Reviewer's report

Title: The relationship between proton pump inhibitor use and serum magnesium concentration among hemodialysis patients: a cross-sectional study

Version: 2 Date: 13 March 2015

Reviewer: David Leehey

Reviewer's report:

The authors have submitted a paper that confirms the findings of Alhosaini et al. (Am J Nephrol 2014) that PPIs are associated with lower mean serum Mg levels in HD patients. The paper is clear and well written. However, the way the paper is written it might appear to a reader that theirs is a novel rather than a confirmatory observation. In particular, the statement on P. 8 lines 19-21 is not referenced (it refers to Alhosaini et al., ref 10). The reference number needs to be added. There is validity to their subsequent statement (lines 21-23) that their study adds to the literature by validating this association in a larger and more diverse cohort of HD patients.

Specific Comments:

Major Compulsory Revisions:

Introduction. P. 4, line 19. Do the authors know that all of the patients had little or no urine output, i.e., did they exclude non-oliguric patients or patients with residual renal function. This may be important as diuretics are a risk factor for PPI-induced hypomagnesemia, and this risk appears to still be present in HD patients still taking diuretics. Were any of the authors' patients taking diuretics?

Methods. Were there any other exclusions (see above)?

Results. The authors should add a few more factors to their multivariate analyses. Specifically, they should adjust for diuretic use, Kt/V, nPCR, and possibly serum albumin.

Level of interest: An article of importance in its field

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