Reviewer's report

Title: Tracing the emergence of multidrug-resistant Acinetobacter baumannii in a Taiwanese hospital by evaluating the presence of integron gene intI1

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Reviewer: Haibo Qiu

Reviewer's report:

This paper explored the possibility of intI1 integrase gene as a biomarker of MDRAB infection and found there was no specific correlation between intI1 and the infection of MDRAB. There are some comments for this study.

Major Compulsory Revisions

1. The authors mentioned that “the numbers of clinical AB isolates have risen since 2002, and the first MDRAB was reported in Taiwan that same year”, so it seems that 2002 is the beginning of the increment of AB infection. Please explain why the authors chose 2001-2002 as the study period and 2003-2004 as the control period, and what does the classification of study and control period mean because no comparison between these two groups was found in the results.

2. In the line 2-3, page 7, “The ampicillin-sulbactam resistance phenotype, IntI1 integrase positive genotype, and strains isolated within season of high infection rate”. When is the season of high infection rate, please clearly definit.

3. In the additional files 2, the authors presented the infection rate of the hospital and the ICU of each year during 2001-2004 respectively. But the variation trend for the four years, which seems more significant than the monthly data in each year, should also be explored.

4. Because it was a retrospective study, please illustrate how the samples were collected and preserved, and if there was any miss or lost sample. It is advised to provide a study flow to clarify the specific inclusion, exclusion and missing in data collection.

5. In the line 15-16, page 10, “the relationships between the predominant clones and the presence of the IntI1 did not have a significant association”, please provide the statistics data.

6. It was mentioned that only eight samples of the clinical MDRAB isolates (two isolates each year) were chosen for PFGE study, please illustrate why only eight samples been drawn and how the eight samples been drawn for PFGE study.

Minor Essential Revisions

1. In table one, what is the ICU infection rate and hospital infection rate. Does it mean the rate of MDRAB infection rate or AB infection rate or the total infection
rate? Please make it clearly.

2. In the figure one, what did those lines and bands represent, please indicate clearly.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.