Reviewer's report

**Title:** Risk Factors of Short-term Mortality after Acute Nonvariceal Upper Gastrointestinal Bleeding in Patients on Dialysis: A Population-Based Study

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**Reviewer:** Shang-Jyh Hwang

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'Risk Factors of Short-term Mortality after Acute Nonvariceal Upper Gastrointestinal Bleeding in Patients on Dialysis: A Population-Based Study'

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Article in summary

The authors used USRDS dataset to study the associations among demographic characteristics, dialysis-specific features, and comorbid conditions with short-term mortality after ANVUGIB among patients on dialysis. They found the overall 30-day mortality was 10.7% (95% CI: 10.4-11.0). Older age, white race, longer dialysis vintage, peritoneal dialysis, and hospitalized episodes were independently associated with a higher risk of 30-day mortality. They concluded risk factors for 30-day mortality after ANVUGIB among patients on dialysis were distinct from those in non-dialysis populations. Peritoneal dialysis and more years since initiation of dialysis were independently associated with short-term death after ANVUGIB.

Major comment. The authors studied the risk factors associated with the important issue of acute nonvariceal upper GI bleeding in dialysis patients. The study is a continuous work from their prior study on the trends of ANVUGIB. It is well-designed and well-conducted, and the results show important findings for clinical care of dialysis patients. However, there are several points to be further clarified.

- Major Compulsory Revisions

1. This study included prevalent dialysis patients from 2003 to 2007, but they defined prior ANVUGIB history with tracing back to all available claims in database since 1996. Is this the reason why those patients with prior history of ANVUGIB had less mortality due to competing death and lead time bias? If you study the incident ANVUGIB in incident dialysis patients, what the results you would expect compared to this prevalent case study.

2. In the results, the factors associated with short term mortality were mostly similar to the causes of mortality in dialysis patient, and compared to the report of ANVUGIB mortality in general population, the mortality in dialysis patients was 10
times higher. Does it mean that ANVUGIB is a condition secondary to, or coincident with those dialysis complications, thus it has a higher mortality than in general population, which might not be existed in cases from general population? Would you give some comments on discussion part?

3. Since the case numbers in HD are much greater than those of PD, is there any difference in vintage, mean age, etc, that might cause a longer exposure time and risk compared to HD? The possibility of statistical bias due to great difference in case numbers should be addressed.

- Minor Essential Revisions

1. Despite that the authors states that “the algorithm used to identify ANVUGIB episodes had been validated by Cooper et al. [32] and modified by Targowinik et al. [10]”, for a better understanding I would suggest draw a flow-chart to describe the selection of studying population that will make the readers easily catch up the process of study with logic thinking.

2. Please label the page number.

**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:**

No, I do not have competing interests with the study.