Process Improvement Project: ICU Pressure Injury Reduction

Ann Taylor, MS RN, CWOCN

Wellstar Spalding Regional Hospital, Griffin, GA

INTRODUCTION

Our facility has 22 Intensive Care (ICU) beds. Nineteen (19) pressure injuries were reported from January 1, 2018 to August 1, 2018.

This number was more than the rest of the 4 other nursing units reporting combined in the same time period.

It was confirmed through random chart audits performed by the Wound Ostomy and Continence Nurse (WOC nurse) that many critically ill patients were not being scored appropriately at risk by the staff.

OBJECTIVES

The objective for this project was to reduce the number of acquired pressure injuries in the ICU by learning what barriers to prevention or care exist as identified by the nursing staff.

METHODS AND MATERIALS

Staff were given the information regarding the 19 occurrences of Pressure Injury (PrI) in the preceding 12 months.

An anonymous open ended 4 question survey was given to staff identifying scope of problem; factors contributing to rates; access to appropriate tools for prevention and pressure injury knowledge. During the month of August the staff completed :

- NDNDQI training modules
- WOC nurse lead education that included :
  - -Braden education; A pre and post training Braden scenario were administered.
  - -Review of the hospital system based prevention pressure injury prevention and treatment policies

The collated results of the needs survey were discussed with ICU staff and reported formally to local Administration and the Nursing Center for Clinical Excellence.

NEEDS ASSESSMENT & INSTRUCTIONS

Pressure Injury Needs Assessment: **No name required**

1. Do you think there is a pressure injury problem in ICU?
Why?

2. What do you think has contributed to the pressure injuries over the last year?
Why?

3. Do you have the tools needed to prevent pressure injuries?
Why?

4. Do you have the knowledge to prevent pressure injuries?
If no, what do you need ?

1. **Do Braden scenario WITH name**
2. **Turn assessment and Braden in the file folder for completed assessments**
3. **Next assignment is the NDNQI pressure injury modules.**

*No names were required to allow full disclosure of answers to WOC Nurse

METHODS AND MATERIALS

NDNQI Pressure Injury Training Modules 1-4 were assigned and proof of completion with the site certificates were completed by the ICU nurses

NDNQI
A Press Ganey Solution

Authors:
Sandra Bergquist-Beringer, PhD, RN, CWCN
Jan Davidson, MSN, RN
Janet Cuddigan, PhD, RN, CWCN, FAAN as an author

Created by the National Database of Nursing Quality Indicators® (NDNQI®)

Pressure Injury Training 6.0

Module One
Pressure Injuries and Staging
Module Two
Other Wound Types and Skin Injuries
Module Three
Pressure Injury Survey Guide
Module Four
Community vs. Hospital/Unit Acquired Pressure Injuries

Please note continuing education credit is not available for the 6.0 version of the Pressure Injury course. Please contact your NDNQI representative if you wish to learn more about the 7.0 version of the course.

Begin

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RESULTS

Education Braden Scenario

Braden pre and post education scores:
Pre education 12 of 38 did not score the patient as high risk.

Post education:

100% scored the patient as high/very high risk.

BRADEN	PRE SCORE	POST SCORE	Range
7	-	1	
8	-	4	
9	5	9	< to 9 VERY HIGH Risk
10	7	14	10-12 HIGH RISK
11	7	2	
12	5	3	
	The scenario is a high risk patient 10 is the correct answer		
13	6	-	13-14 MODERATE RISK
14	4	-	
15	1	-	15-18 AT RISK
16	1	-	
17	-	-	
18	-	-	
Total	38	35	*New hire, class first (3)

RESULTS

Twenty four (24) respondents felt there was a PrI problem in the ICU; 3 possibly did; 4 did not believe the PrI rate was a problem.

100% of staff reported they had the knowledge to prevent PrI.

Staff identified intrinsic and extrinsic factors affecting bedside care and tools needed for preventive care.

Intrinsic Factors included: Pt comorbidities; patient non compliance; Vasopressors; not charting PrI present on admission; Obesity.

Extrinsic factors included: The patients are not turned; failure to turn when short staffed; understaffed; 3:1 nurse ratio; high acuity patient 'ties' up the nurse; no one to assist to turn; not enough techs; techs not initiating turning on their own; long admissions; inappropriate admission cause high nurse patient ratios; beds need replacement.

In regard to tools needed to prevent PrI the staff reported: 16 had the tools needed; 7 had the tools "at times"; 1 reports it is improving; 8 report not having tools needed to prevent PrI. Need for replacement beds was the overwhelming need reported from staff.

Braden accuracy improved 31% after education.

KEY issues identified:

Lack of techs, critical staffing levels and the need for replacement bed surfaces were identified as key contributors to the PrI rates consistently through out the questionnaire.

Staff admitted inability to turn patients, at times, due to staffing constraints/high acuity patients.

Post needs assessment , data reporting and staff education:

Open Registered Nurse positions were filled

2 techs per shift were approved for 2019

ICU received 22 new pulmonary care beds in October

There were 6 pressure injuries reported in the following 11 months compared to the previous 19 in 12 months before the process improvement project. Three of six were device related.

CONCLUSIONS

The PrI rate improvement is likely reflective of the improved staffing and the appropriate surfaces all patients are placed on upon admission as nursing knowledge of prevention was adequate while the staffing challenges and the inadequate support surfaces were identified as the most pressing issues for preventive care from the needs assessment.

Staffing levels should be considered in root cause analysis when PrI occurs.

Replacing 22 beds in an ICU is high cost capital expense that had caused barriers to care prior to this project and was in progress although not confirmed prior to and during this assessment.

Open ended questions and anonymous reporting allowed issues to be clearly identified from the nurses needs at the bedside showing PrI reduction is a multifactorial care issue.

REFERENCES

https://members.nursingquality.org/NDNQIPressureUlcerTraining

https://www.in.gov/isdh/files/Braden_Scale.pdf

CONTACT & ACKNOWLEDGEMENTS

Ann Taylor, MS, RN, CWOCN
Ann.taylor@wellstar.org

www.PosterPresentations.com