

The Role of Retail Pharmacies in CVD Prevention After the Release of the ATP IV Guidelines

William H. Shrank, MD, MSHS; Andrew Sussman, MD; and Troyen A. Brennan, MD, JD

November 2013 marked the release of the much-awaited National Cholesterol Education Program Adult Treatment Panel IV (ATP IV) guidelines for cholesterol management, which sent shockwaves throughout the healthcare system. The guidelines fundamentally altered long-held conceptions about how to best manage hypercholesterolemia in order to reduce cardiovascular risk.¹ The effectiveness and safety of statins had not been in question as the cornerstone of therapy. However, we had always been advised to start at a low dose and to treat to specific low-density lipoprotein (LDL) targets, intensifying therapy incrementally until those targets were met.

The experts who systematically reviewed the scientific literature found no evidence to continue treating to specific biometric targets. The trial evidence supports treating patients who fit into specific risk bands with higher dose therapy from the start, as the head-to-head evidence of numerous cholesterol-lowering treatments consistently demonstrated the benefit of more aggressive treatment, related to the pleomorphic effects of statins.

The authors identified 4 subgroups of patients who should be targeted for cholesterol-lowering treatment: 1) individuals with clinical arteriosclerotic cardiovascular disease (ASCVD), 2) those with primary elevations of LDL >190 mg/dL, 3) patients with diabetes aged 40 to 75 years with LDL 70 to 189 mg/dL and without clinical ASCVD, and 4) individuals without clinical ASCVD or diabetes, with LDL 70 to 189 mg/dL, and with an estimated 10-year ASCVD risk >7.5%. The management of cholesterol should shift, they found, to a broader approach of population risk assessment and initiation of the most evidence-based therapy and dose, abandoning the standard treat-to-target strategy to which providers have grown accustomed.

One recent study applied these guidelines to data from the National Health and Nutrition Examination Sur-

vey and found that the new guidelines will increase the number of adults eligible for treatment with a statin for primary prevention of cardiovascular disease by over 12 million.² Moreover, the guidelines highlight the safety of statins; they may buttress efforts to make statins available over the counter as safety concerns lessen.

Specialty societies, such as the American Association of Clinical Endocrinologists, have pushed back against the new guidelines. They cite the quality and timeliness of evidence included; the perception that patients need careful follow-up after initiation of therapy; and the belief that biometric testing offers clear evidence that the patient is actually taking the medication. In fact, the recent guidelines recommend intermittent cholesterol measurement as a way of demonstrating that the patient is consuming the cholesterol-lowering treatment. These concerns are well-founded, as patients frequently fail to adhere to essential cardiopreventive therapy. In one recent large study, only about half of the patients prescribed statins after a heart attack took them as directed, even when provided at no cost to the patient.³ There is substantial evidence to suggest that greater adherence to lipid-lowering therapy can lead to improved outcomes and reduced total healthcare costs.^{4,5} Efforts to promote adherence to these therapies are certainly at the core of effective prevention strategies.

Providers and administrators across the health system have also balked at how the new guidelines fundamentally alter quality measurement in cardiovascular disease prevention. Measure sets employed by commercial insurers (Health Plan Employer Data & Information Set) and Medicare (Star ratings) have relied heavily on biometric targets, such as LDL and total cholesterol levels, as key outcome measures. Provider groups have developed considerable infrastructure to target those who have not reached biometric goals for outreach.

When the dust settles, it seems the quality of cholesterol management will shift to 2 key outcomes: 1) whether

Take-Away Points

- National Cholesterol Education Program Adult Treatment Panel IV guidelines fundamentally changed the way cholesterol management is recommended.
- Retail pharmacies and retail clinics are uniquely positioned to deliver high-quality, low-cost cardioprevention services to populations, and can serve as integral partners to the delivery team.

appropriate patients are initiated on therapy, and 2) whether treated patients adhere to therapy as prescribed. These are also commonly used quality measures. However, the adherence measure is often challenging for physicians to manage. Providers frequently do not have access to real-time adherence data, and feel they have limited control of patient behavior once the patient leaves their office. As a result, some argue that lab tests offer patients a tangible numeric target and serve as a marker of adherence and a means of motivating patients to manage their condition.

However, reliance on biometric measures is a misguided approach, and physicians alone cannot assure adequate adherence. The evidence suggests that team-based, multi-factorial,⁶ data-driven approaches⁷ to adherence are far more effective than interventions driven by the physician alone.⁸ Pharmacists, and retail pharmacies more specifically, have consistently demonstrated that they are key partners in efforts to promote adherence.⁹ The evidence would suggest that if adherence is our goal, we need to think about a very different paradigm than the old doctor-based, treat-to-target algorithm that has been relied upon in the past.

In fact, when one considers the broadest perspective, we may be reaching a tipping point, where community-based entities play an even greater role in collaborating with primary care providers to prevent cardiovascular disease. Americans visit their retail pharmacist far more frequently than their primary care physician's office. Many retail pharmacies now offer point-of-care cholesterol testing and can certainly provide the risk-stratification needed to determine whether therapy is appropriate. Many pharmacies also have retail clinics where prescriptions can be written based on widely accepted clinical guidelines for dosing and measurement. Of course, these aspects of care would need to be coordinated and clinical information shared with the primary care medical home, facilitated by integrated electronic medical records. In such an environment one could envision an expanding role for retail pharmacies in cardiovascular prevention. Moreover, retail pharmacies could substantially enhance prevention activities by playing a greater role in team-based adher-

ence strategies that could make care more accessible and at lower cost.

By placing the pharmacist and nurse practitioner at the center of efforts to prevent cardiovascular disease, the role of the pharmacy as a trusted health ambassador within neighborhoods is enhanced. As we think about how to improve the health of

populations, this neighborhood-based approach to prevention may be a critical way to improve health and reduce total healthcare costs. However, doing so will require effective, real-time communication between pharmacies and primary care doctors, emphasizing the need for implementation of electronic medical records that connect both parties.

The conversation about how to best manage cholesterol will continue, as affected parties adjust to a new view about the evidence and the role of the provider in cholesterol management and promoting cardiovascular health. Providers who continue to rely on fee-for-service reimbursement may see retail pharmacy participation as a threat to revenue. However, as we move toward value-based payments and accountable care, efficient prevention and reduction in downstream healthcare costs will be shared by a broader team of providers. Retail pharmacies ought to be part of this conversation, and by integrating seamlessly into primary care teams, may offer uniquely efficient and scalable solutions for cardiovascular disease prevention at lower cost and with higher quality.

Acknowledgments

We are grateful for feedback from Michael Lauer, MD, director of the Division of Cardiovascular Sciences at the National Heart, Lung, and Blood Institute.

Author Affiliations: CVS Caremark, Woonsocket, RI (WHS, AS, TAB).

Source of Funding: There was no explicit funding for this project.

Author Disclosures: All authors are employees of CVS Caremark, a company with financial interest in the topic described here.

Authorship Information: Concept and design (WHS, AS); drafting of the manuscript (WHS); critical revision of the manuscript for important intellectual content (TAB, AS); administrative, technical, or logistic support (TAB); and supervision (TAB).

Address correspondence to: William H. Shrank, MD, MSHS, CVS Caremark Corporation, 100 Scenic View Rd, Cumberland, RI 02864. E-mail: william.shrank@cvscaremark.com.

REFERENCES

1. 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 Pt B):2889-2934.

2. 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.
3. Choudhry NK, Avorn J, Glynn RJ, et al; Full coverage for preventive medications after myocardial infarction. *N Engl J Med*. 2011;365(22):2088-2097.
4. Bitton A, Choudhry NK, Matlin OS, Swanton K, Shrank WH. The impact of medication adherence on coronary artery disease costs and outcomes: a systematic review. *Am J Med*. 2013;126(4):357.e7-357.e27.
5. Roebuck MC, Liberman JN, Gemmill-Toyama M, Brennan TA. Medication adherence leads to lower health care use and costs despite increased drug spending. *Health Aff (Millwood)*. 2011;30(1):91-99.
6. Kripalani S, Yao X, Haynes RB. Interventions to enhance medication adherence in chronic medical conditions: a systematic review. *Arch Intern Med*. 2007;167(6):540-550.
7. Cutrona SL, Choudhry NK, Fischer MA, et al. Targeting cardiovascular medication adherence interventions. *J Am Pharm Assoc*. 2012;52(3):381-397.
8. Cutrona SL, Choudhry NK, Stedman M, et al. Physician effectiveness in interventions to improve cardiovascular medication adherence: a systematic review. *J Gen Int Med*. 2010;25(10):1090-1096.
9. Cutrona SL, Choudhry NK, Fischer MA, et al. Modes of delivery for interventions to improve cardiovascular medication adherence. *Am J Manag Care*. 2010;16(12):929-942. ■

www.ajmc.com Published as a Web exclusive