Reviewer's report

Title: Response to Imatinib Therapy is Inferior for e13a2 BCR-ABL1 Transcript Type in Comparison to e14a2 Transcript Type in Chronic Myeloid Leukaemia

Version: 0 Date: 03 Nov 2018

Reviewer: Susan - Branford

Reviewer's report:

The paper describes a small study from Northern Ireland where patients with e13a2 BCR-ABL1 transcripts had marginally better outcomes in terms of molecular response at 12 months. This is consistent with recent publications. In general, the paper is well written.

1. The method used for quantitative PCR is inadequately described since only a plasmid is referenced. The method should be described plus the method of conversion to the international scale. This is critical since the data is largely based on molecular data and the assessment of milestone molecular responses according to the ELN. Please also provide a reference for the gel electrophoresis method or include the primer sequences.

2. Figure 1. Please explain what 12 month exc changer means. There is no legend to explain the color coding.

3. Figure 2 would be better shown as cumulative incidence graphs with appropriate competing risks.

4. Figure 2C. How was the probability graph generated? This is not mentioned in the statistics section. Please include the P value and indicate whether the x axis represents months since achieving MMR.
5. Line 200-204. The text is quite confusing. "There was no significant difference evident between the two groups on comparison of the percentage of patients losing MMR having previously achieved it at any stage. (e13a2: 25.0%, e14a2: 22.5%) however there was a trend towards earlier achievement in the e14a2 group. (e13a2: 9.33months, e14a2: 15.4months) ". Is this a median time to achievement? This would be evident from a cumulative incidence graph.

6. Figure 2C. There are a substantial number of patients who did not maintain MMR. It is not clear if these patients developed resistance or whether this was a transient rise above MMR. Please clarify.

7. Figure 4. Please outline what events were included for EFS.

8. Discussion line 300. What does 'real world population' mean?

Minor point

1. Statement and reference line 89: "This can represent clonal evolution with acquisition of a mutation in the genomic sequence encoding the BCR-ABL1 transcript in some instances.(10)"
The reference is incorrect since it does not refer to the typical location of the BCR-ABL1 mutations, which is the kinase domain, not the SH2-SH3 domains. Please provide an appropriate reference for kinase domain mutations.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes
Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review? 
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English 
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests 
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal