Reviewer's report

**Title:** Evaluation of National Trends in the Utilization of Partial Nephrectomy in Relation to the Publication of the American Urological Association Guidelines for the Management of Clinical T1 Renal Masses

**Version:** 2  
**Date:** 29 September 2014

**Reviewer:** Kamran Zargar Shoshtari

**Reviewer's report:**

The AUA guidelines were published in 2009, and the authors assessed the guideline uptake from the period immediately after 2009. Perhaps it would be more reasonable to allow some time for better dissemination of the guidelines before making this assessment, i.e. from 2010 to 2012.

NIS does not include data on disease stage therefore despite the exclusions made, it would be impossible to be able to assess the stage of the disease. The authors looked at proportion of NSS performed before and after the guidelines. Therefore although the guidelines are based on T1 disease the manuscript only assesses the proportion of all NSS to RNs. No statements can be made regarding NSS and T1 disease.

What is the clinical significance of race in proportion of partial nephrectomies performed, how does it relate to the AUA guidelines?

More PN’s were performed (35% vs. 29%) but not for CKD III and IV (28.2% vs. 26.3%), but more NSS performed in diabetics and obese patients. HTN increased as well but p=0.08. High risk patients may be receiving more NSS, this seems to be undervalued in the discussion.

As seen in figures, there seem to be a trend in increasing NSS, which can be difficult to link to the publications of the guidelines, particularly that the data is collected at very close proximity to the publication of the guidelines.

How were the variables included in the multivariate analysis? what criteria is used?

The linear regression models are difficult to understand. In the text R2 values are presented which are an expression of how closely data are to the fitted regression line (R-squared = Explained variation / Total variation, ranging from 0 to 1.0). The number is therefore is not the slope of the line. Beta values reflect the slope (not standard Beta either, which are related to Standard deviation changes). This is better seen in the figures.

The authors state that it is disturbing that the NSS proportion is not changes post AUA guidelines, however there is no data presented to assess tumor factors that may affect this. The data shows that NSS in diabetics, obese (and HTN) is increasing. Therefore the fact that CKD does not show a significant increase does not mean this is related to lack of interest in NSS.
There are some assumptions around minimally invasive surgery made in the discussion which are not supported by any data in the manuscript.

Minor revisions
Lines 168 and 187 “In patients receiving PN with pre-existing Stage III and Stage IV CKD … “ is confusing, please clarify.

Level of interest: An article of limited interest

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