Prevention of ventilator-associated pneumonia (VAP) in the intensive care units – A review

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INTRODUCTION

Information on patients, definitions, contemplate structure, and results were preoccupied and reviewed by utilizing pre-built-up criteria. The preventive practices with the most grounded unaltering confirmation were semi-prostrate arranging, sucralfate as opposed to H2 opponents for stress ulcer prophylaxis, and specific stomach-related tract disinfecting. Goal of subglottic wavering beds might be helpful in select populaces. There is no proof to help explicit strategies for outside bolstering or expanded recurrence of ventilator hardware changes.[1-6]

After assessment of potential advantages and dangers, the creators prescribe considering a few explicit mediations to decrease the rate of ventilator-related pneumonia: Semi-prostrate situating in every single qualified patient, sucralfate as opposed to H2 adversaries in patients at low to direct hazard for gastrointestinal tract dying,[7-11] and yearning of subglottic emissions and wavering beds in select patient populaces. Particular stomach-related tract cleaning is not suggested on the grounds that normal use may expand antimicrobial opposition.[12-16] VAP keeps on confusing the course of 8–28% of patients getting mechanical ventilation (MV). As opposed to contaminations of all the more as often as possible included organs (e.g., urinary tract and skin), for which mortality is low, extending from 1% to 4%, the death rate for VAP ranges from 24 to half and can achieve 76% in some particular settings or when lung disease is brought about by high chance pathogens. The transcendent creatures in charge of disease are Staphylococcus aureus, Pseudomonas aeruginosa,[17-25] and Enterobacteriaceae; however, etiologic specialists broadly vary as indicated by the number of inhabitants in patients in an emergency unit, of medical clinic remain, and earlier antimicrobial treatment. Since proper antimicrobial treatment of patients with VAP essentially improves the result, progressively fast distinguishing proof of tainted patients and precise determination of antimicrobial operators speak to imperative clinical objectives.[26-34] Our own inclination is that utilizing bronchoscopic procedures to acquire shielded brush and bronchoalveolar lavage examples from the influenced zone in the lung grant doctors to devise a remedial methodology that is better than one dependent on clinical assessment. At the point, when fiberoptic bronchoscopy is not accessible to doctors treating patients clinically associated with having VAP, we prescribe utilizing either a streamlined non-bronchoscopic symptomatic technique or following a procedure in which choices in regard to antitoxin treatment depend on a clinical score built from seven

ABSTRACT

Background: Ventilator-associated pneumonia (VAP) is a common cause of morbidity in critically ill patients. The preventive practices with the most grounded unaltering confirmation were semi-prostrate arranging, sucralfate as opposed to H2 opponents for stress ulcer prophylaxis, and explicit stomach-related tract disinfecting. Aim and Objectives: Interventions beneficial to the prevention of VAP would, therefore, have a significant impact on the care of these patients. Materials and Methods: Studies were required to be prospective and controlled in design and to evaluate clinically important or surrogate outcomes. Results and Conclusion: Surrogate outcomes were required to have a direct link to clinically important outcomes supported by the secretions and literature. Subglottic secretion drainage appears effective in preventing early-onset VAP among the patients

KEY WORDS: Pneumonia, Semi-recumbent, Subglottic, Ventilator

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factors. Choice of the underlying antimicrobial treatment ought to be founded on prevalent verdures in charge of VAP at every establishment, clinical setting, data given by direct examination of aspiratory discharges, and inherent antibacterial exercises of antimicrobial operators and their pharmacokinetic qualities. Further, preliminaries will be expected to illuminate the ideal length of treatment and the conditions in which monotherapy can be securely utilized.

**CONCLUSION**

Subglottic secretion drainage appears effective in preventing ventilator-associated pneumonia (VAP).

**MATERIALS AND METHODOLOGY**

We performed a comprehensive, systematic meta-analysis of randomized trials that have compared subglottic secretion drainage with standard endotracheal tube care in mechanically ventilated patients. Studies were identified by a computerized database search, review of bibliographies, and expert consultation. Summary risk ratios or weighted mean differences with 95% confidence intervals were calculated for each outcome using a fixed effects model.

**RESULTS**

Of 110 studies retrieved, five met the inclusion criteria and enrolled 896 patients. Subglottic secretion drainage reduced the incidence of VAP by nearly half (risk ratio [RR] = 0.51; 95% confidence interval [CI]: 0.37–0.71), primarily by reducing early-onset pneumonia (pneumonia occurring within 5–7 days after intubation). Although significant heterogeneity was found for several endpoints, this was largely resolved by excluding a single outlying study. In the remaining four studies, which recruited patients expected to require >72 hours of MV, secretion drainage shortened the duration of MV by 2 days (95% CI: 1.7–2.3 days) and the length of stay in the intensive care unit by 3 days (95% CI: 2.1–3.9 days), and delayed the onset of pneumonia by 6.8 days (95% CI: 5.5–8.1 days).

**CONCLUSION**

Subglottic secretion drainage appears effective in preventing early-onset VAP among patients expected to require >72 h of MV.

**REFERENCES**


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