Reviewer's report

Title: Epidemiology aspects in 11,507 Mexican children with cancer under a national public health insurance program Running title: Childhood cancer among Mexican children

Version: 2 Date: 26 May 2014

Reviewer: Eva Stelinarova-Foucher

Reviewer's report:

This paper relates to the potentially important message about childhood cancer burden in Mexico. However, the way the reported figures were derived is not clearly described. Although the aim of this paper is to describe the epidemiological characteristics of cancer in Mexican children, a large proportion of the text describes the management of these children.

Under the assumption that all the listed authors had worked hard on this paper, it might be beneficial to include another author experienced in reporting cancer registry data and interpretation of the ensuing results.

MAJOR COMPULSORY REVISIONS:

1. The population at risk, used as a basis for calculation of the incidence rate, is not clearly described. If we assume that the population at risk is all the insured persons (representing about a half of Mexican population), then a precise description of this population should be provided; including how it differs from the general population of Mexican children. The insured population is clearly a selected section of population and the selection criteria should be described succinctly in Methods section. In particular, the reason for admission to the system as well as release from the system should be described.

2. It should be explicitly described which tumours are covered by the insurance system and if there were any exclusions of malignant tumours or inclusions of non-malignant tumours.

3. The calculated incidence rates seem to be providing the crude incidence, which makes a comparison with incidence rates in other populations difficult. Age-standardised incidence rates should be provided.

4. Standard age-groups for which population data are available in most countries are 5-year age groups. In this paper incidence rates are calculated for age-group 15-18, which is 4-year age group. Again, these rates cannot be compared to those reported in other countries.

5. The definition of the prevalence on page 6 is incorrect and unclear. Looking at the tables, the numbers of cases are referred to as prevalence, which is incorrect.

6. Survival seems to be estimates as a simple proportion of those alive 48 months after the diagnosis of all patients, but this is again not comparable with
the results of survival from elsewhere. Reporting the survival data may be a subject of a separate communication with properly described methods of follow-up and the methods of survival analyses.

7. The definition of mortality also requires a revision. The method of calculation of mortality rates is not clearly described.

MINOR ESSENTIAL REVISIONS

8. English: both style and terminology needs revision. More information should be added in Methods section (see above) and some repetitions of the text currently present in the paper removed.

9. Page 3, reference to Globocan: Globocan data do NOT result from a survey. The cited figures and the reference should be updated according to the Globocan 2012 release.

10. Some of the cited references do not convey the message they are deemed to support in the text. E.g. references 10, 11 and 14 do not deal with increasing incidence rates in age 0-18 in developing countries.

11. The 3rd dimension used in Figure 3 does not add anything to a 2-dimensional figure: no depth is needed for the columns.

12. A clearer presentation should be sought for data in Figure 3. For example, there is no need to connect the incidence rates across different provinces in Mexico.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

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

Declaration of competing interests:

No conflict of interest to declare.