

QUALITY CONTROL PROJECT: PREVENTION OF ACINETOBACTER AND PROTEUS GROWTH ON ETTS IN ICU

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DOI: <https://doi.org/10.5281/zenodo.15607216>

Keywords

Article History

Received on 29 April 2025

Accepted on 29 May 2025

Published on 06 June 2025

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Abstract



INTRODUCTION

1. Project Objective

To reduce and prevent the colonization of Acinetobacter and Proteus on ETTS through targeted infection control and quality improvement measures in ICU settings.

Key Focus Areas

1. Patient Care Practices

- Implement regular oral care protocols to reduce colonization in the upper airway.
- Elevate the head of the bed (30–45°) to reduce aspiration of oral secretions.

ETT Management

- Use antimicrobial-coated ETTS (silver-coated or drug-impregnated) to prevent bacterial adhesion.
- Monitor cuff pressure to prevent micro-aspiration of secretions.
- Regularly replace ventilator circuits and condensate

collection systems.

Environmental Controls

- Ensure ICU equipment and surfaces are thoroughly cleaned and disinfected.
- Implement strict hand hygiene practices with alcohol-based hand rubs before and after patient contact.
- Use dedicated ICU equipment for each patient to reduce cross-contamination.

Risk Assessment and Root Cause Analysis (RCA)

- Conduct an RCA to identify the current sources of contamination or transmission pathways.
- Review ICU procedures for ETT insertion, suctioning, and ventilator maintenance.

Quality Improvement Interventions

- **Educational Training:** Train ICU staff on ETT care, infection control, and hand hygiene protocols.

- **Standardized Protocols:** Develop and implement protocols for ETT insertion, care, and removal.
- **ETT Biofilm Control:** Introduce ETT flushing or suctioning methods to disrupt biofilm formation.
- **Antibiotic Stewardship:** Minimize unnecessary antibiotic use to prevent resistant strain selection.

Data Collection and Analysis

- Perform baseline data collection to identify current colonization rates.
- Implement regular audits of infection control practices.
- Use statistical process control charts to monitor changes over time.

Continuous Improvement

- Review audit results monthly and implement corrective actions for any breaches.
- Foster a culture of accountability and continuous learning among ICU staff.

Reporting and Communication

- Share project outcomes with ICU staff and hospital leadership.
- Develop a feedback loop to adjust protocols based on monitoring results.



Expected Outcomes

- Reduction in Acinetobacter and Proteus colonization and VAP rates.
- Improved adherence to infection control practices.