Culture Change in the Burn Unit: A Comprehensive Unit Based Approach to Reduction of Hospital Acquired Pressure Injuries

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Introduction

Hospital acquired pressure injuries (HAPIs) represent a significant threat to patient safety and financial solvency. Burn patients are at high risk of developing HAPIs secondary to impaired skin integrity, open wounds, increased nutritional needs, prolonged immobilization and edema. In our burn center, patients continue to develop HAPIs despite staff efforts to offload.

It was determined that a multifaceted approach to culture change related to the prevention and treatment of pressure injuries be implemented.

This approach revolved *around* ***involving the bedside nurse both in the prevention of pressure injuries and in evaluation of the factors that contributed to each HAPI*.**

Objectives

The goals of the project include:

Increase nursing involvement in HAPI prevention efforts

Capture more accurate pressure injury data

Reduce the incidence of HAPIs

Materials and Methods

To increase nursing involvement in HAPI prevention efforts:

A weekly pressure injury survey was initiated each Wednesday, every patient in the BICU is surveyed for pressure injuries, offloading techniques and moisture management. The survey is conducted by a nurse and a patient care technician

To capture more accurate pressure injury data:

Data is collected utilizing the NDNQI pressure injury survey form. This data is then recorded in EPIC and the Hopkins Event Report Online (HERO) system per hospital protocol.

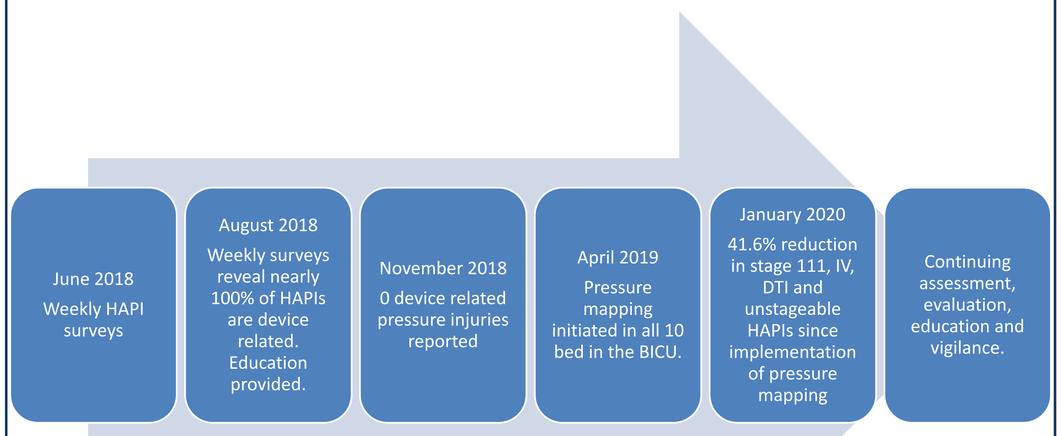
To reduce the incidence of HAPIs:

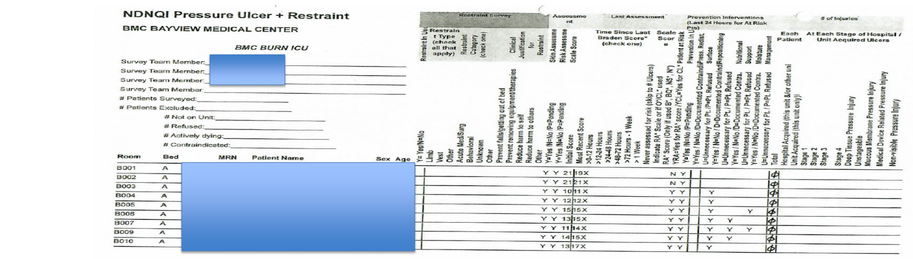
All pressure injuries discovered during the survey are discussed in weekly multidisciplinary rounds. An analysis of the contributing factors that led to the pressure injury provides nurses with clinically relevant data to support their practice.

A continuous pressure mapping device was deployed in 2019 to provide bedside clinical staff with real time information on the effectiveness of their turning/repositioning. In addition, the device may be utilized by patients who are able to turn themselves.

Results

Process



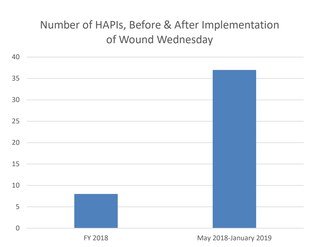


Pressure injury survey tool

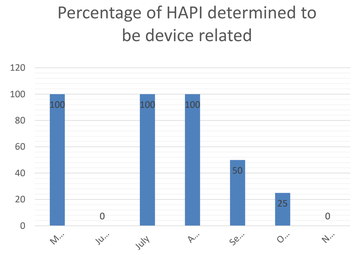
Wound Moisture Associated Skin Damage;Pressure Injury Sacrum	
Wound Properties	Date First Assessed/Time First Assessed:
Dressing Status	Clean, Dry, Intact
Wound Image	
Date of last dressing change	
Wound Bed Assessment	
Wound Description (Comments)	
Peri-Wound Assessment (Surrounding skin)	
Drainage Amount	
Drainage Description	
Margins	
Closure	
Length (cm)	
Width (cm)	
Depth (cm)	
Tunneling (cm/o'clock)	
Undermining (cm/o'clock)	
Cleansing / Gentle Irrigation	
Wound/Periwound Protection	
Dressing Applied	
Secured with	
Frequency of Dressing Changes	
Treatments by Wound Specialists	
Comments	
Changes in Pressure Injury Staging	

Wound documentation

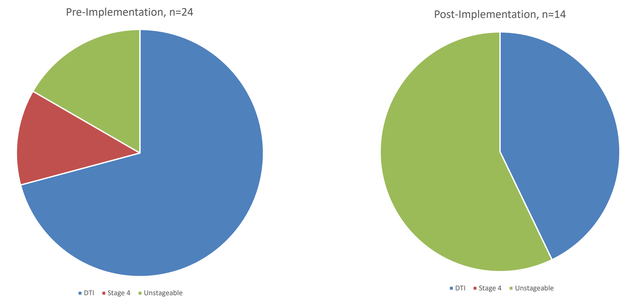
Weekly audits provide real time data to bedside nursing staff and increase compliance with documentation



Initially weekly surveys demonstrated an increased incidence of HAPI. This was attributed to capturing accurate data.



Weekly surveys yielded information on etiology, revealing many HAPIs were related to devices, specifically twill tape used to secure devices.



In the nine months prior to the implementation of the pressure mapping systems, there were 24 stage IV, unstageable and DTI pressure injuries captured. In the nine months following the implementation, there were 14 HAPIs captured, with no stage IV.

In the coming months the goal is to further refine turning/repositioning techniques and splinting practices to decrease these numbers further.

Pressure mapping provides real time data to bedside nurses, patient care technicians, patients and families. Patients are able to interact with the device and become more participatory in their offloading and repositioning techniques. Nurses are able to assess the effectiveness of their interventions during turns and immediately thereafter.

Conclusion

- With more accurate data, interventions are tailored to the patient population. **Specifically, utilizing new knowledge of the prevelance of device related pressure injuries has resulted in practice changes that reduced the number of oral mucosal pressure injuries from endotracheal tubes to zero.**
- Implementing a weekly time to evaluate all patients has afforded nurses a new opportunity to reevaluate their offloading and prevention strategies.
- Prompt discovery of stage 1 pressure injuries increases early intervention and may halt progression of injury.

References

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