



Clinical Question

Did Jupiter¹ prove we should be ordering hs-CRP to help decide who gets a statin for cardiovascular prevention?

Evidence:

- Jupiter is a randomized control trial in which almost 90,000 primary prevention patients were screened to find 17,802 with a LDL<3.4 mmol/L and high sensitivity CRP (hs-CRP) \geq 2mg/L.
- Patients were randomized to 20mg rosuvastatin a day (Brand name: Crestor) or placebo.
- The trial was stopped early after a median follow-up of 1.9 years due to benefit.
- The combined CVD outcome occurred in 2.8% of the placebo group compared to 1.6% rosuvastatin (Number Needed to Treat (NNT) 82) while mortality went from 2.8% to 2.2% respectively (NNT 182).
- There were more new cases of diabetes in the rosuvastatin group (3% vs 2.4%). Overall a good design but potential biases include:
 - industry funding,
 - run-in,
 - stopping early, and
 - large number of excluded patients.

Context:

- Unfortunately, Jupiter brought virtually nothing new to the table.
- We know primary prevention patients benefit from statin therapy in combined cardiovascular outcomes (NNT 73 - 4 yrs)² and mortality (NNT 228 - 3.3 yrs).³
- Some might argue that the enrolment criteria demonstrated the utility of CRP, especially with a low LDL:
 - First, CRP levels were not part of the randomization so we can draw no conclusion regarding causation.
 - Second, without CRP levels, most patients in Jupiter were in the intermediate risk group (a 10%-20% risk of MI or cardiac death over 10 years) and the higher the baseline risk the more the patient benefits.
 - Third, the mean CRP in Jupiter would add only about 1-3% to the calculated risk⁴ and would likely have made little to no effect on treatment decisions.

- Fourth, the ASCOT trial already demonstrated that statins reduce combined CVD endpoints from 9.5% to 7.5% (NNT 50) over 3.3 yrs in intermediate risk patients with a low LDL.5

Bottom-line: Jupiter should not encourage CRP testing or modify your prescribing of statin therapy.

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1. [NEJM 2008;359:2195-2207](#)
2. [Arch Intern Med. 2006;166:2307-2313](#)
3. [Arch Intern Med. 2005;165:725-30](#)
4. <http://www.reynoldsriskscore.org>
5. [Lancet 2003; 361: 1149-58](#)

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