

Project Submission:
2009 Delaware Valley Patient Safety Award

**HOSPITAL OF THE
UNIVERSITY OF PENNSYLVANIA**

*“Decreasing Hospital-Acquired
Pressure Ulcers through Prevention Protocols”*

Decreasing Hospital- Acquired Pressure Ulcers through Prevention Protocols

The Health Care Improvement Foundation 2009 Delaware Valley Patient Safety Award

Abstract:

Pressure ulcer incidence rates vary considerably by clinical setting—ranging from 0.4% to 38% in acute care, from 2.2% to 23.9% in long-term care, and from 0% to 17% in home care.¹ (Lyder, 2003) It is estimated that pressure ulcer prevalence (the percentage of patients with pressure ulcers at any one point in time) in acute care is 15%, while incidence (the rate at which new cases occur in a population over a given time period) in acute care is 7%.² (Wound, Ostomy, and Continence Nurses Society, 2004). This equates to approximately 2.5 million patients treated for pressure ulcers in acute-care facilities each year.³ (Lyder, 2003).

Pressure ulcers can lead to fatal secondary infections such as septicemia and are an important cause of preventable mortality in the United States. The development of pressure ulcers can interfere with functional recovery, may be complicated by pain and infection, and can contribute to excesses in hospital length of stay. The presence of pressure ulcers is a marker of poor overall prognosis and may contribute to premature mortality in some patients⁴ (Redelings, 2005)⁵ (Reddy, 2006)

The cost of treating a pressure ulcer ranges from \$2,000 to \$70,000 per wound, with the total costs for the average hospital being between \$400,000 and \$700,000 annually⁶ (Clarke, 2005). Starting in October 2008 CMS eliminated reimbursement for “reasonably preventable” hospital- acquired conditions including pressure ulcers. If a patient acquires a significant pressure ulcer in our care, we will not be paid for the care of the pressure ulcer including any extended length of stay.

In light of these staggering statistics and the potential loss of revenue, the Skin Integrity Committee of _____ began a project to look at our in-house pressure ulcer rate and analyze the contributing factors. Our first step was to look at our current risk assessment tool. The generally accepted and validated tool recommended is the Braden Scale. _____ was using a modified version of the Braden Scale that decreased reliability and validity of our results. Additionally policies instructed staff to consider a patient at risk when the Braden score was 14 or below. A search of evidence-based literature by the Skin Integrity Committee revealed that the best practice was to consider a patient at risk with a Braden score of 18.

Next the committee reviewed our current preventative strategies. We found that at risk patients were not always placed on pressure relieving surfaces and heels were not routinely offloaded. Incontinence care and products needed to be reviewed. We also discovered that staff needed education on the damaging affects of soap. Finally the committee identified that staff was unsure of best practice in regards to prevention of pressure ulcers and how to assess wounds.

Nosocomial pressure ulcer prevalence monitoring on all in-patient nursing units in calendar year 2007 yielded a **5.40 percent** baseline. The Goal of our project was to decrease in-house pressure ulcer

rates, providing quality care to our patients while decreasing the costs and resulting increased length of stay for these patients.

Title:

Decreasing Hospital- Acquired Pressure Ulcers through Prevention Protocols

Goals:

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Baseline Data/Interventions/Results:

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Assessment of patients at risk for pressure ulcer

We introduced a standardized house-wide assessment approach by using the full validated Braden Scale to properly identify patients at risk. We increased the Braden scale “at risk” threshold from 14 to 18 to better capture the at risk population. The formal consult from the certified wound care specialist now occurs at a Braden Score of 18 or below. Staff education on the changes was done by the committee.

Clinical Practice Modification / Decreasing Variations in Care

1. Prevention Bundle

The Skin Integrity Committee created a “_____ Pressure Ulcer Prevention Protocol _____”. This Prevention protocol acts as a guide to preventive care for the staff using the mnemonic **PREVENTION**. It is shown below,

PREVENTION PROTOCOL

P - Pressure Redistribution:

Order a pressure relieving surface for all patients with Braden scores \leq to 18 by calling 9442 (Do not order for those units who have this surface as their standard mattress)

Cushion on chair for at risk patients that are OOB

Use pillows to keep bony prominences such as knees and ankles from direct contact

Use lifting devices when moving and transferring patients and obtain a trapeze for patients that can use one

R - Risk Assessment:

Braden scoring tool done daily and on admission, and upon transfer to your unit.

Scores of \leq 18 consult WOCN at 8828

E - Evaluation of Skin every shift:

Evaluate skin every shift and upon transfer to your unit on Admission and Discharge.

V - Visualize and Measure:

Visualize skin each shift and measure wounds upon discovery, every Thursday, on admission and on discharge.

E - Elevate Head of Bed \leq 30 degrees:

Head of Bed $<$ 30 degrees to decrease shearing unless contraindicated by condition or VAP bundle.

N - Nutrition: Nutrition consults for all at risk patients determined by Nursing Admission Assessment Form, condition or presence of a wound.

Vitamin C and Zinc per physician’s order for patients with wounds

Check Pre- albumin for all patients with a stage III, IV or multiple II’s

T - Turning:

Turn patients in bed every 2 hours and chair bound patients every hour

Avoid placing patients directly on trochanters when in side-lying position
Teach patients and families the importance of turning and involve in Plan of Care.

I - Incontinence:

Incontinence bundle in room of all incontinent patients with Ph balanced foam cleanser, paper washcloths and moisture barrier. Avoid hot water and scrubbing.

Q - Offload Heels:

Offload heels on pillows or with boots
Multipodus boots for footdrop only
Apply skin prep for at risk heels

N - No Diapers for bedfast patients:

Use absorbent pads
Consider use of a condom catheter or fecal containment device
Toilet ambulatory patients
Implement measures to decrease friction with bedpans.

2. Incontinence Bundle

Pilot of "Incontinence Bundle" on one unit and then "rolled out" to remainder of the facility. When an incontinent patient is admitted staff now obtains something we call an "incontinence bundle". The "bundle" includes paper washcloths, a foam cleanser and a moisture barrier all packaged together in a plastic bag. This eliminates the need for the nurse to obtain these supplies individually and assures that they are all available at the bedside when needed. An additional goal was to decrease variability of care by having the recommended products packaged together. We had discovered that staff will use whatever is in a patient's room, including hand soap, in the absence of appropriate supplies. An Educational campaign highlighting the damaging results of soap became part of the initiation of this part of the project.

3. Education

Skin and Wound care class added for all new staff

Education of all staff at initiation of _____

Poster of the _____ displayed on each unit and 8 ½ replicas placed in each bedside nook for easy reference.

Hands- on presentation at skills fair for all nursing staff

Education booth at Safety Fair and Platinum Star Award presented to the Skin Integrity committee for Performance Improvement

Monthly surveillance rounds performed in conjunction with prevalence giving an opportunity to teach staff and encourage a "prevention culture"

4. Nurse Champions

Skin Integrity Champions chosen on each unit as an outgrowth of the Skin Integrity Committee.

Each Champion required to complete educational segments from NPUAP (National Pressure Ulcer Advisory Panel), as well as, an optional clinical with the WOCN (wound, ostomy, continence) specialist.

Ongoing monthly education in conjunction with Skin Integrity Committee meetings

Continued and ongoing review of evidence- based practices in regards to prevention of pressure ulcers and revision of strategies based on current research.

Each Skin Care Champion acts as a representative on their respective clinical unit to provide ongoing staff training and monitor prevalence rates.

5. Administrative Systems and Capital expenditures

Commitment from Administration to outfit 7 of out 11 units with 100% pressure relieving mattresses as the standard mattress ,thereby eliminating variances in the procurement of a pressure relieving mattress.

Skin care policies and clinical practice guidelines revised

WOCN specialist hired in 2007 with responsibilities for

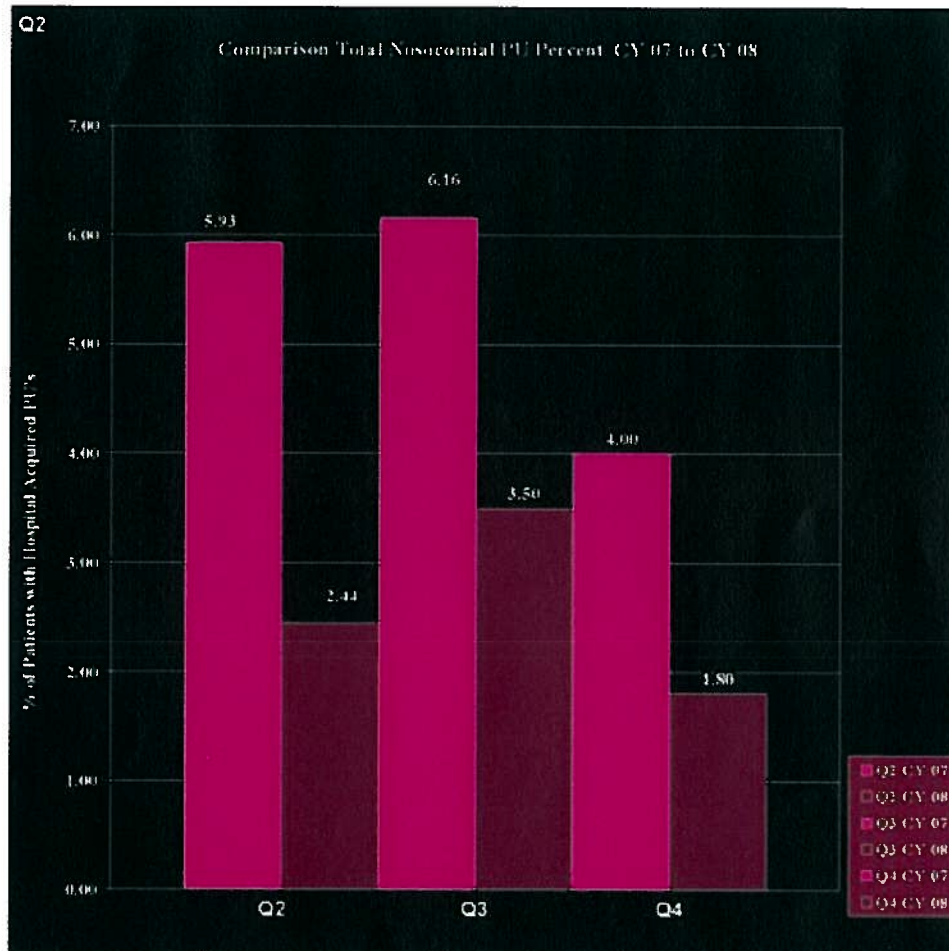
Chair of the Skin Integrity Committee

Investigating all in-house pressure ulcers

Consults for all pressure ulcers and all patients with a Braden score of less than or equal to 18

Calculates prevalence rate and reports to leadership

Data collected post _____ implementation collected from 4/08- 12/08. Results demonstrated a reduction from baseline to 2.50% which interprets to a total 46% reduction in nosocomial pressure ulcer development at _____. The pressure ulcer rate has continued to decrease since the culminating of the original project to a current rate for June 2009 of 0.92%.



How this initiative may be replicated throughout the region:

There were three objectives keys to making this project successful:

1. The dedication of our Skin Integrity Champions.
2. Demonstrated commitment of senior leadership to initiatives and needed capital expenditures.
3. The implementation of the _____ Pressure Ulcer Prevention Protocol.