Reviewer's report

Title: Empiric guideline-recommended weight-based vancomycin dosing and nephrotoxicity rates in patients with methicillin-resistant Staphylococcus aureus bacteremia: a retrospective cohort study

Version: 2 Date: 2 October 2012

Reviewer: Charles Nhachi

Reviewer's report:

WEIGHT – BASED VANCOMYCIN DOSING AND NEPHROTOXICITY

Preamble: The main objective of this study was to investigate the Effect of Guideline-recommended weight –based Dosing on Nephrotoxicity in methicillin-resistant S. aureus bacteremia.

The evaluation of the effect was carried out by way of a multicenter retrospective cohort study.

COMMENTS

1. The question posed by the authors is well defined however the authors introduce some ambiguity by interchanging rates and incidence. In their title the authors talk of “nephrotoxicity rates in patients” while in the text they talk of nephrotoxicity incidence. This should be clarified.

2. The reason(s) for waiving informed consent should be stated immediately after this statement. The criteria (criterion) for included X number of patients from hospital X should be rationally stated and supported. Was it ad hoc?

The statistical analysis methods section was well defined but perhaps the weakest part of the methods is that the authors, (under DESIGN), stated “We conducted a multi-center, retrospective cohort study at three hospitals…..”. There is no where in the whole text where the actual retrospective cohort study is described and well defined.

3. Because of the less well defined methodologies, it is difficult to assess the soundness of the data. However this is not to say that the rational of collecting and collating the data was at fault.

4. To a very great extend the manuscript adheres to the relevant standards for reporting and data deposition.

5. The discussion and conclusions are well balanced within the confines study methodologies and results, but not necessarily accurate due to method weakness and the failure by the authors to clearly expatiate and state the great limitations of a Retrospective study.

MINOR COMMENTS

There is need to clarify some phrases, e.g. under RESULTS section, who are
“the other patients”? How many are “most patients…”
Are we talking of risk factors associated with increased nephrotoxicity OR conditions associated with…..? If they are risk factors, how are they evaluated?

CONCLUSION

While the writing of the manuscript is acceptable the credibility of the conclusions is weakened by the limitations of the methods.