Reviewer's report

Title: Reducing Ventilator-associated Pneumonia in Neonatal Intensive Care Unit Using "VAP prevention Bundle": a cohort study

Version: 2 Date: 9 April 2015

Reviewer: Tara Randis

Reviewer's report:

VAP is a major contributor to neonatal morbidity and mortality and therefore this study is of great interest to Pediatricians, Neonatologists and Infectious Disease Specialists. The authors describe the implementation of a VAP prevention bundle in a university–based neonatal intensive care unit. They demonstrate a statistically significant (RR=0.56) reduction in VAP post-intervention. The methodology and statistical measures described in this manuscript are sound.

I have the following minor essential revisions

Background:

• Reference #1 no longer exists. The most recent definition used by the Centers for Disease Control (CDC) and National Healthcare Safety Network definition requires new and persistent radiographic infiltrates and worsening gas exchange in infants who are ventilated for at least 48 hours and who exhibit least 3 of the following criteria: temperature instability with no other recognized cause, leukopenia, change in the characteristic of respiratory secretions, respiratory distress and bradycardia or tachycardia. (http://www.cdc.gov/nhsn/PDFs/pscManual/6pscVAPcurrent.pdf)

Discussion:

• Needs to include some discussion of the study limitations:
  o No measures of provider adherence after the bundles were implemented
  o Generalizability of their findings
  o Feasibility/cost-effectiveness

Figure 1: “Strict re-intubation” What does this refer to? (strict adherence to criteria/guidelines/protocol?)

There are many typographical/grammatical errors throughout the text:

  o CDC = Centers for Disease Control and Prevention
  o Table 1 remove “%” in Gender Number row (phase 1)
  o Table 2: Row 1: “Number MV neonates”
  o Bacterial nomenclature: consistent use of italics and capitalization, Klebsiella
pneumoniae etc.

- Table 3
- Hospital-acquired infection should be used rather than the term nosocomial infection

**Level of interest:** An article of importance in its field

**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.