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Pneumonia Associated with Invasive and Noninvasive Oxygenation Strategies for Acute Hypoxemic Respiratory Failure in Adults: A Systematic Review and Network Meta-analysis Protocol

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ARDS

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ABSTRACT

Background: Noninvasive oxygenation strategies, such as noninvasive positive pressure ventilation and high-flow nasal cannula, have become common treatments for acute hypoxemic respiratory failure. However, further research is needed to understand the relative benefits and risks of each strategy.

Aim: The purpose of this systematic review is to assess which noninvasive oxygenation strategy is best for reducing pneumonia in patients with acute hypoxemic respiratory failure.

Methods and analysis: We will conduct a systematic review of the relevant literature according to the Cochrane Handbook and the Preferred Reporting Items for Systematic Reviews and Meta-Analysis guidelines. We will include randomized controlled trials assessing the effect of noninvasive oxygenation interventions for patients with acute hypoxemic respiratory failure. The main outcome is the incidence rate of pneumonia, which is not limited ventilator-associated pneumonia, aspiration pneumonia, and nosocomial pneumonia. Two independent reviewers will extract the data and assess the risk of bias. We will perform a meta-analysis using the GRADE Working Group Approach for a network meta-analysis.

ATTACHMENTS

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KEYWORDS

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