JACC: ADVANCES VOL. 3, NO. 1, 2024

EDITORIAL COMMENT

Reinstating LDL-C Measurement as a Quality Metric

This Is the Way*

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Cardiovascular disease (CVD) is and has remained the leading cause of morbidity and mortality since the 1920s.[1] In recent years, CVD event and CVD-related death rates have been increasing among younger and middle-aged individuals, leading to greater socioeconomic burden and health care–related costs.[1] A global study assessing more than 1.5 million individuals across 112 clinical studies from 34 countries found that more than 50% of CVD and approximately 20% of cardiovascular death was attributable to 5 modifiable risk factors: body mass index, systolic blood pressure, non–high-density lipoprotein cholesterol, current smoking, and diabetes mellitus.[2] In our world of rapidly advancing scientific technology that has accelerated our understanding of CVD and its risk factors, implementation of measures to prevent CVD and its recurrence remains inadequate, and much more needs to be done to move the needle on preventing and reducing the burden of CVD.

One area in particular that merits special attention is the management of dyslipidemia. Despite mounting evidence, national metrics of low-density lipoprotein cholesterol (LDL-C) measurement and treatment remain unacceptably low for primary and secondary prevention despite the clearly established role of LDL-C in the development and recurrence of CVD.[3] In the present study by Colantonio et al[4] in this issue of *JACC: Advances* approximately 30% of Medicare beneficiaries had their LDL-C measured within 90 days after discharge for myocardial infarction. This rate differed by race, geographic location, and Medicare program, with non-Hispanic Black individuals, individuals residing in West North Central America, and individuals with Medicare fee-for-service coverage without pharmacy benefits having the lowest rates of LDL-C measurement within the 90-day period.

The 2018 American Heart Association/American College of Cardiology/Multisociety guideline recommends lipid measurement 4 to 12 weeks after initiation of LDL-C–lowering therapies as a Class 1A recommendation. Furthermore, an LDL-C threshold of ≥70 mg/dL to intensify treatment with lipid-lowering therapy is recommended for secondary prevention.[5] In one predictive model in 56,230 patients with known atherosclerotic CVD, achieving an LDL-C concentration ≤70 mg/dL would prevent 734 clinical events including myocardial infarction, stroke, and coronary revascularization in 1 year.[6] The 2022 American College of Cardiology Expert Consensus Decision Pathway on the Role of Nonstatin Therapies provides robust evidence and recommendations for clinicians that achievement of a more stringent LDL-C therapeutic threshold of <55 mg/dL is associated with a lower cardiovascular event rate compared with higher LDL-C levels.[7]

The present study demonstrates how far our current clinical practice strays from current guideline recommendations, with less than one-third of Medicare beneficiaries meeting the recommendations for timely lipid testing. Colantonio et al assert that timely lipid testing is an important first step that could help mitigate the clinical inertia associated with

*Editorials published in *JACC: Advances* reflect the views of the authors and do not necessarily represent the views of *JACC: Advances* or the American College of Cardiology.

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The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the Author Center.

ISSN 2772-963X https://doi.org/10.1016/j.jacadv.2023.100749

prescription of lipid-lowering therapeutics and reduce recurrent cardiovascular events. In a study of more than 1 million patients in the Veterans Affairs Health System, patients with one or more lipid panels were more likely to be initiated on statin therapy compared with patients without a lipid panel. Additionally, in multivariable-adjusted analyses, performance of lipid panels was independently associated with intensification of lipid-lowering therapy in a dose-dependent manner. Simply checking a lipid panel was associated with improved initiation and intensification of lipid-lowering therapy. The recent joint clinical perspective between the National Lipid Association and American Society for Preventive Cardiology articulates the importance of reinstating LDL-C as a quality metric to optimize lipid management and reduce cardiovascular morbidity and mortality.[3] Unfortunately, in contrast to the quality metrics for hypertension and diabetes, which include measurement of blood pressure and hemoglobin A1C, the current quality metrics for cholesterol management do not include measurement of LDL-C but focus only on statin treatment.[3]

Delays in lipid measurement and treatment are associated with increased adverse cardiovascular outcomes and greater socioeconomic burden that disproportionately affects women, racial and ethnic minorities, and individuals of lower socioeconomic status, thereby worsening health care inequities.[8-11] Standardized quality metrics for measuring and treating all modifiable CVD risk factors, including LDL-C, could not only reduce CVD burden but help reduce disparities in health care. Implementation of lipid measurement metrics has beneficial effects for patients and clinicians including: 1) assessing the efficacy of and response to the prescribed therapeutic regimen; 2) identifying nonadherence and providing the opportunity for open communication regarding nonadherence; and 3) mitigating health care inequities by applying standardized metrics to all patients. Future studies to assess gaps in optimization of lipid and other modifiable CVD risk factors may consider addressing specific factors contributing to clinical inertia in lipid testing and prescription and testing strategies to mitigate them.

The burden of CVD affects every aspect of life—social, emotional, financial, and physical. Optimizing the cardiovascular health of our society remains a priority, and one important way forward is to incorporate into quality metrics the assessment and management of the major modifiable CVD risk factors, including measurement of LDL-C.

FUNDING SUPPORT AND AUTHOR DISCLOSURES

Dr Ballantyne has received consulting fees from Abbott Diagnostics, Amarin, and Amgen; and research grant support from Abbott Diagnostic, Akcea, Amgen, Esperion, Ionis, Novartis, Merck, Regeneron, Roche Diagnostic, and Novo Nordisk. Dr Agarwala has reported that she has no relationships relevant to the contents of this paper to disclose.

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KEY WORDS cardiovascular disease, LDL-C, prevention, quality metrics