The Efforts of a Skin-Protection Task Force Significantly Decreases the Number of Hospital-Acquired Pressure Ulcers

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Background & Overview

Pressure ulcers (PUs) remain a critical health care issue, with reported incidence rates of 7% to 9% and a prevalence rate of 14% to 23% in acute care settings. It appears that these rates are worsening.

During the course of a 14-year study, the incidence of PUs at either a primary or secondary diagnosis increased from 34.5 to 71.0 per 100,000 acute care patients.

The Agency for Healthcare Research and Quality (AHRQ) reports that nearly 1 in 5 postacute care patients had PUs in 2005-2006.

The sacrum and the heel are the most frequently involved sites. During the course of a 14-year study, the incidence of hospital-acquired PUs (HAPUs) can be avoided and is often viewed as quality-of-care indicators. Implementation of an effective PU prevention protocol can reduce the incidence of PUs.1 Aspects of an effective prevention protocol include the following:

1. Frequent and systematic risk assessment
2. Frequent repositioning
3. Early implementation of pressure redistribution devices

Skin that is continuously at risk increases the damaging effects of pressure, friction and shear.2 The Institute for Healthcare Improvement (IHI) recommends cleansing at the time of soiling and at routine intervals with a per-prepared, disposable wipe that cleans, moistens, and applies a skin protection barrier.3

Northwest Community Hospital is a 468-bed hospital offering a full range of medically advanced inpatient and outpatient services including the following:

- A center for specialty medicine
- Three treatment centers
- A day surgery center
- Home health services
- An advanced imaging center

In March 2004 the Quality Assurance council identified HAPU prevalence to be above benchmark levels and sought an action plan. An acute care Wound, Ostomy, and Continence nurse specialist initiated work at the hospital in December of 2004. Using evidence-based practices focused on prevention, we evaluated the effectiveness of new and improved methods of patient skin care.

New bath product wips and skin barrier cloths for incontinence care (7/05)

- A mandatory education project on the Steadler scale (8/05)

- The introduction of advanced skin-care products (11/05)

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Methods

In January of 2006, an interdisciplinary, cross-continuum Skin Protection Task Force (SPTF) was formed to develop, implement, and evaluate interventions to improve skin protection in Northwest Community Hospital.

The team reviewed surface and skin-care products and updated skin-care protocols in February 2006 to incorporate evidence-based practices.1,2 An updated patient education plan and updated patient assessment guidelines were implemented from March to June 2006. Resource binders were placed on units.

A “Skimmates” team of representatives from each adult unit served as a resource for skin-care excellence and participated in quarterly PU prevalence studies.

- Advanced skin-care products, pressure reducing heel protector boot and compliance with barrier application significantly reduced the incidence of HAPUs.

- The critical care unit showed the greatest decrease in HAPUs, from 15.6 to 2.6. Wound-care consultants also decreased.

Average monthly compliance with the incontinence care protocol was high

- Following implementation of the new improved skin-protection protocol, compliance with barrier application matched 83%.

Results

Decreased prevalence of HAPUs

- The new skin injury prevention protocols implemented during quarters 1 and 2 of 2006 (which included the efforts of the SPTF, the protocol directions, and the skin protection products) decreased the prevalence of PUs in nearly all units.

- The first quarter of 2007 marked a significant reduction in HAPU prevalence rates below benchmark levels.

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Reduction in PU treatment cost

- The criminal annual treatment cost for HAPUs before the implementation was $195,919.7

- The criminal cost after use of the heel pressure-relieving boots was $859,000 – an annual cost savings of $1,900,112.

Conclusions

New standardized skin-care protocols for the prevention of skin injury and HAPUs, coupled with new product technology and the efforts of the SPTF, increased staff compliance and reduced the prevalence of PUs.

Implications for Clinical Practice

The findings of this study demonstrate the effectiveness of the SPTF in improving methods of skin care and implementing new products.

Adaptation of clinical pathways over time is essential for positive patient outcomes.

New standardized skin-care protocols, the preventive use of the pressure-relieving heel protector boot and compliance with barrier application significantly reduced the incidence of HAPU.

Significant annual cost savings

The use of the heel protector boot to prevent HAPUs resulted in an approximate savings of $1,900,112.

Prevention of pressure injuries is critical because the Centers for Medicare & Medicaid Services has imposed strict rules concerning nonpayment for HAPUs.

Improved patient outcomes

The SPTF was successful in identifying care inconsistencies, developing a nursing education plan, and implementing evidence-based practice strategies that resulted in improved patient outcomes.

References

1. Davis-Zeek DM, Malandrino RM. The critical care unit showed the greatest decrease in HAPUs, from 15.6 to 2.6. Wound-care consultants also decreased.

2. Average monthly compliance with the incontinence care protocol was high

3. Following implementation of the new improved skin-protection protocol, compliance with barrier application matched 83%.

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10. References

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