Reviewer’s report

Title: INfluence of Successful Periodontal Intervention in Renal Disease (INSPIRED): study protocol for a randomised controlled pilot clinical trial.

Version: 0 Date: 31 Jul 2017

Reviewer: Jochen Raimann

Reviewer's report:

The current manuscript describes the trial design of a pilot study that will inform on the effect of periodontal maintenance treatment and meticulous oral hygiene on progression of chronic kidney disease and morbidity and mortality associated with CKD. The pilot study aims to estimate effect size and serve a power calculation for the main trial.

The paper is well written and proposes an interesting study hypothesis. Some minor points may be considered worthwhile to address:

1) The CKD EPI equation was suggested to predict outcomes more accurately as compared to the MDRD equation (JAMA. 2012;307(18):1941-1951. doi:10.1001/jama.2012.3954) - why was the latter chosen over the former to classify patients into CKD stages? Would a sensitivity analyses make sense to quantify the extent to which (differential) misclassification may have affected the associations?

2) Given the positive effects of ascorbic acid on periodontal health (an effect quite accentuated in CKD5d pts) - did the authors think of these effects? Would a dietary recall or an assessment of vitamin supplements amongst studied patients be a worthwhile?

3) In the light of the longitudinal nature of the study and the assessments at several timepoints over the course of the 18 months study period I would suggest to perform longitudinal analyses using tool such as linear mixed effects models [potentially adjusted for baseline levels, operator/assessor, baseline GFR and other possibly relevant factors (i.e. blood pressure, HgbA1c, etc.)].

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