A Multidisciplinary Approach to Hospital-Acquired Pressure Ulcer Reduction
Peninsula Regional Medical Center

Program/Project Description
At the end of Fiscal Year 2009, PRMC had a pressure ulcer rate of 3.1% as per hospital-collected data and a one-day prevalence survey done in February, 2009 showed an HAPU rate of 9.5%. It is estimated that the organizational cost of every hospital-acquired pressure ulcer (HAPU) averages over $43,000. Additionally, HAPU incidence is a "never event" that we knew we had to prevent. Our goal was to reduce our HAPU rate by 50% to 1.5% or less. We monitor our rates via our Midas data collection system monthly and via quarterly prevalence studies, so we would know if we were successful by seeing the 50% reduction in both of these.

Process.
The "Skin Integrity Team" which had been in place prior to February 2009, was redesigned to include mostly multidisciplinary bedside clinicians. Included in the team were nurses (our "skin champions") from all divisions, 2 physicians, a physical therapist, a dietician, a clinical nurse specialist, a coding specialist, a clinical analyst from our PI department, and our CWOCN from the wound care center. This new team was called the Pressure Ulcer Prevention (PUP) Team. Our clinical analyst had been recently trained in the Six Sigma process and she led our team through the basic tools of Six Sigma, which helped us analyze our process and identify the key drivers that led to our poor performance. These drivers included: (1) confusion and errors with our treatment versus prevention order sets, (2) lack of physician documentation regarding "present on admission" status, (3) lack of staff knowledge regarding the appropriate recognition of "wounds" versus pressure ulcers and staging of pressure ulcers, and (4) computerized documentation processes that were confusing and difficult to follow.

Solution
The team came up with five solutions to the above issues. First, we implemented quarterly pressure ulcer prevalence/incidence surveys to monitor patient condition and staff compliance. The surveys heighten awareness among our "skin champions" and help us maintain the improvements on an ongoing basis. One of our physician team members has been instrumental in our electronic record build and he helped us develop an automated order set for treatment orders which mandates that the physician determine present on admission status prior to submitting the order. We also separated out what was formerly a Prevention physician order and made it a Nursing Protocol that may be ordered by any Registered Nurse upon discovery of a high-risk patient. We provided an intense 4 hour workshop for all of our skin champions, clinical specialists, and managers on skin assessment and pressure ulcer staging. Our clinical analyst created a pressure ulcer status concurrent review database which included the IHI process measures of: (1) percent of patients with completed pressure ulcer admission assessment, (2) percent of patients reassessed daily using the Braden scale, (3) percent of patients who are identified as being at risk, and (4) patients who have nursing-documented evidence of an existing pressure ulcer. This database is used by our skin champions, CNS's, and managers as a quick chart review to help their peers provide good care. It is also used by our coders so they may immediately intervene with physicians to provide appropriate documentation of both present on admission and hospital acquired ulcers. (See attached screen shots of Physician treatment orders I-Form and Nursing protocol for prevention)

Measurable Outcomes.
At the close of fiscal year 2010 our pressure ulcer rates were 1.2% which exceeded our goal of a 50% reduction in our rate. Additionally, our February, 2010 prevalence survey resulted in a hospital acquired pressure ulcer rate of just 2.9% (down from 9.5% seen the year before). The results we did not necessarily expect include a strong commitment from our skin champions and pride in the work they did to reduce these rates. We now have over 30 well-trained staff members who assist with the quarterly prevalence surveys and coach their peers on pressure ulcer prevention and care. (See chart attached)

Sustainability.
The solutions we came up with were designed to be integrated into our processes rather than "extra" things the care team had to do. Because they were designed in this fashion, maintaining the solution has not been an issue. We plan to continue education with the rest of the staff and use our skin champion team to continue mentor new champions on an ongoing basis. The solutions were also done on a wide-spread organizational basis. We did not "pilot" any of these processes but rather, with the help of our skin champions, implemented them house-wide. We have, however, ensured department-level accountability by including unit-based pressure ulcer data on each unit's dashboard. These dashboards are part of the unit performance improvement plan and managers and staff are held accountable for their performance on dashboard measures by the division director and Vice President. Rates are monitored both monthly and quarterly.
Role of Collaboration and Leadership.
It was only through the work of the multidisciplinary team that we were able to discover the real issues that were causing our increased rates. Our vice President for Patient Care Services was committed to providing us staff time off the units to meet as well as staff time to collect unit-based data and perform the prevalence surveys. We were also provided time and resources for education and continue to have budgeted staff time for monthly meetings, education sessions, and studies. The rate reduction plan had been an organizational goal that we adopted as our team goal. Our physician champions were instrumental in obtaining peer support for our new order entry process. This was truly a team effort!

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Implement / Continue Pressure Ulcer Prevention Nursing Protocol

Consults
- Dietitian - Nutritional Assessment

Labs (if not done in last 72 hours)
- CBC
- Chem-8
- Pre-Albumin

Medications (choose one)
- Theragran-M 1 tablet every day plus Ascorbic Acid [Vitamin C] 500 mg PO at dinner (If patient taking PO)
- Viajet 1 packet via tube BID (adjust to daily if CrCl less than 30 mL/min) (If patient not taking PO)
- Nephrovite 1 tablet PO every day (for renal patients on dialysis)

Pressure Ulcer Staging & Treatment

**Deep Tissue Injury (Skin Intact, maroon/purple color)**
- Present on Admission: ...
- Location: Buttocks, Sacral/Coccyx, Heel, Other:
- *Affected area open to air & off-load pressure to area Other:

**Stage I (skin intact, non-blanchable, redness)**
- Present on Admission: ...
- Location: Buttocks, Sacral/Coccyx, Heel, Other:
- *Apply barrier cream liberally with bathing and any incontinent episodes; or may apply skin prep to area once daily Other:
- *Off-load pressure to area

**Stage II (skin broken, pink, or red wound bed)**
- Present on Admission: ...
- Location: Buttocks, Sacral/Coccyx, Heel, Other:
- *Cleanse wound with dermal wound cleanser & off-load pressure to area Other:
- *Prep surrounding area with skin prep pad
- *Apply Allevyn gentle/adhesive dressing
- *Change dressing every 3 days and/or PRN when soiled

**Stage III (Full thickness tissue loss, bone, tendon, or muscle not exposed)**
### Present on Admission:

**Location:**
- Buttocks
- Sacral/Coccyx
- Heel
- Other:

*Apply Solosite to wound bed, loosely filling/packing all dead space, undermining and tunneling*

*Wound Care Consult*

### Stage IV (Full thickness tissue loss, exposed bone, tendon, or muscle)

**Present on Admission:**

**Location:**
- Buttocks
- Sacral/Coccyx
- Heel
- Other:

*Apply Solosite to wound bed, loosely filling/packing all dead space, undermining and tunneling*

*Wound Care Consult*

### Unstageable (Necrotic, yellow slough, eschar- cannot see wound bed)

**Present on Admission:**

**Location:**
- Buttocks
- Sacral/Coccyx
- Heel
- Other:

*Wound Care Consult*

*Cleanse site with dermal wound cleanser and cover with Allevyn dressing*

*Apply Solosite to wound bed, loosely filling/packing all dead space, undermining and tunneling*
Pressure Ulcer Prevention Nursing Protocol

Patient: @@patient.name@@  Pt Location: @@patient.location@@  Medical Record Number: @@patient.id@@

Initiate pressure ulcer prevention nursing protocol if Braden score is 18 or less

**Activity:**
- Turn patient every 2 hours while in bed with 30 degree wedge
- Shift patient's weight every hour while in chair
- Active and/or passive ROM every four hours & PRN
- Provide assistive devices PRN (hoyer lift, trapeze, etc)
- Avoid excess linen on bed
- Provide patient and/or family the Braden education brochure

**Prevention:**
- Place on appropriate support surface based on patient's weight and stage (see policy: specialty bed/support surface utilization and monitoring). If using static air mattress on bed, hand check every shift & add air PRN
- Elevate heels off bed (utilize heel lifting device as indicated)
- Use lifting devices when repositioning
- HOB 30 degrees or less
- Avoid paper products on bed (blue pads, diapers)
- Place on disposable dry pad for incontinence/moisture
- Static air seat cushion when out of bed to chair
- Avoid massage over boney prominence
- Cleanse and moisturize with bath products daily & PRN; apply barrier protectant PRN

**For symptoms of incontinence associated dermatitis (reddenend, excoriated skin due to excessive moisture/incontinence):**
- Apply dry pad to bed & change with each incontinent episode
- Use perineal wipe with every incontinent episode
- Apply additional barrier PRN
- Manage moisture: keep skin dry
- Apply fecal incontinence device if more than 3 incontinent episodes in 24 hours
- Notify physician. Consider antifungal or steroid cream--requires order

**For symptoms of Candida (yeast rash) (red with satellite lesions):**
- Manage moisture: Keep skin & skin folds dry
- Cleanse skin with bath products and pat dry
- Notify physician. Consider antifungal cream or powder--requires order

**For Skin Tears**
- Cleanse with dermal wound cleanser & pat dry
- Prep surrounding area with skin prep pad
- Realign skin & apply steri-strips if appropriate
- Cover with non-adherent dressing (not Telfa), then cover with gauze & wrap with stretch Kerlix. Change outer dressing daily
• Notify physician

For any pressure ulcers identified: Obtain & implement Pressure Ulcer Treatment Orders (NUR-361-b)
Peninsula Regional Medical Center
Pressure Ulcer Prevention
FY 2009 - 2010

Your Prevalence

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<tr>
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<tr>
<td>Prev Including</td>
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<td>Fac Acq Including</td>
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<td>Stage 1</td>
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<td>Prev Excl</td>
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% of Patients
Overall HAPU Rates By Quarter FY 09 & FY 10