The NEW ENGLAND JOURNAL of MEDICINE

The JUPITER Trial: Will You Change Your Practice?

Open for Comments
November 9–26, 2008

On November 9, 2008, we published an article and an accompanying editorial on the results of JUPITER, a large randomized trial in which patients without hyperlipidemia who were receiving rosuvastatin had significantly fewer cardiovascular events than did patients receiving placebo. In Clinical Directions, a new interactive feature, we invite you to respond to questions raised by the results of the trial, to contribute your own thoughts, and to read the comments of your peers. Polling and commenting close on November 26, 2008.

Contribute your thoughts below

COLLAPSE VIEW

The JUPITER Trial: Will You Change Your Practice?

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In patients with hyperlipidemia, treatment with statins reduces cardiovascular risk, even in people without a history of cardiovascular disease.[1] However, nearly half of all first cardiovascular events occur in people whose low-density lipoprotein (LDL) cholesterol levels are below current thresholds for lipid-lowering therapy.[2-4] Therefore, recent research has sought to refine our ability to identify people who are at risk and to find interventions capable of reducing that risk.

In the Justification for the Use of Statins in Primary Prevention: an Intervention Trial Evaluating Rosuvastatin (JUPITER; ClinicalTrials.gov number, NCT00239681) published in the *Journal*,[5] Ridker et al. adopted the unusual approach of selecting a treatment population according to high-sensitivity C-reactive protein levels. This strategy was based on two observations: high-sensitivity C-reactive protein has been shown to be an independent predictor of cardiovascular events[1,6] and statins reduce levels of both high-sensitivity C-reactive protein and LDL cholesterol.[7,8]

The subjects enrolled in JUPITER were apparently healthy people with LDL cholesterol levels of less than 130 mg per deciliter (3.4 mmol per liter) but with high-sensitivity C-reactive protein levels of 2.0 mg or more per liter. Participants were randomly assigned to receive either rosuvastatin, 20 mg orally each day, or placebo. The primary end point was the composite of nonfatal myocardial infarction, nonfatal stroke, hospitalization for unstable angina, arterial revascularization, or confirmed death from cardiovascular causes. The trial was stopped, after a median follow-up period of 1.9 years, by the data and safety monitoring board. The rates of the primary end point were 0.77 and 1.36 per 100 person-years of follow-up in the rosuvastatin and placebo groups, respectively.

So, in at least one trial, a statin has been shown to improve outcomes for patients with lipid levels that have been considered optimal but with elevated levels of high-sensitivity C-reactive protein. Some new questions logically follow, concerning the role of screening testing and the appropriate approach to therapy. Expert panels will develop recommendations on these issues derived from data from JUPITER and from trials yet to be performed. But in the interim, clinicians will have to make decisions on the basis of their reading of JUPITER and discussions with colleagues.

To help jump-start those discussions, we pose two questions raised by JUPITER and offer you the chance to express your opinion — and then see how your colleagues answered. We do not pretend to know the "right" responses, but we are interested in your opinion and any additional comments you wish to make.

REFERENCES

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3. Grundy SM, Cleeman JI, Merz CNB, et al. Implications of recent clinical trials for the National Cholesterol Education Program Adult Treatment Panel III Guidelines. Circulation 2004;110:227-39.

4. Ridker PM, Rifai N, Rose L, Buring JE, Cook NR. Comparison of C-reactive protein and low-density lipoprotein cholesterol levels in the prediction of first cardiovascular events. N Engl J Med 2002;347:1557-65.

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Do you believe, on the basis of the JUPITER trial results, that the approach to laboratory screening of apparently healthy adults should be changed?

- Yes, the trial results indicate that the approach to laboratory screening should be changed.
- No, the trial results do not provide a basis for a change in the approach to laboratory screening.

Do you believe, on the basis of the JUPITER trial results, that the therapeutic use of statins in apparently healthy adults should be changed?

- Yes, the trial results indicate that the therapeutic use of statins should be changed.
- No, the trial results do not provide a basis for a change in the therapeutic use of statins.

We invite you to add a comment to explain your position.

VIEW ALL (1)

Contribute your thoughts

1 of 1

NEJM
Other
Disclosure: None

Boston, Massachusetts
November 9, 2008

Please use the form below to add a comment.

Contribute Your Thoughts

NOTE: All fields except Institution are required.

First Name

Last Name

E-mail (Will not be displayed or shared. Privacy policy)

Retype E-mail

Position
Select...

Institution (optional)

Country
Select...

City

State / Province

Relevant Financial Associations
Select...

Subject

Comment (limit to 250 words)

PREVIEW

All comments will be screened for appropriateness. Comments may be edited. We will accept comments through November 26, 2008, and we will attempt to post all comments within 48 hours of submission. The volume of comments we receive may affect the number subsequently posted. Names and other identifying information will be included with comments; e-mail addresses will not be included.

Respondents

Physician -- Cardiologist (0)
Physician -- Non-Cardiologist (0)
Medical Student (0)
Resident or Trainee (0)
Other Health Care Professional (0)
Other (1)

Respondent Locations

United States (1)
Other (0)

Comments and questions? Please contact us.