Reviewer's report

**Title:** Associations between interleukin-1 gene polymorphisms and sepsis risk: a meta-analysis

**Version:** 3  **Date:** 1 January 2014

**Reviewer:** marquitta white

**Reviewer's report:**

Minor Issues not for Publication

Abstract, Results
1. Line 5: “analysis” should be “analyses”
2. Line 6: Change “the overall risk of sepsis in overall analysis” to “sepsis risk in overall analysis”
3. Line 12: Change “(the pooled OR value of septic shock patients > of severe sepsis patients > of sepsis patients)” to “( septic shock OR > severe sepsis OR > sepsis OR)”

Introduction, Paragraph 1
1. Line 8: Change “suggest” to “suggests”

Materials and Methods, Statistical Analysis Subsection
1. Line 19: Add “the” after “used”

Results, Paragraph 2
1. Line 3: Add “for” after “Except”

Delete “one study” replace with “another”

Results, Paragraph 7
1. Line 3: Change “was deviating” to “that deviated”
2. Line 6: Delete “However,“
3. Line 7: Delete “only”

Delete “as that seen in the overall analysis, which was not” and replace with “although the results were not statistically significant”
4. Line 11: Add a “.” after “sepsis patients)”

Delete “ which needed” and replace with “These findings”

Results, Paragraph 8
1. Line 3: “or” should be “and”
2. Line 10: Insert “a” before “major source”

Discussion Section, Paragraph 2
1. Line 5: Add “The” in front of “Il1B+3954”
Change “IL1B+3954T” to “IL1B+3954 T”
2. Line 12: Delete “some”
Delete “therefore,”

Discussion Section, Paragraph 3
1. Line 10: Add “on” after “based”
2. Line 11: Change “subgroup analysis based ethnicity” to “ethnicity subgroup analysis.”
3. Line 12: Delete “thereby indicating” and replace with “This indicates”
Delete “different ethnicities” and replace with “ethnicity subgroup analyses”
4. Line 13: Add “the” before “diverse”
Delete “factors in” and replace with “factors influencing sepsis risk in”

Discussion Section, Paragraph 6
1. Line 13: Delete “the” and replace with “these”
Add “were” in front of “derived”
2. Line 15: Delete “or multiple testing driving false positive findings”

Discussion Section, Paragraph 8
1. Line 1: Change “meta-analysis” to “meta-analyses”
Change “reviews” to “review”

Discussion Section, Paragraph 9
1. Line 12: Delete “the” before “stratified analyses”
2. Line 14: Delete “which” and replace with “; the inclusion of studies with varied control populations”

Minor Essential Revisions
The authors have greatly improved the quality of the manuscript since their original subscription by addressing the concerns raised by myself and the other reviewers, and adding additional information that will aid readers in interpreting their results. There are a few minor changes, listed below, that I believe will further add clarity to the data presented in this manuscript

1. Results, IL-1B+3594 subsection
Please add the PFDR value to the overall comparison results and to the results obtained after the removal of the Fang et al study.

2. Results, IL-1RN VNTR subsection
Please add the PFDR value to the overall results under the allelic model to Line 6.
3. Figure 2
Add a superscript 1 to “Events” and then a definition in the figure legend:
Events1: Number of individuals with TT genotype

4. Figures 3
Add a superscript 1 to “Events” and then a definition in the figure legend:
Events1: Number of individuals with 22 genotype

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

**Quality of written English:** Acceptable

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

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