Identifying and Managing the Patient at Ultra High Risk for Developing a Pressure Ulcer

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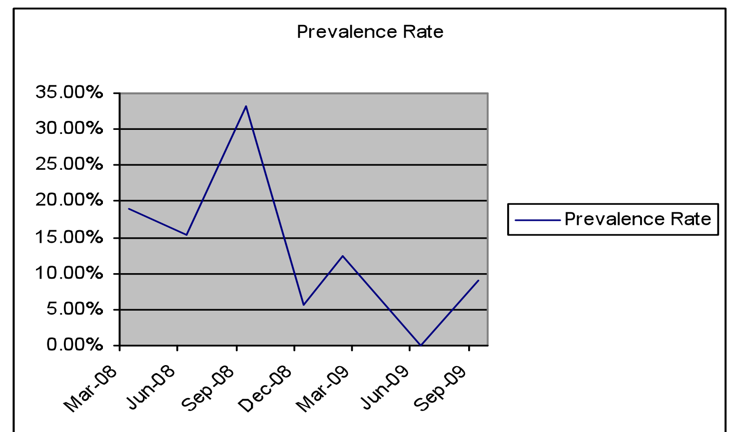
Background:

Following two Stage IV pressure ulcers in the fall of 2008, an interdisciplinary group formed of a physician, two WOCNs, a Nurse Manager & Director, an ICU nurse educator, a Dietician, and a Physical Therapist developed a two part practice improvement plan.

The unit is a 31 general adult ICU at a Level I Trauma facility in Austin, Texas. Prior to the implementation of the process improvement project the unit had the following pressure ulcer prevention techniques in place as a standard of care: Patients were turned every 2 hours, bathed every 24 hours, incontinence care (including fecal containment devices on some) with every soiling, and use of the network "SKIN" bundle. The "SKIN" Bundle was an acronym that included: S - appropriate Surface, K - Keep Turning, I -Incontinence Care, N – addressing Nutrition. Since March of 2008, there had been a steady decline in pressure ulcer prevalence in the ICU.

Survey Month	HAPUs	ICU Patients Surveyed	Prevalence Rate
Mar-08	4	21	19.00%
Jun-08	2	13	15.40%
Sep-08	7	21	33.30%
Dec-08	1	18	5.60%
Feb-09	2	16	12.50%
Jun-09	0	19	0%
Sep-09	2	22	9%



Process Improvement Plan:

The second aspect of our two-part plan focused on improving the identification of patients at Ultra High Risk for pressure ulcers. Following a comprehensive literature search as well as experiential and anecdotal evidence, a set of nine criteria were identified. Meeting any TWO or more of the criteria will trigger additional interventions above and beyond the SKIN bundle:

- (This first point applies on the day of admission only) Transport time to the facility greater than 2 hours or time in ER longer than 4 hours.
- Any time in the OR for longer than 3 hours
- Morbidly obese with a BMI greater than 40
- Heavily sedated (i.e. sedation score ≥ 3 {frequently sedated, hard to arouse OR unresponsive}, or paralyzed (either chemically or functionally following a spinal cord injury)
- Over 65 years of age
- Pressure ulcers present on admission
- Excessive muscle tone (i.e. patient with contractures)
- Two or more vasopressors infusing
- Braden score is less than or equal to 9

Interventions:

Once the patient is identified as Ultra High Risk for pressure ulcers, the following interventions were implemented:

- A consult to the WOCN regardless of skin integrity
- Use of Ultrasorb® pads instead of chucks under the patient to absorb excess moisture
- Prioritize repositioning and use of turning wedges, making sure to float the coccyx and heels
- If any skin alteration is noted (breakdown, fungal rash, dermatitis, etc.), re-consult the WOCN for follow up on this change

All of these interventions were bundled together making an 'Ultra High Risk for Pressure Ulcers' problem on the Nursing Plan of Care

Ultra High Risk for Pressure Ulcer Outcome: Prevention of pressure ulcer ID'd by: __________	H ____________ M ____________ L _____________ Resolved: __________	1. Send WOCN referral 2. Use Ultrasorb pads in place of regular Chux Pads 3. Use turning wedges for repositioning no less than q 2 hours 4. Re-consult WOCN for any skin alteration(s) or changes noted. 5. Reposition chair-bound patients no less than q 20 minutes

Implementation:

Implementation included adding the identification criteria to the critical care flow sheet, providing education about how to complete the newly added section, the rationale for the change, and interventions associated with meeting Ultra High Risk criteria. Ultrasorb® pads were added to our Unit supply room and Turning Wedges were ordered for every patient room. Patient rounding, use of the ICU SKIN Champions to help promote the practice change and periodic chart audits for compliance were also essential aspects of implementation.

Patient Name ______________ Date ______________ MR # ______________

BRADEN SCALE FOR PREDICTING PRESSURE SORE RISK *Complete on ADMIT and DAILY*

					Score
Sensory Limits	1-Completely	2-Very	3-Slightly	4-None	
Moisture	1-Constantly	2-Very	3-Occas.	4-Rarely	
Activity	1-Bedfast	2-Chairfast	3-Walks Occas.	4-Walks Freq.	
Mobility	1-Immobile	2-Very Limited	3-Sl. Limited	4-None	
Nutrition	1-Very Poor	2-Prob. Inadeq.	3-Adequate	4-Excellent	
Friction & Shear	1-Problem	2-Potent. Problem	3-No Apparent Problem		
Total Score					

23-19: No Risk 10-12: High Risk

Ultra High Risk Criteria - Two or more of the following	
☐ (ADMISSION ONLY) Transport time (> 2 hrs) / ER Time (> 4 hrs)	
☐ OR > 3 hrs	☐ Pressure Ulcer on Admit
☐ BMI > 40 [wt (lbs) / ht² (in)] x 703	☐ Muscle tone (eg contracture)
☐ Sedated (Score >3) / Paralyzed	☐ Two or more vasopressors
☐ Age > 65	☐ Braden ≤ 9
Skin Issue(s) desc. ▼	Patient meets criteria? Add problem to POC

Evaluation:

A process issue was identified with patients being identified as Ultra High Risk one day and then not meeting criteria the next. Facilitating hand-off between shifts was also noted to be a gap. Following consultation with the WOCNs, the decision was made that once patients are identified as Ultra High Risk, interventions should continue for at least five days. In addition, a space was added to our Kardex to note that the patient met criteria and the date. Additional follow up is on-going.

WOUND CARE:	☐ Pressure Ulcer Ultra High Risk DATE: __________
☐ WOCN Referral Re:	Tracking #:
☐ WOCN Referral Re:	Tracking #:

Reference

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