

Title:

Efficacy of Low-Air-Loss Bed Replacement in Decreasing Hospital-Acquired Pressure Ulcers (HAPUs) in Medical-Surgical Units

Juvy Montecalvo Acosta, DNP

Nursing Department, Wound Healing Solutions, Barnegat, NJ, USA

Session Title:

Pressure Ulcer Prevention

Slot:

H 04: Monday, 30 October 2017: 2:45 PM-3:30 PM

Scheduled Time:

3:05 PM

Keywords:

Hospital Acquired Pressure Ulcer, Low-Air-Loss and Technology

References:

1. McGinnis, E., Stubbs, M. (2014). Pressure-relieving devices for treating heel pressure ulcers. The Cochrane Collaboration (p.1-33). Retrieved from <http://www.update-software.com/BCP/WileyPDF/EN/CD005485.pdf>. 2. McInnes, E., Jammali-Blasi, A., Bell-Syer, S., Dumville, J., Cullum, N. (2011). Support surfaces for pressure ulcer prevention. The Cochrane Collaboration. Published by John Wiley & Sons, Ltd. p. 1-127. Retrieved July 10, 2014 from http://2020.160.3/assets/files/pdf/NRI/NRI_Sem_2011_ulcerPreventionReview.pdf

Abstract Summary:

The purpose of this research was to evaluate the efficacy of implementing low-air-loss technology in the prevention of the occurrence of Hospital Acquired Pressure Ulcers (HAPU's) pressure ulcers in the Medical-Surgical units.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to identify the role of low -air-loss technology in preventing hospital acquired pressure ulcer in medical-surgical unit.	Discuss content to describe content to learner to meet objective
The learner will be able to identify clinical implication of utilizing low-air- loss technology in preventing hospital acquired pressure ulcers in medical-surgical unit.	Discuss content to describe content to learner to meet objective

Abstract Text:

Background:

In 2006, the Centers for Medicare and Medicaid (CMS) identified HAPU's as a "never event" which lead to reimbursement restriction to HAPU's related treatment which began in October 1, 2008. The increase number of HAPU's, financial impact of the reimbursement restriction, and high cost of specialty surface rental for pressure ulcer prevention generated urgency from senior leadership of a community hospital to

implement a comprehensive pressure ulcer prevention program which included a low-air-loss bed replacement program.

Design and Methods:

This study employed a retrospective chart review of HAPU occurrences before (2012) and after (2013) implementation of the low-air-loss bed replacement program. Statistics reported through Quality Management Services through a monthly pressure ulcer incidence study was used. Data included the stage of pressure ulcer and the clinical area where the patient developed the HAPU. A pressure ulcer incidence rate was then entered through MedCalc®.

Interventions:

All Medical-Surgical units support surfaces were replaced with low-air-loss beds, a support surface that redistributes pressure. The replacement took place in January 2013. This change was conducted due to a high incidence of Hospital Acquired Pressure Ulcer in 2012. There was a total of 190 Low-Air-Loss beds replaced older Medical-Surgical beds. The goal for the hospital wide Low-Air-Loss bed replacement was to reduce Hospital Acquired Pressure Ulcers (HAPU's) in a 365 bed community hospital.

Results:

A total of 67 HAPU's were identified in 2012, and in 2013, there were 28 HAPU's were discovered. The 2012 HAPU incidence rate was 0.04373 and the 2013 HAPU incidence rate was 0.01859, $p = 0.0001$, and 95% Confidence Interval - 1.4925 to 3.7984. There was a significant decrease in HAPU after the implementation of the low-air-loss bed replacement program.

Conclusion:

The implementation of a low-air-loss bed replacement program significantly reduced the incidence of HAPU's in Medical-Surgical areas by 58% in 2013, $p = 0.0001$. However, continued staff involvement in conducting monthly prevalence studies, ongoing staff education on this innovation, monitoring of compliance utilizing surface features and other pressure ulcer prevention strategies is still warranted.