Reviewer’s report

Title: Multiplex Polymerase chain reaction to diagnose bloodstream infections in patients after cardiothoracic surgery

Version: 1 Date: 01 Jan 2019

Reviewer: Teresa Fasciana

Reviewer's report:

Thanks for inviting me as the reviewer for this paper. In general, this article speaks about application an multiplex PCR to diagnose BSI in patients with cardiothoracic surgery.

The article will certainly contribute to increase the knowledge about the rapid diagnosis in BSI, but the manuscript needs modifications.

- If possible, authors should modify some dated references.

- In background section, line 10, I proposed to add the sentence: environmental contamination could be responsible of nosocomial infection acquisition and diffusions of MDR microorganisms

Add reference:

- What Healthcare Workers Should Know about Environmental Bacterial Contamination in the Intensive Care Unit.

Vincenzo Russotto, Andrea Cortegiani, Teresa Fasciana, Pasquale Iozzo, Santi Maurizio Raineri, Cesare Gregoretti, Anna Giammanco, and Antonino Giarratano.


- Polyclonal non multiresistant methicillin resistant Staphylococcus aureus isolates from clinical cases of infection occurring in Palermo, Italy, during a one-year surveillance period.


The aim is poor. Please, you should better explain the aim of this work to underline and emphasize the significance your results with respect to the problems of ongoing antimicrobial resistance.
In discussion sections:

1. remark the importance of rapid identification of microorganism and add the reference:


The conclusions are intuitive and the findings don't support an innovative discovery. Please, insert some comment about the comparative analysis of the used diagnostic methods.

In tables write the name of bacteria with italic letters.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable
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