Reviewer’s report

Title: Exclusion of pregnancy in dialysis patients: diagnostic performance of human chorionic gonadotropin

Version: 0 Date: 27 Sep 2019

Reviewer: Jessica Tangren

Reviewer's report:

In this manuscript the authors report of use of beta-HCG to exclude pregnancy in ESRD patients of reproductive age. This is an important and interesting manuscript however I have some questions about the patient population and how they defined fertility in their cohort.

AMH levels are expected to be higher in ESRD patients (PMID 29233504). While many dialysis patients are infertile this is because of functional anovulatory cycling (likely related to high prolactin levels among many other hormonal changes) and not low ovarian reserve. I find it very interesting that so many patients in the cohort had undetectable AMH levels and makes me question the generalizability of this HD population. There is very limited data on use of AMH in the CKD/ESRD population so defining "fertility" based on AMH levels is fraught with issues. I think the data in this manuscript is important and needs to be shared however I would not include the analysis based on fertility or make the conclusion that beta-HCG is a reasonable biomarker to exclude pregnancy in the "fertile" population given the current definition of fertility used.

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