Reviewer's report

Title: Using BOX-PCR to exclude a clonal outbreak of melioidosis

Version: 2 Date: 22 May 2007

Reviewer: Heinrich Neubauer

Reviewer's report:

General
1. The authors describe the comparison of three typing methods (PFGE, MLST and Box-PCR) for the use on Burkholderia (B.) pseudomallei isolates. These tools are extremely important in an outbreak scenario to identify a potential source or an index patient. Therefore cheap, fast and robust techniques for typing are of extreme importance. The use of Box-PCR on B. pseudomallei isolates is a new approach. The question raised is well defined.
2. The methods are correct and the evaluation of Box-PCR in the light of the gold standards PFGE and MLST is appropriate. The clonal clusters of B. pseudomallei strains are well chosen as environmental, patient strains and environmental strains are included. Moreover, geographical and temporal delineation are taken into consideration. The number of strains seems to be sufficient for the intended purpose. Sufficient details to replicate the work are provided.
3. The data are sound and well controlled.
4. The manuscript adheres to the relevant standards for reporting and data deposition.
5. The discussion and conclusion are well balanced and supported by the data shown. However, point 3e has to be addressed.
6. Title and abstract are well chosen.
7. The manuscript is well written. The use of cluster and group has to be checked in the text.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1.) Fig. 2: Counting the MLST Sts I find 54; considering the numbers of the 5 clonal clusters I would suppose that 73 strains have been involved in the study. Please clarify. I would really appreciate if the Sts of the clonal clusters could be added to the legend.
2.) A gel photograph of a Box-PCR could be helpful in the process of setting up the assay in a new laboratory.
3.) A comparison of PFGE and MLST results would be very interesting and therefore a very good amendment to be able to form an opinion on the usefulness of the using one of the methods in ones own laboratory.
4.) I would really appreciate a statement on the costs of the software used at the end of the discussion and whether it is possible to use the technique without applying scanner, software, etc. to get the same good results as described. Please clarify.
5.) Page 7 line 15: “some” clustering evident: specify “some”, please.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1.) Fig. 1: Clonal group has to be replaced by clonal cluster to be consistent with the text.
2. Reference 17: replace “burkholderia” by “Burkholderia”

Discretionary Revisions (which the author can choose to ignore)
What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests