Frequently Asked Questions about Pressure Injury Staging

February 20, 2018, 1 to 2 pm ET

Scott Bolhack, MD, MBA, CMD, CWSP, FACP, FAAP
Janet Cuddigan, PhD, RN, CWCN, FAAN
Joyce A. Pittman, PhD, ANP-BC, FNP-BC, CWOCN

NPUAP Mission

The National Pressure Ulcer Advisory Panel (NPUAP) is the nation’s leading scientific expert on pressure injury prevention and treatment. Our goal is to insure improved patient health, and to advance public policy, education and research.

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Reduced Price for the International Guideline!

NPUAP in collaboration with the European Pressure Ulcer Advisory Panel (EPUAP) and the Pan Pacific Pressure Injury Alliance (PPPIA) has worked to develop a pressure injury prevention and treatment the Clinical Practice Guideline and Quick Reference Guide. The price of these books have recently been reduced.

Purchase your copy today at www.npuap.org

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NEW E-Versions of the International Guideline!

The Clinical Practice Guideline and various chapters within the Guideline are now available as downloadable publications! Some of the chapters include bariatric individuals, critically ill patients and more!

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NPUAP Monograph

Released in November 2012, the 254-page, 24 chapter monograph, *Pressure Ulcers: Prevalence, Incidence and Implications for the Future* was authored by 27 experts from NPUAP and invited authorities and edited by NPUAP Alumna Dr. Barbara Pieper.

The monograph focuses on pressure ulcer rates from all clinical settings and populations; rates in special populations; a review of pressure ulcer prevention programs; and a discussion of the state of pressure ulcers in America over the last decade.

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- E-version $49
- Individual Chapters $19

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- Pressure Injury Definition and Stages
- Prevention of Pressure Injury
- Treatment of Pressure Injury

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Faculty Disclosures

- Scott Bolhack, MD, MBA, CMD, CWSP, FACP, FAAP
- Janet Cuddigan, PhD, RN, CWCN, FAAN
- Joyce A. Pittman, PhD, ANP-BC, FNP-BC, CWOCN

The webinar faculty have listed no financial interest/arrangements that would be considered a conflict of interest.

Planning Committee Disclosures

- Janet Cuddigan, PhD, RN, CWCN, FAAN
- Colin Dworak
- Mary Litchford, PhD, RD, LDN
- Joyce A. Pittman, PhD, ANP-BC, FNP-BC, CWOCN
- Tracey L. Yap PhD, RN, WCC, CNE, FAAN

The planning committee members have listed no financial interest/arrangements that would be considered a conflict of interest.
Objectives

• Describe the 2016 NPUAP Pressure Injury Staging System.
• Discuss answers to frequently asked questions about differentiating among pressure injury stages.
• Discuss clinical principles and strategies for differentiating pressure injuries from other types of wound.

Brief Overview of 2016 NPUAP Pressure Injury Staging System

Janet Cuddigan, PhD, RN, CWCN, FAAN
Pressure Injury Definition

A pressure injury is localized damage to the skin and underlying soft tissue usually over a bony prominence or related to a medical or other device.

The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as a result of intense pressure, prolonged pressure or pressure in combination with shear.

The tolerance of soft tissue for pressure and shear may also be affected by microclimate, nutrition, perfusion, co-morbidities and condition of the soft tissue.

Stage 1 Pressure Injury: Non-blanchable erythema of intact skin

Intact skin with a localized area of non-blanchable erythema, which may appear differently in darkly pigmented skin. Presence of blanchable erythema or changes in sensation, temperature, or firmness may precede visual changes. Color changes do not include purple or maroon discoloration; these may indicate deep tissue pressure injury.
Blanchable vs. Non-Blanchable

Stage 2 Pressure Injury:
Partial-thickness skin loss with exposed dermis

Partial-thickness skin loss with exposed dermis. The wound bed is viable, pink or red, moist, and may also present as an intact or ruptured serum-filled blister. Adipose (fat) is not visible and deeper tissues are not visible. Granulation tissue, slough and eschar are not present. These injuries commonly result from adverse microclimate and shear in the skin over the pelvis and shear in the heel.

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Stage 3 Pressure Injury: Full-thickness skin loss

Full-thickness loss of skin, in which adipose (fat) is visible in the ulcer and granulation tissue and epibole (rolled wound edges) are often present. Slough and/or eschar may be visible. The depth of tissue damage varies by anatomical location; areas of significant adiposity can develop deep wounds. Undermining and tunneling may occur. Fascia, muscle, tendon, ligament, cartilage or bone is not exposed. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

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Stage 3 Pressure Injury with Epibole

- Epibole (ee-PIB-oh-lee)
- Rolled edge
  - Due to lack of tissue in the wound bed to support the epidermal cells to cross the wound bed
  - Needs to be removed

Area of Focus

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Frequently Asked Questions about Pressure Injury Staging

Stage 4 Pressure Injury: Full-thickness loss of skin and tissue

Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone in the ulcer. Slough and/or eschar may be visible. Epibole (rolled edges), undermining and/or tunneling often occur. Depth varies by anatomical location. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

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Unstageable Pressure Injury: Obscured full-thickness skin and tissue loss

Full-thickness skin and tissue loss in which the extent of tissue damage within the ulcer cannot be confirmed because it is obscured by slough or eschar. If slough or eschar is removed, a Stage 3 or Stage 4 pressure injury will be revealed. Stable eschar (i.e. dry, adherent, intact without erythema or fluctuance) on an ischemic limb or the heel(s) should not be softened or removed.

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Deep Tissue Pressure Injury: Persistent non-blanchable deep red, maroon or purple discoloration

Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration or epidermal separation revealing a dark wound bed or blood filled blister. Pain and temperature change often precede skin color changes. Discoloration may appear differently in darkly pigmented skin. This injury results from intense and/or prolonged pressure and shear forces at the bone-muscle interface.

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Deep Tissue Pressure Injury - continued

The wound may evolve rapidly to reveal the actual extent of tissue injury, or may resolve without tissue loss. If necrotic tissue, subcutaneous tissue, granulation tissue, fascia, muscle or other underlying structures are visible, this indicates a full thickness pressure injury (Unstageable, Stage 3 or Stage 4). Do not use DTPI to describe vascular, traumatic, neuropathic, or dermatologic conditions.
Evolution of Deep Tissue Pressure Injury

Day 1 - DTPI
- Day 1 - Classify intact, discolored skin this pressure as a Deep Tissue Pressure Injury

Day 3 - DTPI
- Day 3 - Classify discolored skin with epidermal blistering as a Deep Tissue Pressure Injury

Day 10 - Unstageable
- Day 10 - If the Deep Tissue Pressure Injury becomes necrotic, classify it as an Unstageable Pressure Injury

NPUAP Pressure Injury Stages

Additional Considerations:
- Describes anatomic depth that is visible or palpable.
- Deeper damage possible
- Does not progress 1-4
- Does not heal 4-1. Do NOT Downstage.
- Note if caused by a medical device
- Pressure injuries on mucous membranes should not be staged.
- Injury does not imply fault.

Numerically stage if depth visible/palpable:
- Stage 1
- Stage 2
- Stage 3
- Stage 4

Depth not visible:
- Unstageable
- Deep Tissue Pressure Injury (DTPI)

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**Medical Device Related Pressure Injuries (MDR PI)**

Medical device related pressure injuries result from the use of devices designed and applied for diagnostic or therapeutic purposes. The resultant pressure injury generally conforms to the pattern or shape of the device. The injury should be staged using the staging system.

**This describes an etiology. It is not a stage.**
- Use the staging system to stage.
- Then note whether the injury is known to be related to a medical device.
- When assessing medical device related pressure injuries, remove only those devices that can be safely removed.
- Prevention requires unique strategies.
Frequently Asked Questions about Pressure Injury Staging

Differentiating among Pressure Injury Stages

Janet Cuddigan, PhD, RN, CWCN, FAAN
Frequently Asked Questions about Pressure Injury Staging

NPUAP Inquiry Form

Purposes:

• Identify common concerns
• Collaborate to address common concerns
• Share expertise
• Clarify evidence based guidelines

Limitations in Scope:

• Not provide medical advice on individual cases
• Not consult on legal cases
• Not recommend products, services or companies
• Regulatory questions should be referred to appropriate regulatory agency

http://www.npuap.org/inquiry-form/

NPUAP Inquiries

• NPUAP has processed 130 queries and responses since April 2016.
• Themes analyzed and referred to Board of Directors.
• Developing FAQs for the Website.
### Frequently Asked Questions about Pressure Injury Staging

**Pressure/Shear at Injury Site?**

- **YES**
  - Deepest tissue type visible or palpable?
    - **YES**
      - *Stage 1* or *Stage 2* or *Stage 3* or *Stage 4*
    - *Unstageable*
      - (observed by slough or eschar)
      - *Deep Tissue Pressure Injury*
    - *Non-Visible*
      - (under non-removable dressing or device — NDNQI / CMS only)

- **NO**
  - (or other causes also exist)
  - *Wounds & skin injuries due to:*
    - **Disease:**
      - Arterial ulcers
      - Venous ulcers
      - Diabetic Foot ulcers
    - **Moisture:**
      - MASD
      - IAD
      - Intertriginous dermatitis
    - **Trauma:**
      - Skin tears
      - MARSI
      - Burns
      - Abrasions
      - Bruises
    - **... and many other causes.**

*See NPUAP staging definitions.*

---

**1. Do I have to “count” it? That depends.....**

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<thead>
<tr>
<th>NPUAP</th>
<th>NDNQI</th>
<th>CMS</th>
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<tbody>
<tr>
<td>Stage 1</td>
<td>Stage 1</td>
<td>Stage 1 – M0300A</td>
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<tr>
<td>Stage 2</td>
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<td>Stage 2 – M0300B</td>
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<td>Stage 3 – M0300C</td>
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<td>Stage 4</td>
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<td>Stage 4 – M0300D</td>
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<tr>
<td>DTPI</td>
<td>DTPI</td>
<td>Unstageable presenting as deep tissue injury – M0300G</td>
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<td><em>Unstageable</em></td>
<td>Unstageable due to slough and/or eschar M0300F</td>
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<tr>
<td>---</td>
<td>Non visible</td>
<td>Unstageable due to non-removable dressing/device M0300E</td>
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</tbody>
</table>

*Medical device related is an etiology, not a stage.*

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1. Do I have to “count” it? That depends….

<table>
<thead>
<tr>
<th>NPUAP</th>
<th>ICD-10</th>
<th>ICD-11</th>
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<tbody>
<tr>
<td>Stage 1</td>
<td>L89.001</td>
<td>EJ30.0</td>
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<tr>
<td>Stage 2</td>
<td>L89.002</td>
<td>EJ30.1</td>
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<tr>
<td>Stage 3</td>
<td>L89.003</td>
<td>EJ30.2</td>
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<tr>
<td>Stage 4</td>
<td>L89.004</td>
<td>EJ30.3</td>
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<tr>
<td>DTPI</td>
<td>----</td>
<td>EJ30.4 - suspected deep pressure induced tissue damage, depth unknown</td>
</tr>
<tr>
<td>*Unstageable</td>
<td>L89.000</td>
<td>EJ30.5 - pressure ulceration ungradable</td>
</tr>
<tr>
<td>MMPI</td>
<td>---</td>
<td>Different category</td>
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<tr>
<td>---</td>
<td>L89.009</td>
<td>EJ30.Z pressure ulceration of unspecified grade</td>
</tr>
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</tr>
</tbody>
</table>

*Unstageable – slough-eschar obscures base. ICD 10 codes given for elbow (.00)
ICD-11 accepts “pressure injury” as a synonym for pressure ulceration, pressure ulcer and decubitus ulcer

2. How can I accurately assess pressure injuries in dark-skinned individuals?

- Tangential lightening
- Avoid bright, direct light
- Moistening skin may help
- Palpate bony prominences and surrounding tissue for differences in:
  - Temperature
  - Tissue consistency (firm, boggy)
  - Pain with palpation
- New Technologies: (e.g. thermography, ultrasound, SEM, bio-impedance)
Frequently Asked Questions about Pressure Injury Staging

True Extent of Injury Revealed after Debridement

What were the clues on initial assessment?

3. How Should I Stage “DTPI in evolution”?

- **Day 1** - Classify intact, discolored skin this pressure as a Deep Tissue Pressure Injury
- **Day 3** - Classify discolored skin with epidermal blistering as a Deep Tissue Pressure Injury
- **Day 10** - If the Deep Tissue Pressure Injury becomes necrotic, classify it as an Unstageable Pressure Injury

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5. How would you stage this pressure injury?

If stage of healing is:
1. A closed pressure injury is one that has completely epithelialized.
2. A healed pressure injury exhibits fully restored epidermal integrity and stability.
3. A mature resolved pressure injury is one that has transitioned through the remodeling phase of healing.

Then new injury is:
1. A reopened pressure injury is one where the epithelium reopens before the wound has fully matured.
2. A healed pressure injury that reopens before reaching the mature resolved pressure injury status should be considered a recurrent pressure injury.
3. The breakdown of previously unwounded tissue or breakdown at the site of a mature resolved pressure injury would be considered a new pressure injury.

Future Challenges in Staging

- Refining definition of unavoidable PI.
- Clarifying POA, especially in relation to DTPI.
- Differentiating reopened, recurrent and new PI.
- Harmonizing terminology (LOINC & SNOMED) and coding (ICD 10 and 11) with new evidence based definitions.
- NQF 0678: New or worsened pressure injuries.
- How will new technologies affect our ability to detect early pressure-related tissue changes?
- How will new technologies change a staging system that is currently based on what we can see and feel?

Differentiating Pressure Injuries from Other Types of Wounds

Scott Matthew Bolhack, MD, MBA, CMD, CWSP, FAAP, FACP
Frequently Asked Questions about Pressure Injury Staging

Scott Bolhack, MD, MBA, CMD, CWSP, FACP, FAAP
February 20, 2018 NPUAP Webinar
Frequently Asked Questions about Pressure Injury Staging

Wound Descriptions

• Time
  – Acute vs. Chronic

• Size

• Depth
  – Partial vs. Full Thickness

• Etiology
  – Pressure, Diabetic Neuropathic, Arterial, Venous, Skin Tears, Lymphatic, Surgical, Traumatic, Radiation, Malignant, Thermal, Vasculitis, Thrombotic, Calciphylaxis

Wound Categories

• Pressure Injuries
  – Staging and Etiology (Mechanical Device and Mucosal)

• Diabetic Neuropathic Ulcerations
  – Wagner Classification
  – University of Texas Diabetic Wound Classification

• Venous Stasis Ulcerations
  – CEAP Classification (clinical, etiology, anatomy, and pathophysiology)

• Skin Tears
  – Payne-Martin Classification System
Determining an Etiology

• History and Examination of the Patient
• An isolated picture of a wound --without a measuring tape, location identification, history, pertinent history, comorbidities -- is an isolated picture of a wound!

The Wounds In-between

• Mixed Arterial and Venous of the lower extremities
• The surgical wound of the ankle that opens up underneath a cast due to device pressure and venous insufficiency
• The pressure injury/ulcer of the heel that will heal as if it were a diabetic ulcer in a patient with that affliction
• Reopened pressure injury in the sacrum in an area of a scar
Location, Disease, History

- Sacral Wound
  - Thinking pressure or moisture
- Plantar Foot Wound
  - Thinking diabetic neuropathic or ischemic ulcer
- Distal Toe Wound
  - Thinking arterial disease or pressure

Frequently Asked Questions

- Statistic Questions
- Definition Clarifications related to Data Bases
- Product Questions
- Who is allowed to do what and where
- Comorbidity Questions
Differential Diagnosis Case Studies

The photographs in the webinar presentation have been removed to ensure the privacy of the patients

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