The Forgotten Organ: A Team Approach to Care of the Critically Ill Patients Skin

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Disclosures

- Sage Products Speaker Bureau & Consultant
- Hill-Rom Speaker Bureau
- Eloquest Healthcare Speaker Bureau & Consultant
- Bard Speaker Bureau
Pressure Ulcer (PU) Facts

- 4th leading preventable medical error in the United States
- 2.5 million patients are treated annually in Acute Care
- NDNQI data base: critical care 7% Med-Surg: 1-3.3%
- Incidence in acute care 4.5% (Hill-Rom 2011 Pressure Ulcer Prevalence Study)
- Acute care: 0-12%, Critical care: 3.3% to 53.4% (International Guidelines)
- Most severe pressure ulcer: sacrum (44.8%) or the heels (24.2%)
- 60,000 persons die from pressure ulcer complications each yr
- National health care cost $10.5-17.8 billion dollars for 2010


Risk Factors

- Pressure
- Perfusion Instability
- Device Injury
- Shear /Friction
- Moisture

Acute Care Patient

3/17/2015
Identify Patients at High Risk
Risk Assessment on Admission, Daily, Change in Patient Condition (B)

- Use standard EBP risk assessment tool
- Research has shown Risk Assessment Tools are more accurate than RN assessment alone
- Braden Scale for Predicting Tissue Sore
  - Pressure on tissue
  - Mobility, sensory perception, activity
  - Tissue tolerance for pressure
  - Nutrition, moisture, shear/friction
  - Score 6-23

Clinical judgment of nurses alone achieve inadequate capacity to assess PU risk


Its About the Sub-Scale’s

- Retrospective cohort analysis of 12,566 adults patients in progressive & ICU settings for yr. 2007
- Identifying patients with HAPU Stage 2-4
- Data extracted: Demographic, Braden score, Braden subscales on admission, LOS, ICU LOS, presence of Acute respiratory and renal failure
- Calculated time to event, # of HAPU’s

**Results:**
- 3.3% developed a HAPU
- Total Braden score predictive (C=.71)
- Subscales predictive (C=.83)

Multivariate model included 5 Braden subscales, surgery and acute respiratory failure C=0.91 (Mobility, Activity and sensory perception more predictive when combined with moisture or shear and friction)
A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear.

Moisture increases the impact of shear and friction coefficient.

Adapted from Barb Bates-Jensen & NPUAP
TURN Study

- 4yr multisite, multidisciplinary block design study
- Nursing homes (20 sites in the US, 7 Canada)
- Purpose: Efficacy of 3 positioning schedules (2, 3, 4)
- All patients had high density foam mattresses
- Newly admitted (within 7 day) to the Nursing Home
- Random allocation (blocks of 6; 2 for each turning schedule)
  - High risk (2-, 3-, or 4-hour turn)
  - Moderate risk (2-, 3-, or 4-hour turn)
- Turned on a time schedule (turn clock)
- Outcome evaluated
  - Each turn by CNAs
  - Blinded weekly and final assessment by licensed nurse

TURN Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>All (N=942)</th>
<th>Moderate Risk (N=617)</th>
<th>High Risk (N=325)</th>
<th>P= (t-test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>85 (7.7)</td>
<td>85 (7.7)</td>
<td>85 (7.7)</td>
<td>0.36</td>
</tr>
<tr>
<td>(M ± SD)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Braden</td>
<td>12.8 (1.1)</td>
<td>13.6 (0.5)</td>
<td>11.4 (0.7)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>(M ± SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>505 (53.6)</td>
<td>336 (54.4)</td>
<td>169 (52.0)</td>
<td>0.49</td>
</tr>
<tr>
<td>US</td>
<td>437 (46.4)</td>
<td>281 (45.5)</td>
<td>156 (48.0)</td>
<td></td>
</tr>
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</table>

Baseline Characteristics the same except for dementia higher in the High risk group & Cardio dx higher in the mod risk
**TURN Results**

<table>
<thead>
<tr>
<th>Group</th>
<th>Ulcers/Group % Ulcers</th>
<th>Ulcers 2-hour % Ulcers</th>
<th>Ulcers 3-hour % Ulcers</th>
<th>Ulcers 4-hour % Ulcers</th>
<th>(p=) Wilcoxin-ordered categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>All subjects</td>
<td>19/942 (2.02%)</td>
<td>8/321 (2.49%)</td>
<td>2/326 (0.61%)</td>
<td>9/295 (3.05%)</td>
<td>0.68</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>13/617 (2.05%)</td>
<td>6/210 (2.86%)</td>
<td>0/209 (0%)</td>
<td>7/198 (3.54%)</td>
<td>0.68</td>
</tr>
<tr>
<td>High Risk</td>
<td>6/325 (1.81%)</td>
<td>2/111 (1.80%)</td>
<td>2/117 (1.71%)</td>
<td>2/97 (2.06%)</td>
<td>0.90</td>
</tr>
<tr>
<td>Moderate vs. High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.79</td>
</tr>
</tbody>
</table>

- High Risk: Older, lower BMI, eat less, more brief changes & more females
- Patients at mod & high risk can be turned q2, q3, q4
- Using best evidence based care: chair cushions, nutrition, vigilant incontinent care was important
- Cautious implementation: Braden 10-14 risk
- Need to test in acute care

**EBP Recommendations to Achieve Offloading & Reduce Pressure (A)**

- Turn & reposition every (2) hours (avoid positioning patients on a pressure ulcer)
- Repositioning should be undertaken to reduce the duration & magnitude of pressure over vulnerable areas
- Consider surface when determining freq
- Cushioning devices to maintain alignment /30 ° side-lying & prevent pressure on boney prominences
- Use lifting device or other aids to reposition & make it easy to achieve the turn
- Assess whether actual offloading has occurred

Prophylactic Dressings: Emerging Therapies

- Consider applying a polyurethane foam dressing to bony prominences in the areas frequently subjected to friction and share (B)
- Consider placement prior to prolonged procedures or continuous head elevation (B)
- Consider ease of application and removal and the ability to reassess the skin.
- Continue to use all of other preventative measures necessary when using prophylactic dressings (C)


EBP Recommendations to Reduce Shear & Friction

- Loose covers & increased immersion in the support medium increase contact area
- Use lifting/transfer devices & other aids to reduce shear & friction.
  - Mechanical lifts
  - Transfer sheets
  - 2-4 person lifts
  - Turn & assist features on beds
- Do not leave moving and handling equip underneath the patient

Current Practice: Turn & Reposition

50% of nurses required to do repositioning suffered back pain
High physical demand tasks
- 31.3% up in bed or side to side
- 37.7% transfers in bed
40% of critical care unit caregivers performed repositioning tasks more than six times per shift
Number one injury causation activity: Repositioning patients in bed

Harber P, et al. J Occupational Medicine, 27;518-524
Fragala G, AAOHN, 2011;59:1-6
Number, Incidence Rate, & Median Days Away From Work for Occupational Injuries RN’s with Musculoskeletal Disorders in US, 2003 – 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Ownership</th>
<th>Occupation</th>
<th>Total Cases</th>
<th>Incidence Rate</th>
<th>Median Days Away From Work</th>
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<td>2009</td>
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<td>RNs</td>
<td>8,760</td>
<td>51.6</td>
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<td>2010</td>
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<td>RNs</td>
<td>9,260</td>
<td>53.7</td>
<td>6</td>
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<tr>
<td>2011</td>
<td>Private industry</td>
<td>RN’s</td>
<td>10,210</td>
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<td></td>
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<tr>
<td>2005</td>
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<td>RNs</td>
<td>8,120</td>
<td>43.4</td>
<td>6</td>
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<tr>
<td></td>
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<td></td>
<td>5</td>
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<tr>
<td></td>
<td>state government</td>
<td>RNs</td>
<td>540</td>
<td></td>
<td>9</td>
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<tr>
<td>2007</td>
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<td>RNs</td>
<td>8,580</td>
<td>53.4</td>
<td>6</td>
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<td>2006</td>
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<td>9,200</td>
<td>59.1</td>
<td>6</td>
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<td>2005</td>
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<td>RNs</td>
<td>9,060</td>
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<td>2004</td>
<td>private industry</td>
<td>RNs</td>
<td>8,310</td>
<td></td>
<td>7</td>
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<tr>
<td>2003</td>
<td>private industry</td>
<td>RNs</td>
<td>10,050</td>
<td></td>
<td>6</td>
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</table>


Achieving the Use of the Evidence For Mobility & Moisture

- Breathable glide sheet/stays
- Foam Wedges
- Microclimate control
- Reduce layers of linen
- Wick away moisture body pad
- Protects the caregiver

Comparative Study of Two Methods of Turning & Positioning

- Blocked design with convenience sample of 60 patients
- SOC: pillows/draw sheet
- TAP: breathable glide sheet/foam wedges/wick away pad

**Results:**
- Nurse satisfaction 87% versus 34%
- 30° turn achieved versus 0-15 in SOC
- SOC group required more resources

<table>
<thead>
<tr>
<th></th>
<th>SOC</th>
<th>TAP</th>
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<tr>
<td>Time on Product</td>
<td>7 days (1-25)</td>
<td>7 days (1-45)</td>
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<tr>
<td>Age</td>
<td>57.72 (SD 19.45)</td>
<td>57.73 (SD 17.97)</td>
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<tr>
<td>(18-89)</td>
<td>(23-92)</td>
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</tr>
<tr>
<td>Gender</td>
<td>14 Female/18 male</td>
<td>10 Female/20 Male</td>
</tr>
<tr>
<td>Mobility</td>
<td>0-1</td>
<td>0-1</td>
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<tr>
<td>BMI</td>
<td>28.02</td>
<td>30.97</td>
</tr>
<tr>
<td>PU development</td>
<td>6</td>
<td>1*</td>
</tr>
<tr>
<td>Pulled up in bed</td>
<td>3.28</td>
<td>2.58</td>
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<tr>
<td>Number to turn</td>
<td>1.97</td>
<td>1.35</td>
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</table>


Safe Patient Handling Initiative: Decreases Staff Musculoskeletal Injuries & Patient Pressure Ulcers

**SAFETY & HANDLING INITIATIVE PROTOCOL**
1. Does the patient have a total score of 11 or more including Braden mobility score of 4 or 5 on a 0-3 scale of 4?
2. Does the patient have a M1/A1/1 or higher on mobility index? If yes, use a 3 bullet mark for mobility and remember the patient still needs to be turned every 2 hours.
3. Does the patient have a history of pressure ulcers?
4. Does the patient report pain after positioning for >15 minutes?
5. Does the patient report difficulty in positioning?

**RESULTS**
- 28%↓ $184,720 savings
- 58%↓ $247,500 savings

Way H, Presented at 2014 Safe Patient Handling East Conference on March 27, 2014
In-Bed Technology

EBP Recommendations to Achieve Offloading & Reduce Pressure

- Turn & reposition every 2 hours (avoid positioning patients on a pressure ulcer)
  - Use active support surfaces for patients at higher risk of development where frequent manual turning may be difficult
  - Microclimate management
  - Early Mobility programs
  - Seated support surfaces for patients with limit mobility when sitting in a chair

Support Surfaces In Critically Ill Patients

- Comparison cohort study of 2 different support surfaces in critically ill patients
- 52 critically ill patients with anticipated 3 day LOS in a 12 bed cardiovascular unit in a University Hospital in the Mid-west were included until d/c from ICU
- 31 patients: low air-loss weight-based pressure redistribution-microclimate management bed
- 21 patients: integrated powered air redistribution bed
- Measured: positioning, skin assessment, heel elevation

**Results:**
- Mean LOS 7 days (on the surface equal amount of days)
- LAL-MCM bed= zero pressure ulcers
- IP-AR bed = 4/21 or 18% (p=0.046)


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Any Work on Skin Should Be Incorporated into a Progressive Mobility Protocol

Outcomes of Early Mobility Program

- ↓ incidence of skin injury
- ↓ time on the ventilator
- ↓ incidence of VAP
- ↓ days of sedation
- ↓ delirium
- ↑ ambulatory distance
- Improved function

Thomsen GE, et al. CCM 2006;36;1119-1124
Winkelman C et al, CCN,2010;30:36-60
EBP Recommendations to Achieve Offloading & Reduce Pressure

- Turn & reposition every 2 hours (avoid positioning patients on a pressure ulcer)
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- Microclimate management
- Early Mobility programs
- Seated support surfaces for patients with limited mobility when sitting in a chair


Out of Bed Technology
Current Seating Positioning Challenges

Uncomfortable

Airway & Epiglottis compressed

Lack of Body Alignment

Shear/Friction

Sacral Pressure

Frequent repositioning & potential caregiver injury

Potential fall risk

Repositioning Patients in Chairs: An Improved Method (SPS)

- Study the exertion required for 3 methods of repositioning patients in chairs
- 31 caregiver volunteers
- Each one trial of all 3 reposition methods
- Reported perceived exertion using the Borg tool, a validated scale.

Method 1: 2 caregivers using old method of repositioning
246% greater exertion than SPS

Method 2: 2 caregivers with SPS

Method 3: 1 caregiver with SPS
52% greater exertion than method 2

Fragala G, et al. Workplace Health & Safety. 61:141-144
EBP Recommendations to Achieve Offloading & Reduce Pressure

- Ensure the heels are free of the bed surface
- Heal-protection devices should elevate the heel completely (off-load) in such a way as to distribute weight along the calf
- The knee would be in slight flexion
- Remove device periodically to assess the skin

Successful Prevention of Heel Ulcers and Plantar Contracture in the High Risk Ventilated Patients

53 sedated patients over a 7 month period

**Study Inclusion Criteria**
- Sedated patient > 5 days
- May or may not be intubated
- Braden equal to or less than 16

**Procedure**
- Skin assessment and Braden completed on admission
- All pts who met criteria were measured for ROM of the ankle with goniometer, then every other day until pt did not meet criteria
- Heel appearance, Braden and Ramsey scores were assessed every other day and documented
- Identified and trained ICU nurses completed the assessments

**Results**

Quality Improvement Initiative to ↓ FAHPU’s

- 4 tier Process
- Partnership
- Comprehensive product review
- Education & engagement
- Support structures & processes

Risk Factors

- Pressure
- Shear /Friction
- Moisture

Acute Care Patient

18th Annual Conference of the Canadian Association of Wound Care, November 8-11, 2012, London, Ontario
### Moisture Injury: Incontinence Associated Dermatitis

- Inflammatory response to the injury of the water-protein-lipid matrix of the skin
  - Caused from prolonged exposure to urinary and fecal incontinence
- Top-down injury
- Physical signs on the perineum & buttocks
  - Erythema, swelling, oozing, vesiculation, crusting and scaling

Brown DS & Sears M, OWM 1993;39:2-26

### IAD Assessment Tool

**Hospital Survey on Incontinence & Related Skin Injury**

**Unit / Work Area**
- [ ] Home Health [ ] Inpatient [ ] Home Care [ ] Long-Term Care [ ] Skilled Nursing Facility [ ] Acute Care [ ] Emergency Department [ ] Operating Room

**Date of Survey**

**Patient Census of Unit at Time of Survey**

**Incontinence Collection Products**
- [ ] New [ ] Reuse of wizard 
- [ ] Disposable [ ] Non-disposable

**Incontinence Change & Skin Protection**
- [ ] Adult Diapers [ ] Adult Briefs [ ] Adult Underwear [ ] Adult Pull-Ups [ ] Adult Incontinent Pants [ ] Adult Unpaper Towels [ ] AdultDISP [ ] Adult Absorbent Pad [ ] Other...[ ] None

**Mouthwash**
- [ ] Yes [ ] No

**Junkin J, Selek JL. J WOCN 2007;34(3):260-269**
IAD: Multisite Epidemiological Study

- 791 patients in 20 facilities in US
- One day prevalence
  - To measure the prevalence of IAD in the acute care setting,
  - To describe clinical characteristics of IAD, and
  - To analyze the relationship between IAD and prevalence of sacral/coccygeal pressure ulcers
- Results: Incontinence 54%
  - 16.3% perineal skin damage, (23.3%) IAD
  - All patients had urinary or fecal incontinence or both
  - 26% was present on admission, 74% was hospital acquired
  - IAD was associated with an increased prevalence of sacral/coccygeal pressure ulcers (p<0.000).

Gray M. Presented at the 23rd Annual Meeting of the Wound Healing Society; SAWC Spring/WHS Joint Meeting: Denver, Colorado • May 1 - 5, 2013

Impact of Moisture

- Urinary and fecal incontinence are common in the acute care setting, occurring in more than one-third of hospitalized adults.
- Humidity/Moisture:
  - Strain at which the skin breaks is 4x greater with excess moisture than dry skin
  - Moisture increases the risk of shear & friction damage

Evidence-based Components of an IAD Prevention Program

- Skin care products used for prevention or treatment of IAD should be selected based on consideration of individual ingredients in addition to consideration of broad product categories such as cleanser, moisturizer, or skin protectant. (Grade C)
  - A skin protectant or disposable cloth that combines a pH balance no rinse cleanser, emollient-based moisturizer, and skin protectant is recommended for prevention of IAD in persons with urinary or fecal incontinence and for treatment of IAD, especially when the skin is denuded. (Grade B)
  - Commercially available skin protectants vary in their ability to protect the skin from irritants, prevent maceration, and maintain skin health. More research is needed (Grade B)


EBP Recommendations to Reduce Injury From Incontinence & Other Forms of Moisture

- Clean the skin as soon as it becomes soiled.
- Use an incontinence pad and/or briefs that wick away
- Use a protective cream or ointment
  - Disposable barrier cloth recommend by IHI & IAD consensus group
- Ensure an appropriate microclimate & breathability
- < 4 layers of linen
- Barrier & wick away material under adipose and breast tissue
- Support or retraction of the adipose tissue (i.e. KanguruWeb)
- Pouching device or a bowel management system

www.ihi.org
Current Practice: Moisture Management

Disposable Incontinence Pads

Reusable Incontinence pads

Adult diaper

Airflow pads for Specialty Beds

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www.ihi.org
Nurse Driven Interventions to Improve IAD and HAPU

- 3 phase prospective trial
- Phase 1: Standard care:
  - Foam cleanser, washcloths, hospital grade moisturizer & zinc based barrier cream at caregiver discretion
- Phase 2: Control & Intervention group
  - Control-SOC
  - Intervention; education on IAD & use of a 3-1 barrier cloth

Hall KD, The Clinical Symposium on Advances in Skin & Wound Care; September 9-12, 2011

**Figure 1. Prevalence of incidence (N = 200)**

- No incontinence (n = 122)
- Stool only (n = 46)
- Urine and stool (n = 25)
- Urine only (n = 7)

39%
EBP Recommendations to Reduce Injury From Incontinence & Other Forms of Moisture

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www.ihi.org

Fecal Containment Device

- Provides a method for managing fecal incontinence.
- Remains securely attached to ambulatory patients
- Kit contains collection bag, closure clip, drainage bag adapter, powder adhesive and adhesive remover.
Evaluation of a New, Novel Male External Urinary Management Device

Lisa M. Lucas MSN, RN, ACNS-BC, Jackie Iseler MSN, RN, ACNS-BC, Lori Gale BS, RN, WOCN-BC
Spectrum Health Butterworth Grand Rapids, MI

- 31 RN’s/ 3 units
- 42 devices
- Mean wear time > 23hrs
- Easy to apply
- 72.8% of RN’s likely to advocate for its use
- No UTI’s reported in patients using the new male external catheter

<table>
<thead>
<tr>
<th>Method</th>
<th>Alternative Male Urinary Catheter Device</th>
<th>No Preference</th>
<th>Closed Catheter</th>
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<tbody>
<tr>
<td>Easy to apply</td>
<td>59.1%</td>
<td>22.7%</td>
<td>10.2%</td>
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<tr>
<td>Satisfactory urine flow</td>
<td>50.0%</td>
<td>49.9%</td>
<td>9.1%</td>
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<tr>
<td>Stays on securely</td>
<td>47.5%</td>
<td>50.0%</td>
<td>4.5%</td>
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<tr>
<td>No urine leakage</td>
<td>45.3%</td>
<td>40.9%</td>
<td>13.6%</td>
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<tr>
<td>Wear time</td>
<td>40.9%</td>
<td>50.0%</td>
<td>9.1%</td>
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<tr>
<td>Does not cause skin</td>
<td>40.9%</td>
<td>50.0%</td>
<td>9.1%</td>
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<tr>
<td>redness/irritation</td>
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<td></td>
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<tr>
<td>Patient comfort</td>
<td>36.4%</td>
<td>59.1%</td>
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<tr>
<td>Patient acceptance</td>
<td>31.9%</td>
<td>68.2%</td>
<td>0.0%</td>
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Presented at Cleveland Clinic Conference March 2013
MDR: Quantify the problem & identify risk factors
Used subset of 8 qtrs. of pressure ulcer incidence & prevalence studies (N=2178)
MDR HAPU and HAPU groups share similar risk factors.
Overall HAPU 5.4% (113/2079)
Proportion with MDR HAPU 34.5% (39/113)
Similar incidence in ICU, step-down & medical surgical units
Medical Device Related Pressure Ulcers

- MDR HAPU Location:
  - Ear (35%)
  - Lower leg (11%)
  - Heels (8%)
- Non-MDR HAPU
  - Sacrum-coccyx
  - Heels
  - Buttocks

Having a medical device you are 2-4x more likely to develop a HAPU of any kind (p=0.0008)

Prevention Therapies to Reduce MDR-HAPU’s

Makes sure the device fits properly, consider use of a prophylactic dressing (hydrocolloid or transparent film) & inspect the skin under the device x2 daily

Risk Factors

- Pressure
- Perfusion Instability
- Moisture
- Device Injury
- Shear /Friction

Acute Care
Hemodynamic Instability

???

Is it a Barrier to Positioning?

Hemodynamic Status

- No differences noted in hemodynamic variables between supine & positions
- Lateral turn results in a 3-9% decrease in SVO2 which takes 5-10 minutes to return to baseline
- Appears the act of turning has the greatest impact on any instability seen
- Minimize factors which contribute to imbalances in oxygen supply & demand

Patients at Risk for Intolerance to Positioning

- Elderly
- Diabetes with neuropathy
- Prolonged bedrest
- Low Hb and cardiovascular reserve
- Prolonged gravitational equilibrium

Vollman KM. Crit Care Nurs Q. 2013 Jan;36(1):17-27

Decision Making Tree for Patients Who Are Hemodynamically Unstable with Movement

Recommended Interventions for the Unstable Patient

1. If patient is deemed too unstable to turn by above parameters:
   - A trial turn should be attempted at least every 3 hours to determine ability to resume subsequent turning at least every 2 hours.
   - Provide skin care.
   - Elevate head of bed to at least 30 minutes.
   - Position patient’s head, arms, and legs at least every hour, consider passive ROM.
   - Consider use of Continuous Lateral Rotation Therapy to prevent development of gravitational equilibrium.
   - Begin HIGH and LOW alarms to gauge patient response.

2. If patient is stable:
   - Hemodynamically stable after completion of previous intervention, patient positioning safe to implement.
   - Move patient to prone position or equivalent.

3. If patient is unstable:
   - Patient unable to maintain vital signs within the limits delineated in the policy of the hospital.
   - Patient unable to maintain comfort.
   - Patient unable to maintain patient’s tolerance.

4. Decision tree for unstable patients:
   - Patient unable to maintain vital signs within the limits delineated in the policy of the hospital.
   - Patient unable to maintain comfort.
   - Patient unable to maintain patient’s tolerance.

5. If patient is unstable:
   - Patient unable to maintain vital signs within the limits delineated in the policy of the hospital.
   - Patient unable to maintain comfort.
   - Patient unable to maintain patient’s tolerance.

6. Decision tree for unstable patients:
   - Patient unable to maintain vital signs within the limits delineated in the policy of the hospital.
   - Patient unable to maintain comfort.
   - Patient unable to maintain patient’s tolerance.

Vollman KM. Crit Care Nurs Q. 2013 Jan;36(1):17-27
It is not enough to do your best, you have to know what to do and then do your best.

E. Deming
Drive Care: Implementing Best Practices with Ease

- 1st step: Collection of baseline data
- 2nd step: Evaluating resources
- 3rd step: Education on products and processes
- 4th step: Sustaining change in practice
- 5th step: Evaluate outcomes

Implementing Best Practices with Ease

1st Step: Collection of baseline data
- Direct observation of current status on Q2hr turning
- Nosocomial pressure ulcer rates (NDNQI)
- Incontinence associated dermatitis rates (IAD Form)
- Staff musculoskeletal injuries (Employee Health)
- Cost-analysis of patient and staff injuries

Implementing Best Practices with Ease

2nd Step: Evaluating resources to help staff achieve the right care, at the right time with the right pt

- Slide/Glide sheet that remains underneath the patient to reduce shear/friction & aid with turning
- Foam wedges to help sustain the turn
- Lifts and chair devices for out of bed mobility
- Best surface underneath the patient based on risk
- Large enough wick away pad to remove moisture
- Every thing breathes & appropriate layers of linen
- Tools inside the patients room (turn clock, musical cues)
- A protocol


Implementing Best Practices with Ease

3rd Step: Education on products and processes

- Education on the evidence based strategies
- Address in-bed & out of bed mobility barriers
- Education on any new products and how they will be used
- Re-education when necessary to ensure appropriate use
- Use of reference cards
- Build into orientation
Implementing Best Practices with Ease

4th Step: Sustaining change in practice
• Skin rounds/time frequency
• Hand-off communication
• Skin liaison/champion nurses
• Creative strategies to reinforce protocol use
  † Visual cues in the room or medical record
  † Rewards for increase compliance
• Yearly competencies on beds or positioning aids to ensure correct and maximum utilization

Implementing Best Practices with Ease

5th Step: Evaluate outcomes using comparison of data measurements pre and post implementation
• Direct observation measurement of turning
• Nosocomial pressure ulcer rates (NDNQI)
• Incontinence associated dermatitis rates (IAD Form)
• Staff musculoskeletal injuries (Employee Health)
• Cost-savings analysis of patient and staff injuries post change in practice (including any new product costs)
Can We Make a Difference?

- 78 hospitals in California
  - Submitted data to CALNOC
  - All inpatient units, plus observational
- Time period: 2003-2010
- Reported on 258,456 adult patients, 1970 prevalence studies, no in hospital days over time
- Standardized tool used with interrater reliability ensured
- Common interventions used:
  - Protocol development with evidence based practices
  - Staff education
  - Risk assessment tool
  - Monitoring & feedback


Can We Make a Difference?

- HAPU all stages ↓ from 10.4% to 1.8%*
- HAPU 2+ ↓ from 5.9% to 1.2%* (> in Medical vs. Surgical)
- HAPU 3+ ↓ from 2.0% to 0.4%*

*P < .0001

Be Courageous

We all are responsible for the safety of our patients & ourselves...Own the Issues

♦ “If not this, then what??”
♦ “If not now, then when?”
♦ “If not me, then who??”

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