Reviewer's report

Title: Socioeconomic and racial/ethnic differentials of C-reactive protein levels: a systematic review of population-based studies

Version: 1 Date: 18 June 2007

Reviewer: Stephen Nicholls

Reviewer's report:

The concept that atherosclerosis is a chronic inflammatory process has stimulated the use of inflammatory biomarkers to predict cardiovascular risk. The non-specific marker CRP has received particular attention given its ability to predict clinical outcome, in a large number, but not all, studies. This is further confounded by the lack of evidence that CRP plays a role in formation and propagation of atherosclerosis. Regardless, considerable interest has focused on what are the factors that influence CRP and its ability to predict risk. In the current analysis Nazmi and Victora have investigated 32 population based studies which investigate the relationship between CRP levels and either socio-economic position or ethnicity. The overwhelming majority of these studies demonstrate a relationship whereby higher CRP levels are observed in groups with lower socio-economic position or non-white race. This is a well performed analysis with robust findings. The paper is well written, albeit long. The length, in fairness, does reflect the breadth of evidence provided, although a case could be made to urge the authors to shorten the paper where possible. A number of additional points should be addressed.
1. Given that CRP is typically distributed in a non-parametric fashion can the authors expand what they did with papers describing arithmetic means, which is not appropriate.
2. What this really highlights is an association with low level inflammation
3. What are the implications for risk prediction?
4. It should be made clear that this says nothing about cardiovascular risk per se.

What next?: Accept after discretionary revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I have received honoraria from AstraZeneca, Pfizer, Merck Schering-Plough and Takeda. I have received consulting fees from AstraZeneca, Pfizer, Roche and Novo Nordisk. I have received research fees from Lipid Sciences.