Reviewer's report

Title: Accuracy of Tracheal Aspirate Gram Stain to predict Staphylococcus aureus in Ventilator-Associated Pneumonia

Version: 4 Date: 24 September 2014

Reviewer: Samuel M. Galvagno

Reviewer's report:

MAJOR REVISIONS:
Overall, this article requires significant revisions in terms of wording, sentence structure, and grammar. The authors should solicit a fastidious review from a professional with a thorough command of the English language. The manuscript, as it is presently written, cannot be accepted for publication; however, the authors' message and methodology are of interest to readers of BMC Anesthesiology. Please revise accordingly.
The abstract needs to be rewritten.
"The Gram stain" not Gram stain.
"This conduct" should be "this rapid test could prevent initiation of inappropriate therapy"
The hypothesis needs to be stated in the Introduction.
"The inclusion criteria was being" should be "Patients suspected of having VAP by ATS IDSA criteria..."
VAP needs to be spelled out when first used in the abstract.
"could discard" should be "rule out"
The entire manuscript requires significant revision for multiple grammatical errors.
Sentences that need to be revised or reworded:
"difficult to diagnose being suspected using"
"In our hospital, aiming at restricting antibiotics overuse and prevent"
"were being suspected VAP by ATS / IDSA
80 criteria [1, 5] and have respiratory secretion sample collected"
"positive when identified more than 105 91 CFU/ml."
"in accordance with Blot et al results" This also needs a reference for the Blot study. This needs to be referenced at the first mention of the study, not several sentences later in the paragraph.
"...how much risk the care team supports taking in a disease in which mortality can vary from 25 to 76%" Agree, but this sentence needs to be reworded.
Recommend "In consideration of these results, providers are challenged to
determine the level of acceptable risk associated with missing the diagnosis of a condition that has a mortality ranging between 25 to 76%"

This is too informal "Still, our results differ from others." This needs to be reworded.

"So the question becomes, can we wait 72 hours to adjust treatment?" Too informal; rewrite

"At this early moment Gram stain could be an useful tool" This is an incomplete sentence; rewrite

"But microbial ecology of the unit, including the frequency of cases of S aureus should also be considered in the therapeutic decision." This is an incomplete sentence; rewrite

Figure 1 is incomplete.

"7 patients did not have Gram" need to add "Gram stain"

-should be "had a tracheal aspirate performed"

-"did not read S aureus" should be "were positive for S aureus

MINOR REVISIONS:

This manuscript is predicated on an imperfect definition of VAP. The authors need to discuss this further. I recommend a review and reference to Magill et al, CID 2013: 57.

The CPIS is also problematic; yet, the authors do not discuss the limitations of using this scoring scale. This needs to be discussed in the Discussion section as a limitation. I would argue that use of CPIS and the older ATS VAP diagnosis guidelines are limitations, not "valuable points." This requires more discussion.

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

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests