Decreasing Tracheostomy Associated Hospital Acquired Pressure Injuries in Critical Care and Step-Down Units

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Hospital acquired pressure injuries (HAPIs) are associated with increased morbidity, mortality and increased length of stay (Lyder, Wang, Metersky, Curry, Kliman, Verzier, & Hunt, 2012). The Centers for Medicare and Medicaid (CMS) no longer reimburse hospitals for costs associated with treating a hospital-acquired pressure injury (Agency for Healthcare Research and Quality, 2016). The predominant focus of preventing hospital acquired pressure injuries (HAPIs) has been the development of strategies to prevent damage to the skin and underlying tissue over bony prominences. The emergence of attention to medical device-related pressure injuries (MDRPIs) has made it equally important to focus on prevention of MDRPIs.

Tracheostomies have been associated with MDRPIs. It is essential to develop and implement strategies to mitigate risk associated with the development of tracheostomy- associated MDRPIs (Delmore & Ayello, 2017). Patients on critical care units frequently require tracheotomies. The resulting tracheostomy places patients at risk for MDRPIs (Black, Alves, Brindle, Dealey, Santamaria, Call & Clark, 2013). These patients are often transferred to a step-down unit with the tracheostomy in place.

The purpose of this evidence-based practice initiative was to reduce the incidence of hospital-acquired pressure injuries related to a tracheostomy in critical care and step-down units. Following the development of tracheostomy associated hospital acquired pressure injuries, root cause analysis (RCA) revealed several factors that may have contributed to their development. One area identified was the lack of consistency by staff regarding skin protection beneath the tracheostomy plate. The standard practice varied and included split gauze, foam, hydrocolloid or no dressing. Additionally, staff reported at times it was difficult to apply a dressing beneath the tracheostomy plate due to the tightness of the sutures.

Developing the EBP initiative and fostering sustainability of the plan required a multidisciplinary approach. Key stakeholders included physicians, nursing leadership, nursing and respiratory staff. The EBP initiative was disseminated during nursing leadership meetings and staff in-services. Sustainability of the plan was promoted by placing instructional poster boards on each unit as a reference and reinforcement of instruction.

The initiative resulted in a 62.5% reduction of tracheostomy-associated HAPIs over an eleven month period. Prior to the initiative, there were 8 tracheostomy-associated HAPIs in a one year period. Following implementation of the initiative, there were 3 in an 11 month period. The RCAs post implementation revealed staff had not applied the dressing or applied it incorrectly. The results of the RCA highlighted the importance of review and reinforcement of the initiative to promote sustainability of the plan.
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Keywords:
Evidence Based Practice Initiative, Medical Device Related Pressure Injuries and Preventing Tracheostomy Associated Hospital Acquired Pressure Injuries

References:


Abstract Summary:
The purpose of this evidence-based practice initiative was to reduce the incidence of hospital-acquired pressure injuries related to a tracheostomy in critical care and step-down units. Pre-EBP initiative, there were 8 tracheostomy-associated HAPIs from 1/2016-12/2016 and 3 post initiative from 1/2017-11/2017, demonstrating a 62.5% decrease in tracheostomy-associated HAPIs.

Content Outline:
Introduction: Medical device-related (MDR) pressure injuries are an inherent risk in patients with tracheostomies.

Body: Following the development of tracheostomy associated hospital acquired pressure injuries, root cause analysis (RCA) revealed several factors that may have contributed to their development.
Contributing factors included lack of consistency by staff regarding skin protection beneath the tracheostomy and the timely removal of the sutures.

A plan was developed and implemented to standardize care for the prevention of tracheostomy-associated hospital-acquired pressure injuries.

The use of a thin silicone dressing applied beneath the tracheostomy plate was adopted for prevention of pressure injuries. In addition, a discussion regarding the plan was held with physicians responsible for creating tracheostomies.

Conclusion: The intervention resulted in a 62.5% reduction of tracheostomy-associated HAPIs over an eleven month period.

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