Title: SPECIAL SESSION: Developing the Evidence for Airway Management of Critically Ill Ventilated Patients

Presenter: Mary Lou Sole, PhD, RN, CCNS, FAAN, FCCM

Type: Oral

Keywords: airway, infection and nursing research

Description/Overview:
This program describes a trajectory of research to build the evidence for best practices for airway management in critically-ill ventilated patients. Discussion will focus on practices including suctioning and management of the endotracheal tube in adult patients.

Final Number: J 16b
Slot: J 16b: Saturday, 29 July 2017: 2:15 PM-2:45 PM

References:


Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
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<td>Describe development of a program of clinical research related to airway management in critically-ill ventilated patients.</td>
<td>Interest in the topic developed through experience and observations. Generating evidence related to progressive topics: ventilator-associated pneumonia, colonization of equipment, practice surveys, endotracheal...</td>
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tube cuff management, oral and endotracheal suctioning, and interventions to prevent aspiration and ventilator-associated conditions.

Articulate the importance of inquiry, collaboration, and team-building in conduct of research.

Research develops through a spirit of inquiry and questioning. Collaboration is needed as one develops a program of research: team members and clinical sites. Intervention studies require a strong multiprofessional team whose expertise complements and supports conduct of studies.

Abstract:

**Background.** Many practices in critical care lack evidence to support the best patient outcomes. Additionally, it is challenging to conduct clinical studies in the environment of a fast-paced critical care unit. This session will describe a program of research focused on airway management of critically-ill patients who require mechanical ventilation. Mechanically-ventilated patients are at risk for infection and other complications associated with the artificial airway, such as aspiration and ventilator-associated conditions. Strategies for conducting successful studies in the critical-care setting will also be addressed. **Objectives.** To detail a successful research trajectory for studying airway management practices in the critically-ill ventilated patient, and discuss strategies that facilitated conduct of research in the critical-care setting. **Methods.** After established a broad research focus on use of technology to assess oxygenation and circulation, the research focus was narrowed to emphasize airway management strategies. Both nurses and respiratory therapists (in the U.S.) manage the patient with an artificial airway. Management strategies include oral care, oral suctioning, endotracheal suctioning, and care of the endotracheal tube. Equipment to facilitate airway management is also required. Airway management is important to prevent aspiration of oral and gastric secretions, and ventilator-associated pneumonia and conditions. The researcher has conducted many descriptive, pilot, and interventional studies addressing airway management strategies. The most recent is a large clinical trial investigating the impact of enhanced oral suctioning on prevention of aspiration and ventilator-associated events. Each study has laid the groundwork for future studies. **Results.** Study findings have identified the importance of strategies to reduce complications associated with mechanical ventilation. Nurses and respiratory therapists often differ in their airway management practices, which may affect patient outcomes. Additional and ongoing research is needed to establish the best practices for oral suctioning, endotracheal suctioning, and management of the endotracheal tube cuff to prevent complications such as aspiration and infection. Strategies for success have included a spirit of inquiry along with self-motivation and determination to make a difference in nursing practice. Collaboration and partnerships provide support needed for success. Team-building is one of the most important parts of a successful trajectory and includes personnel from many disciplines. Each has a unique and synergistic role in the success of the study. **Conclusions.** A successful program of research will impact nursing care and patient outcomes. Tenacity, time, and teams are essential!