Dr. Kenny Lin, AFP deputy editor, is to collaborate with the Lown Institute to summarize clinical practices that incorporate evidence-based interventions while avoiding unnecessary interventions—in other words, "getting care right." Most recently, we launched AFP Clinical Answers (.6 This new series highlights important take-home points from past AFP issues to help readers quickly answer clinical questions. Be on the lookout for another new series called Diagnostic Tests: What Physicians Need to Know, which will provide objective assessments of new tests similar to the way the STEPS: New Drug Reviews series evaluates drugs. AFP's Top 20 Articles of 2018 Don't miss the top 20 AFP articles that were viewed the most by readers on the website in 2018 (. Topics included outpatient insulin management in type 2 diabetes mellitus, acute migraines, vitamin D screening, well-child visits, transgender care, geriatric assessment, and several musculoskeletal themes such as low back pain, knee pain, and running injuries. Our goal is to highlight all of these topics in the new AFP Clinical Answers department. The top 20 most viewed AFP articles from 2017 can be found at . How to Stay Current with AFP Have you listened to the AFP Podcast (? The podcast has been produced in partnership with the University of Arizona College of Medicine Phoenix Family Medicine Residency program since 2015 under the direction of Dr. Steven Brown, AFP contributing editor. More than 30,000 listeners tune in to each episode to hear clinical insights. The episodes have been downloaded more than 2,650,000 times (about 150,000 times per month) and the podcast was awarded the 2018 Innovative Program Award by the Society of Teachers of Family Medicine and also has received top honors from Association Media & Publishing. You can read the top 10 AFP Community Blog posts of 2018 to learn about prostate-specific antigen screening, acute flaccid myelitis, the Choosing Wisely campaign, hypertension, travel tips, and more (. The AFP Community Blog has had more than 660,000 page views since it launched in 2010 and is managed by Dr. Kenny Lin, with many insightful posts from Dr. Jennifer Middleton, AFP contributing editor. Stay current with evidence-based medicine (EBM) terminology using AFP's Evidence-based Medicine Toolkit (. The toolkit includes an EBM glossary, a list of EBM feature articles and departments, a description of Strength of Recommendation Taxonomy (the AFP evidence-rating system), background articles, and resources on EBM. Circulation and Website Statistics The circulation of AFP's print journal is approximately 186,000 (Table 1). To the best of our knowledge, this makes AFP the second-highest ranked among more than 5,000 peer-reviewed medical journals.7 Circulation includes 94,000 members of the American Academy of Family Physicians (AAFP), approximately 42,000 nonmember family physicians, and approximately 50,000 general internists. AFP has consistently been rated the number one journal among primary care physicians.8 The AFP website received more than 28 million unique visitors (attributable to a unique browser or device) in 2018, making it one of the most popular online medical publications. This means that in addition to visits by almost all AAFP members, the website is viewed by millions of other health care professionals and others who presumably are seeking information about various clinical conditions. Additionally, more than 450,000 continuing medical education (CME) credits were awarded to AFP readers in 2018. Publication Timelines and Acceptance Rates On average, review articles are accepted five months after they are submitted, which allows time for peer review and medical editing (Table 2). Articles are typically published eight to nine months after acceptance. A lot goes into the selection of articles for each issue to provide readers with a mix of topics. To ensure comprehensive coverage of a curriculum of topics, we solicit most of the articles that are published. Authors who propose topics go through a formal approval process before submitting a manuscript for consideration, and they are strongly encouraged to read the AFP Authors' Guide before contacting us (. Only about 10% of proposed topics are approved, often because the topic has already been covered or does not fit the AFP curriculum. For solicited and proposed topics, AFP editors provide authors with detailed guidance on the focus of the article. For these reasons, the acceptance rate for solicited manuscripts and approved proposals is high at 92%. Acknowledging Peer Reviewers Peer review continues to be an essential and valuable process for the journal, and we are highly appreciative of the work reviewers do in helping us develop sound content for AFP.9,10 In addition to recognizing peer reviewers for volunteering their time (, we are also highlighting reviewers who provided exceptional feedback and received a high rating on the reviews they provided to AFP authors and editors. An archive of past AFP peer reviewers is available at . My hope is to continually improve our processes, enrich the skills of our current and future reviewers, and highlight more exceptional reviewers year after year. Not only is peer review critical to producing good content, but it is also an important part of learning how to analyze articles and improving one's own authorship skills. If you are interested in reviewing for AFP, please visit the Reviewers' Guide (and complete a reviewer profile, or email usafjournal@aafp.org. For new reviewers, we highly recommend that you find a mentor for your first review. The AAFP has authorized CME credit for AAFP members who peer review manuscripts for journals. To report peer review CME activity, visit the AAFP's Report CME Activities page (and select Scholarly Activity under the Report Self-Directed Learning Activities heading. Finally, we want to give countless thanks to our dedicated authors and readers. We are proud of the reach and popularity of AFP and of the impact it has on the health care of our patients and communities. Page 4 Tuberculosis Screening and Treatment in Immigrants Immigrants who have tuberculosis (TB) disease or latent TB infection should be screened for TB and treated as appropriate to decrease the risk of TB in the United States. Do not routinely screen immigrants who have TB disease or latent TB infection for human immunodeficiency virus (HIV) infection. Page 5 Screening and Treatment for Hepatitis C Virus Infection Screening for hepatitis C virus (HCV) infection should be performed in nonpregnant women, oral and genital treatment options for uncomplicated vulvovaginal candidiasis have similar clinical cures. Mad medicine. Page 6 Hypertension Screening Screen for hypertension in children and adolescents at least once a year. Page 7 Screening for Hypertension in Children Children should be tested for elevated blood pressure (BP) if indicated for stable coronary artery disease (CAD), unless contraindicated. Daily low-dose aspirin is recommended for all patients with stable CAD, unless contraindicated. Beta blockers should be continued for up to three years after myocardial infarction in patients with abnormal left ventricular function. How should hypertension be screened and managed in children and adolescents? According to the American Academy of Pediatrics, blood pressure (BP) should be measured yearly in patients three years and older. It should be measured at every visit for patients who are obese; have renal disease, diabetes mellitus, or a history of aortic obstruction or coarctation; or are taking medications associated with elevated BP. Ambulatory BP monitoring should be performed in the setting of suspected white coat hypertension, elevated category of blood pressure for least one year, or with stage 1 hypertension at three separate office visits. The goal of treatment in children should be to reduce systolic and diastolic BP to less than the 90th percentile and less than 130/80 mm Hg in those 13 years and older. Dr Written action plans for self-management of COPD reduce the severity of acute exacerbations? Written self-management plans, especially those that include guidance on smoking cessation, increase health-related quality of life in patients with chronic obstructive pulmonary disease (COPD). They also decrease hospitalizations, emergency department visits, and unscheduled primary care visits. Should patients with chronic obstructive pulmonary disease (COPD) who are at risk for exacerbations be given a supply of antibiotics to take at home? Patients with COPD who are at risk for exacerbations should be given a supply of antibiotics to take at home. Page 8 Should we screen for dementia? Screening for dementia in primary care may improve the detection of dementia, but it may also increase the number of false-positive results.