Reviewer's report

Title: Disparities of Care for African-Americans and Caucasians with Community-Acquired Pneumonia: A Retrospective Cohort Study

Version: 1 Date: 5 February 2010

Reviewer: Yoon Kong Loke

Reviewer's report:

These are the comments from myself and my graduate student CS Kwok who assisted in the review of the manuscript.

We would like to thank the authors for their submission evaluating disparities of care for African-Americans and Caucasians with Community-Acquired Pneumonia. This population based retrospective study found that there were no differences in treatment between the patients who were discharged based on race but African-American CAP patients had a survival advantage and shorter length of stay.

Major comments

Comment 1:
Depending on the available word count, would it be possible in the abstract to report statistical figures and confidence intervals or p-values so that the effect size and statistical significance can be determine. Where possible, the abstract should show the major finding of the paper with numbers and statistics.

Comment 2:
Please comment to what degree the Veterans Health Administration is generalizable across the population. We presume that there are substantial proportions of patients that are not covered by VHA? If so the generalizability of this study is limited as patients under a different healthcare scheme may have been treated differently?

Comment 3:
As this is a retrospective study, is there any possibility that there were errors in the database. Was any method use to ascertain that diagnosis and outcomes were correct (validation via clinical notes, match to death records, etc?) How are missing values accounted for?

Comment 4:
“We included VHA patients 65 years and older with a discharge diagnosis of pneumonia in fiscal years 2002-2007.”

According to this, only patients that survive hospital admission are included in this analysis. Therefore all patients in this analysis must have survived the
hospital period. Presumably to capture inpatient mortality, the inclusion criteria would also be based on coding for cause of death?

Minor Comments

Comment 5:

“While our study lacked some of the clinical variables required to apply prognostic scoring tools (e.g., PSI, CURB-65, and APACHE-II) [30, 31]"

“Possibly, the Caucasian patients admitted to VHA ICUs were more severely ill than the African-American patients admitted to VHA ICUs;”

Admission prognostic scores are important because they provide a baseline of severity of patients. Therefore they should be reported if possible to see if there is indeed difference in baseline between the two groups in pneumonia severity. Furthermore, these factors should be adjusted for unless the parameters that make up the score are already adjusted for. The authors adjusted for patient comorbidities and this is desirable but consideration of some kind of indicator of admission severity is important as well. This should be considered a major limitation of the study.

Comment 6:

While the subject of differential treatment based on race is interesting, this study seems to show that there is no difference in the same for any individual under the same service. One thing that needs to be included is perhaps to what degree to Afro-Carribeans and ethnic minorities have access to VHA services. Based on what is reported here, the conclusion that can be drawn is that Afro-Carribean patients of the VHA facilities can be assured that they do not receive sub-standard care. But perhaps VHA enrolled Afro Carribeans may be different from the vast majority of other Afro Carribeans who are treated under different schemes.

Comment 7:

For all tables, the number of patients included in the analysis should be reported. It can be after the title (n= X) or in the table

Comment 8:

Figures 1 and 2 are interesting. Why are there difference in antibiotic guideline concordance between the ward and ICU?

Comment 9:

Table 2a: The values are for each racial group look very similar,yet the test is statistically significant (esp for LOS of 4 days in each group). Could you please explain this? Presumably this is due to the multivariate model, and occurs after adjustment?
Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

We declare that we have no competing interests.