The Heart of Rock and Roll: Pressure Ulcer Prevention and Care

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Objectives of Presentation: Ready to Rock and Roll?

Participants will:

• Describe National and International Perspectives on Pressure Ulcer Challenge
• Delineate Societal, Legal and Fiscal Imperatives for Pressure Ulcer Prevention
• Explain Barriers to Pressure Ulcer Prevention in Acute Care
• Describe the Current Science of Pressure Ulcer Prevention and Care
• Describe evidence-based approaches to pressure ulcer prevention and care
• Have some creative FUN (Rock On!!)
Why Can’t Pressure Ulcer Prevention Be Like Rock and Roll? WOW! It’s *Fun* to Give Good Care
Global vs. National
Global Perspectives on Pressure Ulcer Challenge

• **International** health burden

• PU incidence varies from 0 to 72.5% in health care settings across world (NPUAP/EPUAP/PPI, 2014)

• World Wide Pressure Ulcer (Injury) Prevention Day – November 17, 2016 (NPUAP, 2016)

• In **Med Market Diligence Worldwide Wound Management Forecast** (2013)
  – Most challenging will be chronic wounds
  – By 2017 across world pressure ulcers, venous and diabetic ulcers will increase to 60 million
Pressure Ulcers (Injuries) in the United States

- Correct terminology: Pressure Injury (NPUAP, April 2016)
- One of most common conditions in acute care
- Around 2.5 million pressure ulcers treated in acute care yearly (many more in long-term care)
- Incidence and prevalence varies by clinical care site (Berlowitz, 2014)
- High risk areas: ICUs, ORs, ERs, Intl Radiology areas
- Average rate in acute care is 10% (NPUAP, EPUAP, PPI, 2014)
- Prevalence in LTC is 4.1% to 32.2%
Pressure Ulcers in the United States

- NPUAP/EPUAP/PPI in 2014 Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline
- Incidence of pressure ulcers in general acute care – ranges from 2.8% to 9%
- Prevalence of pressure ulcers in general acute care – range from 11.9% to 15.8%
- Incidence, prevalence in critical care – 8 to 40%; 13.7 to 22%
- Incidence in operating room – 4-45%
- Incidence in LTC-1.9 to 5%
Pressure Ulcer Trends

- Trends discernible in acute/critical care: some downward decline in PU prevalence
- More partial thickness PU; More pickup of DTI
- Still considerable amount **not** documented on admission
- PU development in hospital can increase LOS FIVEFOLD
- PUs now costing around $11 billion dollars annually in USA (NPUAP/EPUAP/PPI, 2014)
Evidence Based Practice that drives clinical care and improves patient outcomes

No valid scientific evidence on which to justify practice
Critical Messages

• As A Nation, We Cannot Afford To Waste Money With Ineffective Interventions

• Evidence-Based Practice Is Our New Dance Tune
• A 62-year-old morbidly obese patient is admitted to the critical care unit with intact skin. After being intubated for two days and sedated, she wakes up and complains of pain on her tailbone. The ICU nurse assesses her quickly and assures her all is fine. The patient tells her family. They ask for an assessment by the WOC nurse who finds a superficial Stage III. Since the skin was previously intact it is HAPU. What should have happened? What happens NOW??
There’s Pressure Ulcers
And Then There Are PRESSURE ULCERS
And Then There Are REALLY PRESSURE ULCERS
“I’m All Shook Up!!” The Imperative of Pressure Ulcer (Injury) Prevention

- AHCPR 1992, 1995 pressure ulcer prevention and treatment federal government told us to quit bad wound care
- October 2008 CMS – No reimbursement for HAPUs Stage III and IV
- Pressure ulcers are expensive, increase mortality and morbidity and play role in spread of infections
- Cuts in reimbursement for poor quality care for hospitals – The Future is Now!
- The Joint Commission – Prevention of pressure ulcers is a National Patient Safety Goal across care settings
- Prevention vs. complexity – sick patients (sickest in history of world)
Litigious Nightmare

- Pressure ulcer occurrence is viewed as an indicator of quality (or LACK of same)
- Pressure ulcer litigation is a source of income for attorneys
- Pressure ulcer now called Pressure injury (NPUAP, 2016)
Pressure Ulcers and the Age of “Never Events” and “HACs”

- Deficit Reduction Act of 2005 CMS began in October 2008 to withhold higher DRG payments for hospital-acquired pressure ulcers
- Assessing POA has great urgency
- Avoiding alphabet soup trouble of VAP, UTI, SSI, and BSI
- Past time for the new rock anthem: NO OUTCOME, NO INCOME!!
## Risk Factors for Pressure Ulcer Occurrence: What the Science Says

<table>
<thead>
<tr>
<th>Intrinsic</th>
<th>Extrinsic</th>
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<tr>
<td>Advanced Age</td>
<td><strong>Pressure</strong></td>
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<td><strong>Immobility</strong></td>
<td><strong>Shear</strong></td>
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<td><strong>Poor Protein Intake/Nutrition</strong></td>
<td><strong>Friction</strong></td>
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<td>Anemia</td>
<td><strong>Heat</strong></td>
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<td>Generalized Edema</td>
<td><strong>Moisture</strong> (e.g., sweat, urine, feces, wound drainage)</td>
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<td>Co-Morbid Conditions</td>
<td>Recent surgery especially &gt; 3 hours</td>
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<td><strong>Altered Mentation</strong></td>
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<td>Fever</td>
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<td>New Onset Infection</td>
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<td>Smoking</td>
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<td>History of Pressure Ulcers</td>
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Pressure Ulcer Prevention Dance Steps

• **Staff Education** (all disciplines)
  
  • **Acknowledge the risk**
  – Risk assessment – validated reliable scale
  – Skin assessment

• **Assess nutritional status**
  – Intervene if necessary

• **Maintain skin integrity**
  – Repositioning
  – Manage incontinence and moisture

• **Reduce pressure effects**
  – Support surfaces for pressure redistribution
OTHER FACTORS (It’s Got a Good Beat, Easy to Dance To)

• Clinical monitoring
• Feedback
• Skin care champions
• Sustainability efforts (NOT one and done)
What the Science Says About Prevention

• Grouped modifiable risk factors work (Bundling or Algorithms) (Garcia-Fernandez et al, 2014)

• Pressure ulcers are a combination of magnitude (force) and duration – have to address **BOTH** components for clinical effectiveness

• Support surfaces (Pressure Redistribution) are better than standard hospital mattresses for prevention and treatment of pressure ulcers

• Repositioning the immobilized patient helps **prevent** pressure ulcers (no evidence for pressure ulcer healing) (Moore & Cowman, 2012)

• Research suggests that turning and repositioning frequency **must** be individualized based on support surface in use and patient condition (Sprigle and Sonenblum, 2011) (Interesting thought about reperfusion injury)
Put On Your Blue Suede Shoes
The Science of Prevention
What We Do Know!!

• Full lateral positioning is discouraged increases pressure over trochanter (Krapfl et al, 2008 – usually suggest 30 degree side lying)

• HOB not at 90° level (increases sacral pressure) (Krapfl et al, 2008)

• Heel offloading is recommended (WOCN, AAWC) – not bunny boots or heel/elbow protectors
What the Science *Doesn’t* Tell Us

- Which etiologic factors are most critical?
- Are specific **combinations** of factors most critical?
- What factors are **protective**?
- Which pressure redistribution surfaces are **best**?
- How frequently should patients be repositioned? *(No science, lots of folklore to turn q2H)*
- “The exact science of timing and mechanism for repositioning is unknown.” JBI. p. 31
“Ain’t That a Shame”: Barriers to Pressure Ulcer Prevention

• Recent study in large teaching hospital (Mwebaza et al, 2014) demonstrated typical barriers to pressure ulcer prevention in nurses
  – Had poor understanding of pressure ulcers etiology and staging
  – Pressure ulcer interventions were unreliable and uncoordinated
  – Had poor access to current literature
  – Shortage of staff and time
  – Inconsistent or no access to prevention devices

And the descriptive cross-sectional design was conducted in Uganda!

Cox et al (2013) studied critical care physicians knowledge or pressure ulcers and found poor to fair knowledge – so not just nurses
One Approach
Pressure Ulcer Prevention Algorithm for Adults

Admission Assessment and Documentation (usually within 24 hours)
1. Assess Pressure Ulcer (PU) risk using valid and reliable instrument (e.g., Braden scale)
2. Complete skin assessment

Provide staff, caregiver, and patient education related to assessment, documentation and interventions.

Not at risk and intact skin
• Current or recent history of limited mobility?

NO
• Include in at-risk protocol

YES

At risk for, or actual alteration in skin integrity

PU Risk Assessment and Documentation
• Activity/mobility limitations
• High risk for friction/shear
• Skin exposure to moisture
Less than optimal nutritional status*
*Prior to PU risk scale sub score and/or valid nutritional assessment tool

Alteration in skin integrity Assessment/Documentation

Interventions/Documentation - If consistent with overall goals of patient care:
• Use high quality foam or other support surface bed and chair*
• Implement regular repositioning schedule
• Use transfer device(s)
• Elevate heels (pillows/devices)
• Maintain head of bed at < 30° angle
• Moisturize skin as needed
• Apply protective skin barrier cream or dressing
• Minimize skin contact with urine/feces (incontinence management)
• Use pH-balanced skin cleansers
• Apply protective skin barrier product or dressing
• Provide high protein nutritional supplement* and/or correct nutritional deficiencies
• Differential diagnosis (e.g., Incontinence Associated Dermatitis, Pressure Ulcer)
• Implement appropriate wound care protocol (e.g., Solutions wound care algorithm)

Repeat PU risk and skin assessment as per setting protocol.
Support Surface Selection Algorithm

- Published in January 2015 issue of *Journal of WOCN*
- Authored by McNichol, Watts, Mackey, Beitz, and Gray
- **First** content validated support surface selection algorithm
- All levels of decision making have evidence level identified
WOCN Mobile App

* [www.algorithm.wocn.org](http://www.algorithm.wocn.org)
Structure Process Outcome
(Avedis Donabedian)

**Structure** – for most patients we know how to prevent pressure ulcers

**Process** – This is problem area work of Jankowski et al (JCAHO – Hill – Rom Scholar)

**Outcomes** – Prevention of Pressure Ulcers
Nightingale and Pressure Ulcers

- In 1860, Florence Nightingale wrote, 
  “If he has a bedsore, it is generally the fault not of the disease but of the nursing.”

_Footnotes_:
_Notes on Nursing (1860) p. 8_
“Rock Around The Clock”: Process Issues

- LIKELY REAL CULPRIT
- Limitations in Staff Education and Training
- Non standardized approaches
- Provider non-involvement
- Limited Involvement of Unlicensed personnel
- Not established system-wide approaches
- Materials for PUP not easily available
- Lack of plan for communicating At-Risk status
PUP Research on Process Issues

- **Standardize**, standardize, standardize
- Make it **easy** to do good care
- **Streamline** products, interventions, forms, processes
- Make attractive **visuals**
- Use **technology**: reminders, alerts, algorithms,
- **Educate** ALL STAFF about high risk
- Create a **feedback** loop for QI
Specific Implications: Acute/Critical Care
Specific Implications for Acute/Critical Care

Consensus Panel at Virginia Commonwealth University (VCU) (Brindle et al, 2013)

- Clinicians fear to move due to “hemodynamic instability” (not well defined in literature)
- Real danger to ICU patients is the effect of not turning or not mobilizing patients (Brindle et al, 2013)
- It is possible to turn & reposition virtually all critical care patients – go slow, get help, monitor responses, individualize care
- “In general, all ICU patients should be turned until they give you a reason not to. No one should assume the patient is too unstable: You must first allow the patient to fail (Brindle et al, 2013, p. 259)
- Patients left in stationary position too long develop problems with “gravitational equilibrium” – May make position change difficult (Vollman, 2010)
Jumping to incorrect conclusions does not lead to good clinical decisions.
Emerging Therapies for PUP: Things to Watch

- Microclimate control (usually with special beds)
- Prophylactic dressings (foam dressings over bony prominences)
- Fabrics and textiles (silk-based fabrics)
- Electrical stimulation of muscles (NPUAP/EPUAP/PPI, 2014)
Summary (Or Are You Ready to Rock and Roll?)

• Pressure ulcer prevention is a critical focus for any hospital or health care facility hoping to stay healthy financially

• Most (not all) pressure ulcers are avoidable –

• If do happen, should be partial thickness

• Fatalism not allowed

• Pressure ulcers are patient problem therefore they are the problem of all health disciplines (NOT a nursing problem)

• Look at structure-process-outcome factors focusing on process phase
Thank You For Rockin On For Pressure Ulcer Prevention and Care
Great Time To Practice in Health Care
Pressure Ulcer/ Wound Care Activity

• “Fractured Fairy Tales”
  – Way to celebrate our creative approaches to pressure ulcer (injury) prevention and wound care
  – HAVE FUN
Fractured Fairy Tales (FFTs)

• On wonderful show – Rocky and Bullwinkle
• Alternated with Sherman and Mr. Peabody on “Way Back Machine”
• Chance to combine elements of a fairy tale (or other well known tale fable or myth) with humor to create learning
FFTs-Set the Stage

- Take a fairy tale, “Fracture It” to create laughter
- Think-pair-share: Favorite fairy tales? Favorite characters in fairy tales?
- Think about pressure ulcers and wound care
- Connect the two to make for humor and learning (to make a point)
- Nothing offensive or obscene
Sample Fractured Fairy Tales

- The Wolf Who Cried Boy
- The Wolf’s Side – The Real Story of the Three Little Pigs
- Red Hot Riding Hood
- Sleeping Ugly
- Squids Will Be Squids
**My Fractured Fairy Tale**

- *Little Miss Muffet*
- Little Miss Muffet sat on her tuffet eating her curds and whey. She sat still for so long, decubitus formed, and they had to cart her away.
A CMS Fairytale

• Once upon a time there was a hospital system that was denied federal reimbursement for hospital acquired pressure ulcers. The denial was so substantial on multiple patients and so prolonged, the hospital system now faced looming bankruptcy and had already laid off care staff. The CEO had left and the VP for Nursing was “looking”: What should the nurse wound specialist of this system (who had warned, cajoled, and begged others to listen) now do?
The Wound Specialist Should:

• Jump off the hospital roof with a LONG bungee cord and land in the ER driveway
• Dress up as a cheerleader running around saying, “Give me a P, give me an R, Give me an E and two SS…”
• Arrange to visit a relative in the Bahamas and plan to open a bookstore
• Buy some John Daniels, learn how to tango and say, “HOOOAHHH” when a patient develops a HAPU
• Run up and down the cafeteria aisles saying “I told you so, I told you so”
• All (or none) of the above
What “Fractured” Creation Can **YOU** Generate?

- Poems
- Book Titles
- Movie Titles
- Goofy signs
- Other whimsical creations
Sample Goofiness

• **Wacky Movie Titles**
  – Honey I Shrunk The Wound
  – Pirates of the Perineum
  – Saving Ryan’s Privates

• **Goofy Book Titles**
  – Aging Ankles, Empty Mind: Confessions of an OR Nurse
  – Protect Your ASSets: OR Nursing and Litigation
  – The Yellow River by I.P. Freely
Your Challenge

- Generate a loopy creation of your choice
- You may work alone or in groups
- You have five minutes
Pressure Ulcer Prevention: NOT AS HARD AS THE LIMBO
Summary: Pressure Ulcer Prevention and Care

• The Good Fairy of Nursing Thanks You for Rocking Along and Improving Care for Our Patients
References


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