How Do I Use the New Cholesterol Guidelines?

Ashley Fort, MPAS, PA-C

Ashley Fort is the Academic Coordinator and an Assistant Professor in the PA Program at Louisiana State University Health Science Center. Cardio Consult is edited by **Rebecca Clawson, MAT, PA-C,** an Instructor in the PA Program, School of Allied Health Professions, LSU Health Shreveport, Louisiana.

Q I'm still confused by the change in approach to use of statin therapy for cardiovascular disease. How do I determine which patients need statins?

Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of death in adults in the United States.[1] Statins have long been recommended in the management of individuals with ASCVD.

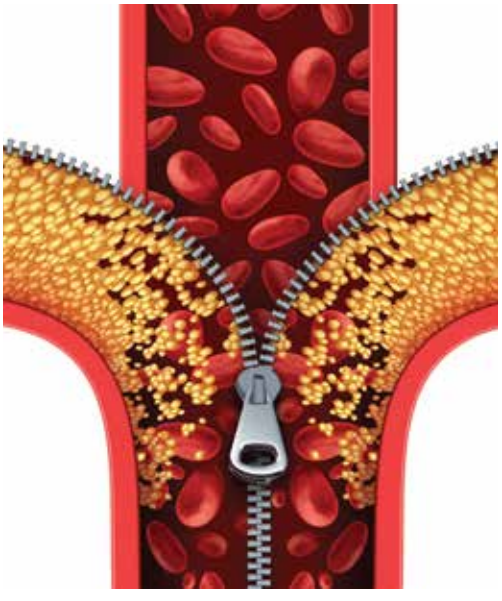
Historically, statin use was guided by an LDL cholesterol (LDL-C) target, per the Adult Treatment Panel (ATP III) guidelines. Therapy was intensified based on whether patients met these targets. Newer guidelines from the American Heart Association/American College of Cardiology (AHA/ACC) base statin therapy not on an LDL-C number but rather on risk stratification that considers several factors.[1-3]

The AHA/ACC guidelines classify statins as high-, moderate-, or low-intensity.[2] They also identify four major groups in whom the benefits of statin therapy for reducing ASCVD risk outweigh the risks of therapy. These include patients with

1. Clinical ASCVD (eg, coronary heart disease, stroke, transient ischemic attack, or atherosclerotic peripheral arterial disease)
2. Primary elevated LDL-C ≥ 190 mg/dL
3. Diabetes (specifically, in those ages 40-75 with an LDL-C of 70-189 mg/dL)
4. An estimated 10-year ASCVD risk ≥ 7.5%.[2,3] (A risk calculator can be found at **www.cvriskcalculator.com**).

Recommended statin regimens for patients meeting these criteria are outlined in the Table (see next page).

These new guidelines significantly increase the number of adults who are eligible for statin therapy. The number of adults ages 60 to 75 *without* cardiovascular disease who now qualify for statin therapy has substantially increased (from 30% to 87% in men and from 21% to 54% among women).[4] The bulk of this increase is in adults needing primary prevention based on their 10-year cardiovascular risk.[4] Evidence as to whether expanded use of statins will improve clinical outcomes is still pending. **—AF** **CR**



REFERENCES

1. Gencer B, Auer R, Nanchen D, et al. Expected impact of applying new 2013 AHA/ACC cholesterol guidelines criteria on the recommended lipid target achievement after acute coronary syndromes. *Atherosclerosis.* 2015; 239(1):118-124.
2. Stone NJ, Robinson JG, Lichtenstein AH, et al; American College of Cardiology/American Heart Association Task Force on Practice Guidelines. 2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol.* 2014;63(25):2889-2934.
3. Adhyaru B, Jacobson T. New cholesterol guidelines for the management of atherosclerotic cardiovascular disease risk: a comparison of the 2013 American College of Cardiology/American Heart Association cholesterol guidelines with the 2014 National Lipid Association recommendations for patient-centered management of dyslipidemia. *Cardiol Clin.* 2015;33(15):181-196.
4. Pencina MJ, Navar-Boggan AM, D'Agostino RB Sr, et al. Application of new cholesterol guidelines to a population-based sample. *N Engl J Med.* 2014;370(15):1422-1431.

TABLE

Recommended Statin Regimens for Patients Meeting Criteria for Therapy*

Risk Stratification Group	Medium-intensity Statin	High-intensity Statin
Clinical ASCVD	Age > 75 or cannot tolerate high-intensity Atorvastatin 10-20 mg Rosuvastatin 5-10 mg Simvastatin 20-40 mg Pravastatin 40-80 mg Fluvastatin 80 mg	Age < 75 Atorvastatin 40-80 mg Rosuvastatin 20-40 mg
LDL ≥ 190 mg/dL	Not recommended	Recommended: see medications above
Diabetes with LDL 70-189 mg/dL **Ages 40-75**	10-year risk < 7.5% (see medications above)	10-year risk ≥ 7.5% (see medications above)
10-year risk ≥ 7.5% **Ages 40-75**	Clinical decision-making needed (see medications above)	Clinical decision-making needed (see medications above)

* Low-intensity statins are only recommended when the patient cannot tolerate medium-intensity statins.
Abbreviation: ASCVD, atherosclerotic cardiovascular disease.
Source: Stone et al. *J Am Coll Cardiol.* 2014.[2]

>> continued from page 14

CHALLENGES TO IMPLEMENTATION

All-too-common product

CS/GC is available OTC and advertised directly to consumers. With this medication so readily available, identifying patients who are taking the supplement and encouraging discontinuation can be a challenge. **CR**

REFERENCES

1. Roman-Blas JA, Castañeda S, Sánchez-Pernaute O, et al. Combined treatment with chondroitin sulfate and glucosamine sulfate shows no superiority over placebo for reduction of joint pain and functional impairment in patients with knee osteoarthritis: a six-month multicenter, randomized, double-blind, placebo-controlled clinical trial. *Arthritis Rheumatol.* 2017;69:77-85.
2. Dillon CF, Rasch EK, Gu Q, et al. Prevalence of knee osteoarthritis in the United States: arthritis data from the Third National Health and Nutrition Examination Survey 1991-94. *J Rheumatol.* 2006;33:2271-2279.
3. Hochberg MC, Altman RD, April KT, et al. American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care Res (Hoboken).* 2012;64:465-474.
4. Brown GA. AAOS clinical practice guideline: treatment of osteoarthritis of the knee: evidence-based guideline, 2nd ed. *J Am Acad Orthop Surg.* 2013;21:577-579.
5. Jordan KM, Arden NK, Doherty M, et al. EULAR Recommendations 2003: an evidence based approach to the management of knee osteoarthritis: report of a Task Force of the Standing Committee for International Clinical Studies Including Therapeutic Trials (ESCISIT). *Ann Rheum Dis.* 2003;62:1145-1155.
6. Ebell MH. Osteoarthritis: rapid evidence review. *Am Fam Physician.* 2018;97:523-526.
7. Clarke TC, Black LI, Stussman BJ, et al. Trends in the use of complementary health approaches among adults: United States, 2002-2012. *Natl Health Stat Rep.* 2015;(79):1-16.
8. Singh JA, Noorbaloochi S, MacDonald R, et al. Chondroitin for osteoarthritis. *Cochrane Database Syst Rev.* 2015;(1):CD005614.

ACKNOWLEDGEMENT

The PURLs Surveillance System was supported in part by Grant Number UL1RR024999 from the National Center For Research Resources, a Clinical Translational Science Award to the University of Chicago. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Center For Research Resources or the National Institutes of Health.