Reviewer’s report

Title: The Glasgow Prognostic Score, an inflammation based prognostic score, predicts survival in patients with hepatocellular carcinoma.

Version: 2 Date: 10 October 2012

Reviewer: Ioannis Gioulbasanis

Reviewer’s report:

The paper by Akiyoshi Kinoshita et al. evaluates the prognostic value of GPS and mGPS in patients with hepatocellular carcinoma. This is a field of controversy as there is no established universal prognostic tool used for the stratification of these patients. The authors adequately support their hypothesis; however there are some issues to be addressed.

Major Compulsory Revisions

The 2 scores, GPS and mGPS, are interrelated and thus a separate multivariate analysis should be performed evaluating each score at a time.

Minor Essential Revisions

1. Page 5, line 11. Authors used interchangeably the terms “GPS”, “The GPS”, “mGPS”, “GPS score(s)” and “GPS system”. In order to avoid confusion the terms “GPS” and “mGPS” should be used throughout the text.

2. Page 5, line 18. mGPS was opposed to GPS due to the observation that hypoalbuminaemia without an elevated C-reactive protein concentration was rare and hypoalbuminaemia on its own was not associated with poor survival (McMillan, 2012). This should be stated within text and the sentence “it had greater consistency...” should be omitted.

3. Page 6, line 13. Authors should explain why it is meaningful to evaluate a prognostic in a mixed group of patients with early (curable) and advanced (incurable) disease considering that these are two distinct groups in terms of survival prediction and - more important - in terms of therapeutic approaches.

4. Page 8, line 11. A box plot illustrating albumin and CRP levels for the total cohort and for the GPS and mGPS groups, separately, would be informative as it will provide an image of the 2 contributors of the 2 scores.

5. Page 11, line 15. The number of patients received systemic therapy should be also reported in this section.

6. Page 12, line 5. Table 1 does not include mGPS classification. Please add.

7. Page 12, line 5. Albumin and CRP are both used to generate GPS. Thus direct correlations of these laboratory values with the score should be avoided.

8. Page 12, line 16. These numbers are somewhat confusing. Since 73 patients
were dead, the number referring to the "most common cause of dead" (N=137) seems to be incorrect. However the sum of the causes of death provided matches with the total cohort of the evaluated patients (N=150). This needs to be clarified.

9. Page 14, line 13. In accordance, albumin and CPR should be removed from the multivariate model as they directly influence the values of the utilized scores.

10. Page 18, line 7. Since there are no data provided, assumptions concerning treatment outcomes and selecting patients for therapy should be avoided.

11. Page 20, line 11. Restricted sample size is another limitation of this study and should be stated.

Discretionary Revisions

1. Page 20, line 5. TNM staging system is also proposed for outcome prediction following resection (Vauthey JN, 2010) and could be commented in this part of the discussion.

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.