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: 1 Date: 30 January 2010

Reviewer: Alistair W Stewart

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Major Compulsory Revisions

A measure of variability for the measures displayed in table 1 is necessary. It would appear as if the distribution of the plasma NT-pro-BNP measures must be very skewed, given that means of 86 and 420 could not be demonstrated as differing. It would therefore be better to report medians and quantiles and either test their difference using a nonparametric test or transform them appropriately. The t-test is probably a most inappropriate test. It would very helpful to the reader if the actual levels of plasma NT-pro-BNP (with quantiles) in each column were given in table 1 along with the fold changes.

How many subjects had an increase in plasma NT-pro-BNP at 15 days compared to the same or decline? Placing numbers of the two survival curves at the beginning, 10 and 20 months would also be very useful. The curves could have confidence intervals on them but the numbers are probably sufficient.

There needs to be discussion on why the disease progression group starts with low values that become more similar to the clinical benefit group. This seems an unusual situation when the point of difference is the rate at which the mean values approach one another.

The abbreviation PFS is used in the abstract, please use the words in full.

Level of interest: An article of importance in its field

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'