

PEER

Professionals Evolving Through Education and Research



The Pressure Ulcer Problem

Pressure ulcers among hospitalized patients have been and continue to be a significant problem. For example, the number of newly developed pressure ulcers (incidence) among hospitalized patients ranges from 5% to 10% (Hiser, Rochette, Philbin, Lowerhouse, TerBurgh, & Pietsch (2006). The numbers of existing pressure ulcers (prevalence) among hospitalized patients is even higher, ranging from 9% to 25% (Clarke, Bradley, Whytock, Handfield, Van Der Wal, & Gundry, 2005).

The costs associated with pressure ulcers are significant and include factors such as patient pain and suffering, direct treatment costs, and costs related to the use of hospital resources. It has been estimated that the cost of treating a pressure ulcer can range from \$12,000 to \$86,000 with a median cost of \$27,000. In addition, pressure ulcer treatment can increase nursing time by 50% (Clarke et al, 2005).

What Can We Do to Prevent Pressure Ulcers???



Assess, Assess, Assess

Prevention begins with patient assessment. The Registered Nurses Association of Ontario (RNAO) recently published a clinical practice guideline with specific recommendations related to assessment. They recommended performing a head-to-toe skin assessment upon admission and regularly thereafter paying particular attention to vulnerable areas over bony prominences. These include: the temporal region and occiput of the skull; ears;

scapulae; spinous processes; shoulders; elbows; sacrum; coccyx; ischial tuberosities; femoral trochanters; knees; malleoli; metatarsals; heels; toes; areas of the body covered by anti-embolic stockings or restrictive clothing; areas where pressure, friction and shear are exerted during activities of daily living; and parts of the body in contact with equipment.

Use sight and touch when assessing the skin. Pay attention to areas of non-blanching redness or change in color as well as changes in texture and sensation. Also look for blisters, localized edema and induration.

In addition to basic skin assessment, we need to assess patients' risk for skin breakdown. The way to do this is by using a valid and reliable tool, such as the Braden scale in combination with your clinical judgment. The Braden scale is sensitive and can identify those patients at risk for pressure ulcers 83 to 100% of the time. The Braden scale works by rating several intrinsic and extrinsic patient risk factors. Intrinsic risk factors include sensory perception, mobility, activity, nutritional status and moisture due to incontinence or diaphoresis. Extrinsic risk factors include friction and shear. Numbers are assigned to each item, and totaled to predict the level of risk.



Turn, Turn, Turn

According to the experts, turning, using a positioning schedule remains one of the most important interventions we can do. Although standard practice has been to turn patients every 2 hours, little

research has been done to see if 2 hours is optimal or not. Some patients may need to be turned more often. Therefore, develop turning schedules based on the patient's condition and level of risk. Also, use the 30 degree rule when turning to avoid putting pressure on the trochanters.


Avoid Massaging Bony Prominences

Research has shown that massage can actually decrease blood flow to the skin and degenerate tissue.

Bed Surface and Positioning

Use a waffle mattress for all at-risk patients. Additionally, for very high risk patients (Braden score of 9 or below), use a pressure relieving surface if the patient has intractable pain **or** severe pain exacerbated by turning **or** additional risk factors. When turning moderate to high risk patients, use a turning wedge to prevent contact between bony prominences. During transfer and position changes, use a lifting device to reduce friction and shear. Finally, don't elevate the HOB more than 30 degrees to prevent shear.

Promote Skin Integrity

 Promote skin integrity by ensuring adequate hydration and individualizing bathing schedules. During bathing and cleansing, avoid hot water and minimize force and friction. Further protect the skin by using lubricating moisturizers and protective barriers such as Aloe-Vesta ointment.

Manage Moisture

Manage excessive moisture on the skin related to urine, perspiration, etc. Gently cleanse skin when soiled and establish a bowel and bladder program. Consider using collection devices if the patient is incontinent.

Nutrition

Consult with the dietician for a nutritional assessment. Implement the dietician's recommendations and offer patients support with eating as needed. Research has shown that nutritional supplements can prevent formation of pressure ulcers in critically ill older patients.

Move, Move, Move

As soon as possible, get patients up and moving. For patients that cannot get out of bed perform active and passive ROM to decrease the effects of pressure on tissue.

risk. Inservices on the assessment method and interventions are being conducted. Skin care team members are: Jennie McClain, Juanita Woodfaulk, T.J. Nueros, Medhat Zakher, Geraldine Nzeata, Jennifer Thomas, Pam Nagel, Mozelle Holland, Shawn Brown, Mia Walker, Jessie Gebert, Suzanne Meeks, Therese Williams, Barb Bosnick, Christy Doudemont, Debra VanWoerden, Sandy Wright, Coleen Kingery, Joan Rodriguez, Kelly Wilkening, Cathy Boyle, and Margie McIlvenna.

We also started implementation teams that are working with the Bernadette Taylor and Vilma Sims from the Nursing Research Committee to develop creative approaches to putting the protocol into practice. The units that are piloting the new approaches are 2SP, 4E, 3W1, 3W2, and ICU - SLC. Implementation team members are: Dana Gore, Vilma Sims, Carolyn Gabor, Bernadette Taylor, Juanita Woodfaulk, Geraldine Nzeata, Cathy Boyle, Sandy Wright, and June Wyant. Watch for bulletin board on the pilot units that contain "Skin Can Win" information. We thank everyone from the skin care and implementation teams for all of their hard work. In summary, preventing pressure ulcers is a team approach. By assessing our patients for their risk of pressure ulcers and incorporating appropriate interventions, skin will win!!

References:

- Clarke, H.F., Bradley C., Whytock S., Handfield S., Van Der Wal R. & Gundry S. (2005) Pressure ulcers: implementation of evidence-based nursing practice. *Journal of Advanced Nursing*, 49(6), 578-590.
- Hiser, B., Rochette, J., Philbin, S., Lowerhouse, N., Ter-Burgh, C., & Pietsch, C. (2006). Implementing a pressure ulcer prevention program and enhancing the role of the CWOCN: Impact on Outcomes. *Ostomy/Wound Management*, 52(2), 48-59.
- Registered Nurses Association of Ontario. (2005) Risk Assessment and prevention of pressure ulcers. Retrieved June 30, 2006 from <http://www.rnao.org/Page.asp?PageID=924&ContentID=816>

Yes,



Carolyn Gabor, RN, CWOCN, our skin care specialist has worked with skin care teams at each campus to integrate the Braden scale into the trifold and to develop interventions based on pressure ulcer