Reviewer’s report

**Title:** The epidemiology of bone cancer in 0 - 39 year olds in northern England, 1981 - 2002

**Version:** 1  **Date:** 7 January 2010

**Reviewer:** sean scully

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The authors report data obtained from a specialized database that has been analyzed for the incidence and survival of patients aged 0-39 with bone cancers. As such I think the goals of the manuscript are fairly limited. I do have several concerns with the data and its presentation:

1) The data presented is consistent with the data that is contained within the NCI SEER database (OGS incidence 2.97 vs 3.63 and survival of 51% vs 62%)

   Interestingly the SEER database also indicated an increase in incidence of OGS but an order of magnitude smaller than this study. This may reflect the size of the population analyzed and statistical variation.

2) The authors indicate that the upper age limit was selected because these patients would likely be included on clinical trials. While I understand the reasoning here, the cutoff is artificial and leads to erroneous statements such as pg11, pp3, In 1 referring to survival in older adults. Generally other manuscripts use this term to refer to 65+yo.

3) The group of other tumors is never defined and should be omitted from the analysis

4) I am concerned that the clinical experts deemed treatment data inaccurate (pg 9 pp1). If this means that the data were not recorded accurately and one assumes that each patient was treated in a similar fashion with standard protocols, then the conclusions regarding survival may be reasonable. However this is a large assumption and really causes the reviewer to question the credibility of the data.

5) Lastly grouping data on different diseases that are treated distinctly only serves to dilute the message. I would recommend a disease specific analysis of the database with increased depth to help the readership understand the reason for the trends that have been identified.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:
'I declare that I have no competing interests'