

CLINICAL DECISIONS

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Starting Statins — Polling Results

Joann M. Schulte, D.O., M.P.H., Carla S. Rothaus, M.D., and Jonathan N. Adler, M.D.

Controversy erupted last fall when new guidelines from the American Heart Association and American College of Cardiology altered recommendations for cholesterol-lowering statin medications. In April, we presented a clinical scenario in which Stephen, a 52-year-old jogger and smoker whose 10-year risk of a cardiovascular event, calculated according to the new guidelines, was 10.9%, was seeking guidance from his physician on lowering his risk.¹ Readers were asked to decide among three options: not starting statin therapy, starting statin therapy and monitoring the low-density lipoprotein (LDL) cholesterol level, or starting statin therapy without monitoring the LDL cholesterol level.

The new guidelines assess risk and recommend that after discussion of the risks and benefits of statin therapy and the patient's individual preferences, statins should be started in persons whose risk of a nonfatal heart attack, stroke, or death from atherosclerotic heart disease in the next 10 years is at least 7.5%. The new risk-factor calculation takes into account sex, age, race, total cholesterol level, HDL cholesterol level, systolic blood pressure, treatment for high blood pressure, diabetes, and smoking. No target on-treatment LDL cholesterol levels are specified in the guidelines; blood tests to monitor LDL cholesterol levels are recommended at certain intervals to confirm adherence to treatment and response to therapy.

Most of the readers who voted would not recommend altering Stephen's care. Readers from 97 countries cast 1641 votes; overall, 57% (931 readers) favored not starting a statin at all, 26% (432) would start therapy but monitor the LDL cholesterol level, and 17% (278) would start a statin and not monitor the LDL cholesterol level. This distribution of voting was rather independent of geography: among readers from the United States and Puerto Rico (one third of the total number of readers who voted), 50% chose not to start a statin, 29% voted to start a statin and monitor the LDL cholesterol level, and 17%

voted to start a statin without monitoring. Outside the United States and Puerto Rico, the rates were similar — 60%, 25%, and 15%, respectively.

Several themes that speak to this voting pattern emerged from the 86 comments submitted by readers. The majority of readers advocated strongly for lifestyle modifications, including improved diet and exercise, stress management, and, most of all, smoking cessation. They stated that statins should not be considered to be a substitute for interventions that, if adopted, would contribute much more substantially to lifelong health for Stephen, and they observed that the new guidelines recommend a thorough discussion about risk reduction before a statin is prescribed. Some were concerned that statin treatment might actually reduce the motivation to adopt a healthier lifestyle. Many acknowledged a lack of consensus regarding how long physicians should wait before they initiate statin treatment. A minority of commenters noted the shortcomings of excessive reliance on an imperfect risk calculation.

Readers emphasized the physician's responsibility to help patients understand their individual cardiovascular risk factors and the risks and benefits of all treatment options. Many mentioned the need for shared decision making. Several readers wanted to avoid the use of statins because of the risk of adverse effects, and a few recommended additional assessments — calculation of the coronary calcium score, measurement of high-sensitivity C-reactive protein levels, and carotid ultrasonography — to help with risk assessment.

A minority of readers recommended starting statin treatment, observing that sustained lifestyle modifications, although desirable, are often difficult to achieve. This group believed that Stephen's risk factors, in particular the LDL cholesterol level, justified starting statin treatment immediately. Many readers — from both the "treat" and the "don't treat" camps — stated that management should be individualized, tailored to the

likelihood of a particular patient's adherence to a treatment regimen, whatever it may be, and based ultimately on the patient's wishes.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

1. D'Agostino RB Sr, Ansell BJ, Mora S, Krumholz HM. The guidelines battle on starting statins. *N Engl J Med* 2014;370:1652-8.

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