Reviewer’s report

Title: Polymerase chain reaction ribotyping of Clostridium difficile isolates in Qatar: A hospital-based study

Version: 1 Date: 24 June 2014

Reviewer: Haihui Huang

Reviewer’s report:

There are very little data on CDI in Asia and this paper makes a useful contribution to our knowledge. Some issues with the manuscript are as follows:

Major Compulsory Revisions:
1. Materials and Methods, second paragraph: the authors should use the standardized case definitions for CDI, hospital acquired (associated) diarrhea and community acquired (associated) diarrhea. And then some data need to be recalculated.
2. Materials and Methods, fourth paragraph: samples were tested by GDH assay, toxins A and B EIA, and PCR. If the results are not completely consistent, how to interpret it? Please provide the information.
3. Results and Discussion: Epidemiology terminology (such as prevalence and incidence) is used loosely since there is no clear denominator. For example: results, correlating factors with CDI, age, last sentence, “both the CDI infection rate and...in the elderly group”. In the manuscript we do not know how many elderly patients had diarrhea and how many were met the inclusion criteria and tested for CDI, therefore we do not know the infection rate.
4. Results and Discussion: The correlations made are weak since the sample size is small. Please consult the statisticians whether these data are suitable for the Chi-Square tests.
5. The limitations of the work are not clearly stated.

Minor Essential Revisions
1. “Clostridium difficile” and “C. difficile” should be italic type.
2. Materials and Methods: Please provide company location information. Please provide the company information of the software used in this study as well.
3. First page, line 5: “Department of Laboratory medicine...” should be changed to “Department of Laboratory Medicine...”
4. Introduction, first paragraph: Please provide the reference of “Individuals with impaired antibiotic resistance tend to be at higher risk of C. difficile infection”.
5. Introduction, second paragraph: As far as I know, ribotype 017 is common in many Asian countries, e.g. China and Korea. But 027 and 078 are not common.
6. Materials and Methods, second paragraph: I suggest to delete the preposition
7. Materials and Methods, second paragraph: “Recruited patients...” should be earlier than “the inclusion criteria...”

8. Materials and Methods, 11th paragraph, last sentence: Do you mean you sent the strains with banding patterns did not match with the references to UK for ribotyping? If not, is there a web link or a page you can site?

9. Results, 5th paragraph, and last sentence: do you mean you had typed several different C. diff colonies for each patient?

Discretionary Revisions:

1. The significance will increase if the authors can provide more information on the incidence of CDI in Qatar. Please provide the incidence of CDI per 10,000 admissions (or patient days).

2. Are there any outbreaks during the study period?

3. Table 3: Because of the sample size is small, I suggest to remove the column of P value (significance of correlation with ribotype).

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, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests