The Skin Saver's Journey in preventing pressure Ulcers in the ICU

Authors:Aamina Khan RN,CCN.Miri Jang, Quality Management Specialist,
Erna Van Der Merwe RN, Dr.Anne Blunden RN,PHD, Ahmad M.Al Enezi MD,FCCP, Ass.Prof.

بسم الله الرحمن الرحيم

وَتَحْسَبُهُمْ أَيْقَاظًا وَهُمْ رُقُودٌ وَنُقَلِّبُهُمْ ذَاتَ الْيَمِينِ وَذَاتَ الشِّمَالِ وَكَلْبُهُم بَاسِطٌ ذِرَاعَيْهِ بِالْوَصِيدِ لَوِ اطَّلَعْتَ عَلَيْهِمْ لَوَلَّيْتَ مِنْهُمْ فِرَارًا وَلَمُلِئْتَ مِنْهُمْ رُعْبًا

18:18 Surat Al -Kahf (The Cave)
And you would think them awake, while they were asleep. And we turned them to the right and to the left, while their dog stretched his forelegs at the entrance .If you had looked at them, you would have turned from them in flight and been filled by them with terror

Context:
The Skin Saver Team was created by the General Intensive Care Units in January 2013. The team comprises multidisciplinary members of risk management lead nurses, physicians and wound care management staff. The project was completed in August 2013.

Problem:
In 2012 HAPU's prevalence study at King Fahad Medical City (KFMC) showed that the use of incontinence sheets increased the risk of acquiring pressure ulcers leading to hospital acquired infections (HAI's) and an extended length of stay and patients harm.
'Controlling the heat and moisture levels of the skin surface, known as skin microclimate management, also plays a significant role in the prevention and control of pressure ulcers.' Williamson, R., Sauser, F. (2009).Linen Usage Impact on Pressure and Microclimate Management. Hill-Rom .The incidence of HAPUs in nursing facilities is 0.20 to 0.56/1000 patient-days, which may increase to 14/1000 patient-days among those patients at high risk. The HAPU rate at KFMC-ICU units was between 9-15 per 1000 patient days for the last quarter of 2012. Our objective is a 30% lowering of HAPUs rates by December 2013.

Assessment:
A brainstorming meeting and ISHIKAWA Analysis were conducted to assess the issue and design solutions.
The Root Causes analysis of 2012 HAPU prevalence Study identified the vital few causes contributing to PU as excess of linen savers, lack of compliance with the nursing standard and an inconsistent monitoring of the procedure.

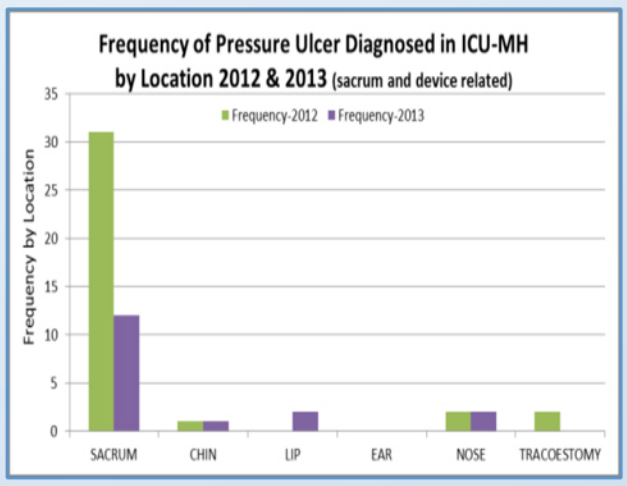
Engaging staff
Improving patient safety is one of the KFMC strategic objectives. The skin saver team presents on quarterly basis progress reports regarding the status of HAPUs to the main hospital quality improvement Committee.
Hospital acquired pressure ulcer rates is a nursing performance indicator which is included in the nursing competency assessment.

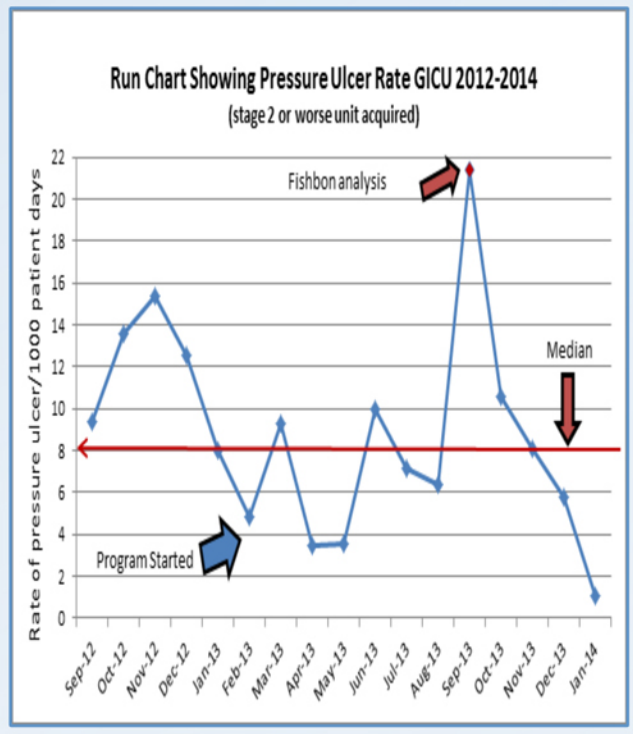
Intervention
- Improve compliance with a maximum of 1 incontinence sheet per bed, including a diaper.
- Improve compliance with skin risk assessment performed at admission and skin assessments every 12 hours (Night and Day Shifts) and documentation of findings.
- Improve compliance with the standardized pressure Ulcer Prevention pathway.
- Improve compliance with the tool used to identify high risk patients by each nursing shift during morning huddles and change of shift handoff.
- Improve compliance with electronic database for pressure ulcer reporting.
- Establish monthly Spot Checks
- An online Annual Competency was included in the Educational Website for annual completion.
- Pressure ulcer Awareness drive with interactive learning sessions related to the PUSH Tool and documentation compliance.
- Collaborative team approach among staff through effective and transparent communication during Handoff.
- Acquire special dressings and PU prevention equipment and tools

Strategy for Change
The skin saver team defined the project charter and selected FOCUS-PDCA as the performance improvement methodology. Changes were assessed by the effectiveness of the measures and the rate of HAPU.

Measurement of Improvement
Data were collected by the skin saver team daily. The number of PU were entered into Excel spread sheet and sent to wound care management team and reported in the opportunity report system (Datix). The number of HAPUs per 1000 patient was measured and the rates were compared to the pre-interventions rates.

Effects of Changes





The HAPU rates dropped from 8 in 1000 patients days in January 2013 to 1 in 1000 patients days in Jan 2014.
The peak that was reported in September 2013 was studied and fishbone analysis was made to evaluate the causes of the high rates (21 in 1000 patient days).

Lessons Learned
- HAPU risk assessment standardization including a real time audit of the process is fundamental in sustaining an appropriate nursing practice.
- Patient safety culture needs to be embedded in nursing standard practice.
- Quarterly Creative Workshops are essential for staff updates on Best Practice Standards.
- Wound care manual needs to be tailored to specific conditions/ unit specific areas are essential.
- On-going spot checks and documentation on a monthly basis is mandatory.
- Standardized data collection process, and training of audit tools.
- Respiratory Therapists share close responsibility toward pressure ulcer development related to devices such as BiPAP and endotracheal tube and device related incidents.
- Tracking of healing pressure ulcers from community acquired incidents is necessary.
- Weekly updates of pressure ulcers and action plans from each area, for early intervention in case of increasing rates are noted.

Conclusion
A significant reduction in the frequency of sacrum pressure ulcer in intensive care units from 31 cases in 2012 to 12 cases in 2013 (39% reduction) (P value < 0.0001) in the ICU.

Message for Other's
It is imperative that the organization leaves no doubt in the minds of patients and their families, that every measure to prevent pressure ulcers is undertaken. The event of a pressure ulcer incident should be related to anything but heedlessness.

email:aamkhan@