Reviewer's report

Title: Brain natriuretic peptide precursor (NT-pro-BNP) levels predict for clinical benefit to sunitinib treatment in patients with metastatic renal cell carcinoma

Version: 2 Date: 28 May 2010

Reviewer: Alistair W Stewart

Reviewer's report:

Thank you for the advancements made to your manuscript.

Minor Essential Revisions

In the results you show an analysis that includes baseline levels and the change to 15 days. These two measures will be highly negatively correlated even if the baseline and the 15 day measures are independent. This is known as regression to the mean. Using variables of this type as explanatory variables in a regression model needs very careful interpretation. The sentence "Baseline NT-pro-BNP levels were not statistically significant when compared to change at 15 days (p-value=0.2912 and 0.0274 respectively)." does not make sense and does not convey the necessary care. My interpretation based of the information presented is that both the baseline measure and the change are associated with status but, by use of the logistic regression, it appears that the measure, change in the first 15 days, has most of the information in separating the two groups.

In the abstract please remove the redundancy from the sentence “Median progression-free survival was 12.0 months in patients with less than 1.5 fold increases or lower or equal to baseline NT-pro-BNP levels (n=22) and 3.9 months ...". The words “or lower or equal to baseline NT-pro-BNP levels” can be removed.

In table 2 please clarify whether "Mean fold change" at each time point is in relation to baseline.

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

Quality of written English: Acceptable

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

Declaration of competing interests:

'I declare that I have no competing interests'