Reviewer’s report

Title: Dietary cadmium intake and risk of prostate cancer: A Danish prospective cohort study

Version: 2 Date: 27 May 2014

Reviewer: Yu-Sheng Lin

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The goal of this study was to investigate the association between dietary cadmium intake and prostate cancer risk in Danish men. Despite the results are not statistically significant, this work have the potential to improve our understanding of cadmium toxicity upon satisfactory revisions.

- Major Compulsory Revisions

1. As exposure misclassification (measurement error) is a major limitation in the current study, it is critical to characterize (or estimate) the magnitudes of variation of dietary cadmium intake (e.g., between- and within-person variation). Such information would help the readers better understand the role of dietary cadmium intake in prostate cancer.

2. Besides dietary intake, cigarette smoking is another major source of cadmium exposure. Given that the results from smoking analysis are not as expected, the authors may consider incorporating the number of cigarettes smoked per day, or number of years smoked into the analyses.

- Minor Essential Revisions

1. Line 146-147: reference(s) is need for “…Cases with Gleason score #7, PSA >15, T-stage #3, N-stage #1, or M-stage #1 were defined as aggressive…”

2. Please clarify the sentence (line 147-148) that how the dataset used in the analysis was finally selected: “…For cases who did not have complete information available, the records were reexamined by a medical doctor for classification.”

3. Line 264-268, stratified analyses by BMI was performed to investigate the influence of endogenous hormone exposure. It is not clear whether participants’ BMI changes over time, and if so, whether such changes will affect the findings.

4. Will the results remain the same using log-transformation of dietary cadmium intake (as a continuous variable)?

Discretionary Revisions

The authors may consider updating their literature search and be aware of some
of the recent relevant publications to support their findings (e.g., Increased risk of cancer mortality associated with cadmium exposures in older Americans with low zinc intake. J Toxicol Environ Health A. 2013;76(1):1-15).

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests.