Reviewer’s report

Title: Chronic myeloid leukemia incidence, survival and accessibility of tyrosine kinase inhibitors: a report from population-based Lithuanian haematological disease registry 2000-2013

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Reviewer: Martin Hoglund

Reviewer's report:

This is an interesting well-written paper reporting the incidence, relative survival, time trends and uptake of TKIs in CML in Lithuania. Data are based on the population-based Lithuanian national Hematology Registry and encompasses the period 2000-2013. Some of the findings lack novelty, i.e. similar trends and findings have been reported from other registries. However, the comparison of this report from a less affluent European country with recent registry reports from more affluent countries is of clear interest.

I have some comments and questions to the authors

1. Introduction, line 6: "CML patients need to stay on TKI for the rest of their life". This dogma has been questioned by the reports from the STOP-studies performed by the Mahon group and others. I would therefore recommend the authors to slightly modify this sentence.

2. Methods, p7. Reporting of Ph and BCR-ABL status was not mandatory until from the year 2010. As stated by the authors, this is an obvious weakness of the registry. However, do the authors, from other sources/studies, have any idea of what (approximately) is the proportion of BCR-ABL neg disease from the first years of the registry?

3. "Clinical symptoms" are reported to the registry. Do the authors have any data on performance status and/or co-morbidities? These kind of data could be interesting in later discussing the low uptake of TKIs in the elderly population.
4. Methods, Do the registry contain data on the proportion of patients progressing to AP/BC? These kind of data could strengthen the paper.

4. Results, line 7-8. The authors do not mention second line TKIs (nilo, data). Are they not used at all as first line or second line during the most recent period of analysis (2010-2013)?

5. Table 4 and Discussion. The authors compare the RSR with that in studies from "Eastern Europe". What is actually meant by "Eastern Europe" in this context, please specify!

6. The authors emphasise that the introduction and uptake of TKIs is the most important factor explaining the improvement of prognosis in CML. I do agree. However, some others factors such as better monitoring and organisation of the care of CML patients may also have contributed to the improvements. Perhaps, this deserves mentioning in the Discussion.

7. Discussion. The authors discuss, quite extensively, the merits of population-based registry studies. I agree. However, it would be prudent to also mention the potential weaknesses of such studies, such as the lack of monitoring of data as we'll as of more detailed outcome data (as compared to clinical trials).

8. The Discussion is otherwise well-balance but a bit lengthy, in particular the last paragraph ("conclusion") could be condensed.

9. References. An interesting population-based report on CML treatment and outcome in Bosnia, another less affluent European country, was recently published in BJH (Amina Kurtovic-Kozaric et al, BJH, published online: 11 NOV 2015). This paper deserves mentioning in the Introduction (or Discussion).
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

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If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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