

Occurrence of Ventilator-Associated Pneumonia using Tracheostomy Tubes with Subglottic Secretion Drainage

Clinical Summary Sheet

AUTHORS

Terragni P, Brazzi L, Falco D, Pistidda L, Magni G, Bartoletti L, Mascia L, Filippini C, Ranieri V.

PUBLICATION OR PRESENTATION

37th International Symposium on Intensive Care and Emergency Medicine
Brussels, Belgium
21-24 March 2017
Critical Care 2017, 21 (Suppl 1): P60

AIM

Subglottic secretions above the endotracheal cuff are associated with colonization of bacteria in the lower respiratory tract, causing ventilator-associated pneumonia (VAP) in critically ill patients who require mechanical ventilation. The purpose of this study was to determine if incidence of VAP can be reduced with use of suction above the cuff with Portex® Blue Line Ultra® Suctionaid® tracheostomy tubes.

METHODOLOGY

The design of this investigator-initiated* trial was a matched cohort study with historical control in three academic Italian intensive care units (ICU). The treatment group consisted of patients admitted to ICU requiring mechanical ventilation who were treated with the Portex® Blue Line Ultra® Suctionaid® tubes to allow for suction above the tracheostomy cuff. Historical data from tracheostomized patients without the ability to perform suction above the cuff were used as the control group. Propensity score matching was utilized to balance the two groups with respect to timing of tracheostomy, age, gender, SAPS and SOFA covariates. The primary endpoint was occurrence of VAP incidence at 28 days post intubation, as determined by clinical pulmonary function score.

*This was an investigator-initiated study supported by a monetary research grant from Smiths Medical. Smiths Medical had no role in conception, design, acquisition of data, analysis and interpretation of data, or manuscript preparation.

RESULTS

A total of 125 patients were enrolled in the treatment group and were treated with subglottic secretion drainage through the tracheostomy tube, and 232 patients without suctioning were selected as the control group. Overall incidence of VAP was 10 patients (8%) in the treatment group and 45 patients (19.4%) in the control group ($p=0.004$; $OR=0.361$; $CI=0.175, 0.745$). After propensity score matching, incidence of VAP was 8.3% and 21.7% in the treatment and control groups, respectively ($p=0.0408$; $OR=0.329$; $CI=0.109, 0.990$).

CONCLUSIONS

The authors concluded that subglottic secretion drainage with the Portex® Blue Line Ultra® Suctionaid® tubes reduces the incidence of VAP in critically ill patients requiring ongoing mechanical ventilation with tracheostomy.

For more information visit our website at www.smiths-medical.com

PRODUCT(S) DESCRIBED MAY NOT BE LICENSED OR AVAILABLE FOR SALE IN CANADA AND OTHER COUNTRIES

Smiths Medical International Ltd.
Hythe, Kent CT21 6JL, UK
Tel: +44 (0)1303 260551
www.smiths-medical.com

Smiths Medical International
1500 Eureka Park, Lower Pemberton
Ashford Kent, TN25 4BF
Tel: +44 (0)845 850 0445

EC Authorized Representative
Smiths Medical International Ltd.
1500 Eureka Park, Lower Pemberton
Ashford, Kent, TN25 4BF100

MHYTCA - 1227

smiths medical

Find your local contact information at: www.smiths-medical.com/customer-support/contact-us

Smiths Medical is part of the global technology business Smiths Group plc. Please see the Instructions for Use/Operator's Manual for complete listing of the indications, contraindications, warnings and precautions. Blue Line Ultra, Suctionaid and the Portex and Smiths Medical design mark are trademarks of Smiths Medical. The symbol ® indicates the trademark is registered in the U.S. Patent and Trademark Office and certain other countries. All other names and marks mentioned are the trademarks or service marks of their respective owners. ©2017 Smiths Medical. All rights reserved. TR194498GB-052017