Reviewer's report

**Title:** Incidence, Mortality Patterns and 5-year Relative Survival Ratio of Prostate Cancer among Residents in Singapore from 1968 to 2002

**Version:** 1  **Date:** 24 April 2008

**Reviewer:** Mette Nørgaard

**Reviewer’s report:**

The manuscript “Incidence, Mortality Patterns and 5-year Relative Survival Ratio of Prostate Cancer among Residents in Singapore from 1968 to 2002” addresses one of the major cancer types and further epidemiological knowledge on this common but complex malignancy is welcomed. I have, however, some major comments which should be addressed before the paper is suitable for publication.

**Major Compulsory Revisions:**

1. In the conclusion of the paper the authors state that this is an ecological study. This is the first time the study design is mentioned and actually I did not realize before then that data were not on an individual level. I suggest that this will be specified earlier.

2. In relation to the above mentioned ecological design, I think it would be beneficial to define the denominator used when computing the mortality rates. This could be either “the number of prostate cancer deaths/ number of prostate cancer patient years” or it could be “the number of prostate cancer deaths/ number of men in the population per year”. It is not entirely clear what the authors use in this paper. Moreover, if this is an ecological study – how do the authors retrieve the observed 5-year survival which is used to compute the 5-year RSR?

3. In the abstract, the aims stated for this paper are to examine incidence, mortality and 5-year relative survival ratio (RSR). Yet, the results only describe the incidence and the mortality whereas the conclusion is only based on the RSR. All three aims should be mentioned both in the results and the conclusion sections.

4. Generally, I think the background section of the paper could be a little bit more structured in relation to the aims of this study. There is a very recent paper by Chen et al published in Urology 2008 Mar 25 which suggests that Taiwanese men have a better survival than Western men. This paper could be used as an argument for why it is important to stratify mortality according to ethnicity.

5. In the background section is stated: “HSMR is an indicator that corrects hospital inpatient mortality for case mix differences”. The reference is a not yet published paper – The authors must explain how case-mix differences are
6. Are the authors able to provide an age distribution (median and range) for the 3,613 primary invasive prostate cancer patients included in the study?

7. In the results section the authors should provide the incidence rates of prostate cancer before commenting on the trend.

8. Could the authors provide data on possible changes in the ratio of non-metastatic to metastatic disease might have changed during the time period? This knowledge will be useful in the discussion of the effect of increased use of PSA testing.

9. In the discussion section it is not necessary to repeat the incidence rates which are provided in the results section.

10. The authors state that the death registry in Singapore is almost complete (only about 3% of diagnosed with prostate cancer were missing). If this is correct understood then I do not understand how the increased awareness of prostate cancer should be able to influence the mortality rates. Could the authors elaborate on this?

Minor Essential Revisions

1. Could the authors provide a reference for the statement: “We presented the three groups separately as RSR is known to be affected by the groupings” on page 4 line 7?

2. It would also be nice with a reference to a detailed description of the Ederer II method.

Discretionary Revisions

1. I don’t think the term “attribution bias” is commonly used – could it be replaced?

2. In the tables the percentage increase in the rates (including the p-values) are unnecessary. It is sufficient that these are given in the text.

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests