Reviewer's report

Title: Mode of primary cancer detection as an indicator of screening practice for second primary cancer in cancer survivors: a nationwide survey in Korea

Version: 1 Date: 6 July 2012

Reviewer: Iris Vogelaar

Reviewer's report:

I want to compliment the authors on a very well written and methodologically sound manuscript. I do, however, question the clinical usefulness and added value of the content of the work.

Major Revisions

1. The authors investigate the association between mode of primary cancer detection and second primary cancer (spc) screening in cancer survivors. My concern is whether we really need a study to show this. Could these results not have been predicted with common sense. Also, several studies have shown that screening behavior for one disease is associated with screening for others. Isn't your study just confirming that finding of previous studies with a different set of data? If the results of this study are merely a confirmation of these earlier studies, would it not be clinically better to ask people if they were regularly screened before, instead of asking them whether their cancer was screendetected. That division would better predict future screen behavior.

If the authors disagree with me, I suggest they add a comparison between their study and the studies looking at association between screen behavior for different diseases to the discussion and convince the reader what their study adds to this literature. Also, I would like to suggest discussion about why it is better to ask patients for mode of primary detection instead of their past screening behavior.

2. Page 8: I wondered whether you dilute your effect estimate by also including cancers for which no screening guidelines are issued. According to the guidelines there are only screening recommendations for stomach, colorectal, breast and cervical cancer. So there should mostly only be screendetected cases for these diseases. Interestingly, the percent of liver or lung cancers that are screendetected is higher than for breast, colorectal or cervix. The reasons for this should be discussed.

3. Page 9: The definition for being complete with spc screening is having had an endoscopy in the past 5 years. However, 64% of included cases was less than 5 years after diagnoses so in many instances, the definition of being complete with spc screening could actually measure first primary screening. This should be discussed as a limitation.
4. Page 10: Two multivariate logistic regression models are constructed. The first one follows directly from the introduction and the main research question of the study. It is unclear why the second is constructed. Please add rationale at in the introduction.

5. Page 12: "survivors with 5 years or more since diagnosis were less likely to be screendetected". This is counterintuitive, please explain in the discussion why this might be.

Minor Essential Revisions
1. In the second paragraph on page 7, the authors refer to "these 10 cancer centers" in the first sentence, while the explanation of what these cancer centers are does not take place until in the sentence after. Suggest moving the explanation up to the first sentence.

2. On page 7 the authors state that the aim was to recruit about 200 patients. However, in total almost 2000 patients were included. I think that the 200 patients is a typo.

3. Page 7: To be able to judge generalizability of results it is important that the authors mention how many cancer patients in total fulfilled their inclusion criteria in the 10 cancer centers. In other words, what percent of the total population was sampled.

4. Page 8, top: There are different versions of the SEER staging system. Add which one was used. Why did you decide to use SEER staging and not AJCC staging?

5. Page 8: The methods state that people with regionalized or distant disease were excluded. However, in table 1 it shows that 230 regional cases are included. Explain.

6. Page 11: The text refers to adjusted odds ratios for the univariate analysis. For what have these odds ratios been adjusted. Should it not be unadjusted odds ratios in the univariate analysis?

7. Page 13: in the discussion in the authors mention that a direct comparison with other studies is not possible because most studies have focused on cancer screening in the general population. However, if it truly concerns MOST studies, there are SOME (at least one) studies that do not reflect the general population, so these could be compared to.

Discretionary revisions
1. Abstract: I feel that the strength of the paper is better explained in the sentences: "However, these factors.... not completing appropriate screening for SPC." in the introduction than in the abstract. I suggest to use some of this wording in the introduction in the abstract as well.

2. Table 4: Why have univariate odds ratios in table 3, but not table 4?
Level of interest: An article of limited interest

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