Reviewer’s report

Title: Outcomes following Percutaneous Coronary Intervention and Coronary Artery Bypass Grafting Surgery in Chinese, South Asian and White Patients with acute myocardial infarction: Administrative data analysis

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Reviewer: Johann Auer

Reviewer’s report:

The authors compared 30-day and long-term mortality, recurrent AMI, and congestive heart failure in South Asian, Chinese and White patients with AMI who underwent PCI and CABG.

Based on the results the authors concluded that Chinese and South Asian patients with AMI and PCI or CABG had worse outcomes compared to their White counterparts. Further studies are needed to confirm these findings and investigate potential underlying causes.

The paper is well written. However, there are severe shortcomings in design and presentation of this study that have to be addressed:

The data were assessed from 1999 to 2003. The FU would be up to 10 years but the authors describe a maximum FU of 4 years? Please explain.

The absolute number of outcomes with patients groups is not reported and should be added.

What was the definition of MI? Did the definition change during this study? How did the authors define MI? How many had NSTEMI and STEMI?

Most patients with MI were treated with thrombolysis in 1999. Did the authors analyse patients and their outcome after thrombolysis?

It remains unclear to the reviewer how differences in baseline characteristics were corrected for? Which lever of difference resulted in inclusion of a individual parameter in a multivariate model.

Are the results derived from fully adjusted statistical models? Did the authors perform sensitivity analyses?

Background: The authors state that “in patients with AMI whose coronary anatomy appears unsuitable for PCI, CABG is indicated. However, some patients have to be treated conservatively according to patients and anatomical characteristics. This should be added.

Ethnicity data do not result from self declaration. This is a severe shortcoming
considering that the number of patients in the smaller groups is rather limited.

Baseline characteristics are severely different between ethnical groups. Thus, confounders that remain despite statistical adjustment may invalidate results.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

declare that I have no competing interests