Reviewer’s report

Title: EuroScore 2 for identification of patients for transapical aortic valve replacement - a single center retrospective in 206 patients.

Version: 1 Date: 13 May 2012

Reviewer: guido Dohmen

Reviewer’s report:

1. Is the question posed by the authors new and well defined?
Yes

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
yes

3. Are the data sound and well controlled?
yes

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
no

6. Do the title and abstract accurately convey what has been found?
yes

7. Is the writing acceptable?
yes

The authors report on their experience with the new EuroScore 2 for identification of patients suitable for transapical aortic valve replacement. The subject is up to date and of clinical significance.

The authors have performed a sophisticated statistical analysis but despite a plethora of data fail to work out the merit of EuroScore 2, which should be the main subject of the study according to the title.

Major Compulsory Revisions

1. The results- and discussion parts are somewhat difficult to read. The analyzed issues, i.e. predicted mortality, sensitivity, specificity, cut-off values, Youden’s index, are inconsistently compared between the different scores. “Discriminate power and calibration” are raised as new aspects in the discussion part. It would be easier to understand if they would be directly opposed with the aforementioned issues.
2. In the discussion the results of the study are not really discussed. Especially the advantages or disadvantages of the EuroScore 2, the main issue according to the manuscript title, are not clearly mentioned. Only the abstract-conclusion is about the better correlation of EuroScore 2. From numeral values one gets the impression that the ACEF score performs best.

3. The conclusion section should be concise and short (like the abstract conclusion). It contains issues better considered as limitations or future perspectives.

Minor Essential Revisions
1. There are no references about the new EuroScore 2.
2. Sensitivity and specificity of the EuroScore 2 should be included into the results-section of the abstract.
3. Why are no transfemoral cases included? Is this procedure not performed, are these patients excluded because it is a surgical unit study?
4. Many references are about CoreValve, thus transfemoral TAVI, which is known to reflect be a different patient population.
5. It should be mentioned that each patient treated with the alternative procedure, i.e. TAVI instead of cAVR and vice versa, would have experienced a different mortality.
6. The authors convey the impression that the log EuroScore 1 served as a true estimate of operative mortality of cAVR/AVI patients. It is known that the absolute values of the log EuroScore 1 score do not reflect the true operative mortality, but they serve more as an estimate to classify patients as high risk rather TAVI candidates (>20) and lower risk rather cAVR patients.
7. Material and Methods-Section: …that were later included into the aforementioned guidelines…. There are no aforementioned “guidelines”, (5) is a review of the literature, (2) are no guidelines on TAVI.

Discretionary Revisions
1. TAVI is rather an aortic valve implantation than a replacement.
2. Not only the American, but also the newer European guidelines on patients with valvular heart disease should be considered and mentioned: A Vahanian et al.: Guidelines on the management of valvular heart disease. European Heart Journal (2007) 28, 230–268

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests.