Minnesota Hospital Association

Pressure Injuries Module 3

- Pressure injury definition
- Pressure injury staging
- Documentation

Intended Audience: Nurses, Providers

Approximate Time: Presentation and Post Test 20 Minutes

Learning Objectives

After completing this learning session, the participant will be able to

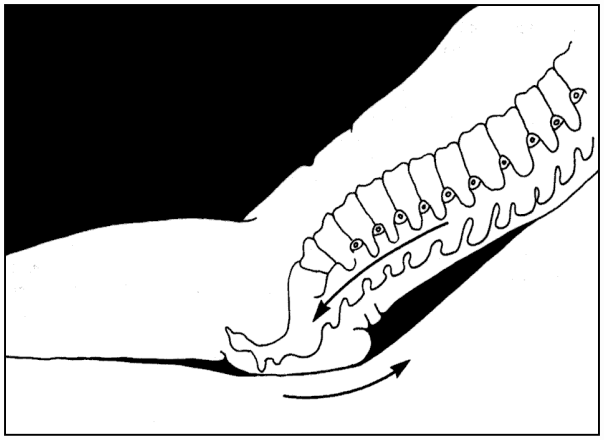
- Describe pressure injury stages
- List pressure injury documentation components to facilitate appropriate

Pressure Injury Definition [1]

- Injury to the skin usually over a bony prominence or related to a medical device as a result of:
  - prolonged pressure
  - intense pressure of a short duration
  - pressure in combination with shear
- Tissue tolerance for pressure and shear may be affected by a number of conditions including:
  - moisture, incontinence, humidity
  - impaired nutrition (recent or chronic)
  - impaired perfusion (blood flow)

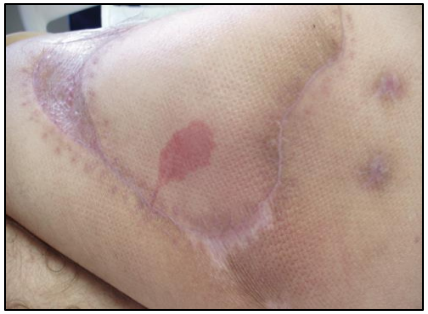
Shear (2)

- When combined with pressure results in pressure injury
- The skin stays in one place while the body slides in the opposite direction.
- Blood vessels stretch and angulate, blood flow is disrupted leading to tissue deformation or death
- Classic example: head of bed elevation > than 30 degrees

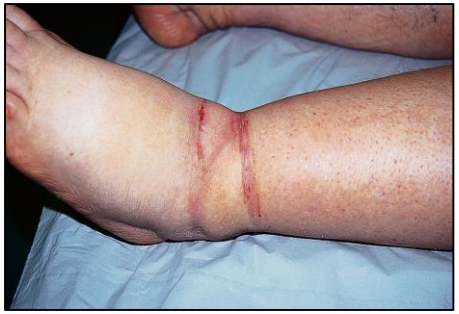


Graphic credit: Bryant Bryant, R. Nix, D. Coeditors: Acute and Chronic Wounds: Current Management Concepts, 5th Edition. St. Louis, Mosby/Elsevier January 2016.

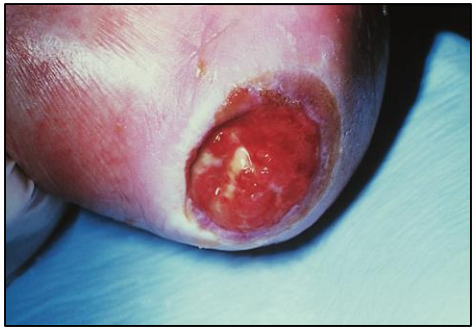
Examples of Pressure Injuries



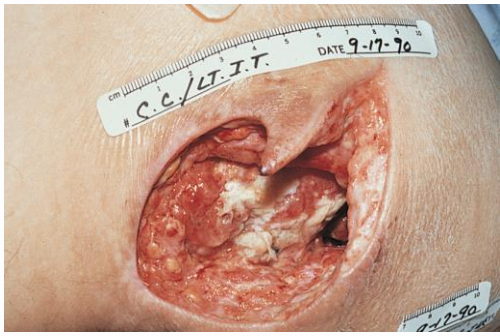
Stage 1
Pressure Injury



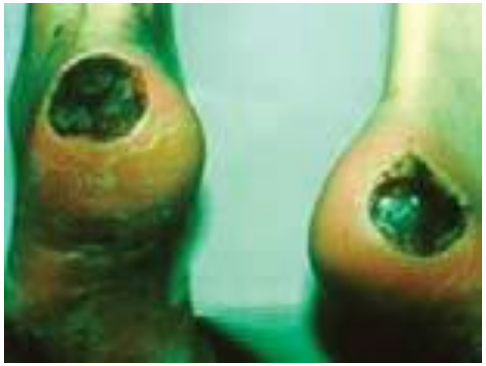
Stage 2
Pressure Injury



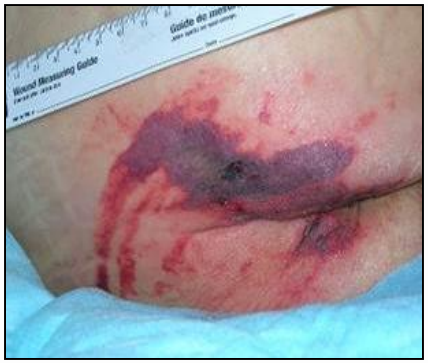
Stage 3
Pressure Injury



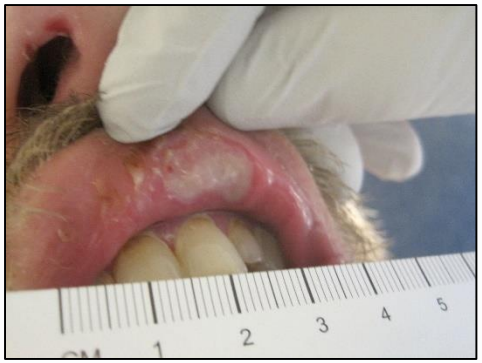
Stage 4
Pressure Injury



Unstageable
Pressure Injury



Deep tissue Pressure
Injury (DTPI)



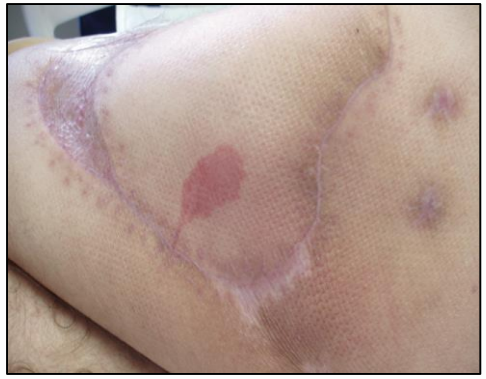
Mucosal Membrane
Pressure Injury

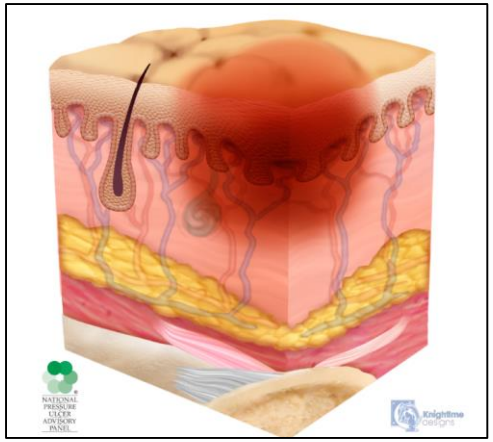
Photo credit: Bryant Bryant, R. Nix, D. Coeditors: Acute and Chronic Wounds: Current Management Concepts, 5th Edition. St. Louis, Mosby/Elsevier January 2016

Stage 1
Pressure Injuries

Localized area of intact skin with <u>non-blanchable</u> erythema [(1)]

- Dark skin may not visibly blanch; color may differ from surrounding area.
- Change in sensation, temperature, or firmness may precede visual changes
- Color changes <u>do not</u> include purple or maroon





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Graphics from: National Pressure Ulcer Advisory Panel. (2016). Retrieved from: http://www.npuap.org/resources/educational-and-clinical-resources/pressure-injury-staging-illustrations/

Blanchable vs Nonblanchable (2)

Pressure related blanchable (transient) erythema

- Turns white (blanches) when compressed with a finger
- Promptly returns to red when pressure is removed
- If pressure related, usually resolves with offloading

Pressure related nonblanchable (stage 1) erythema

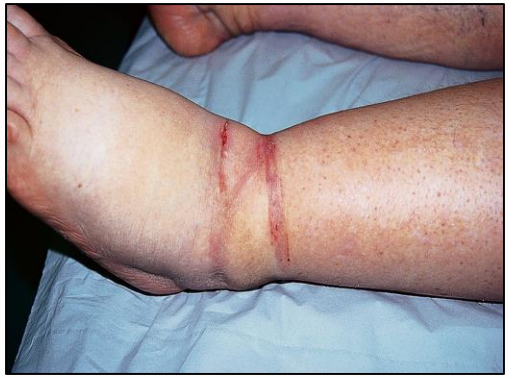
- Stays red when compressed with a finger
- If pressure related, classified as Stage 1 pressure injury

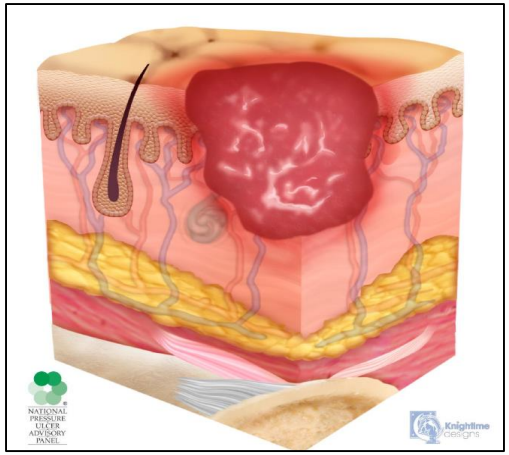
Stage 2 Pressure Injuries

Partial-thickness skin loss with exposed dermis (1)

- Dermis is the shallow 2nd layer of skin
- Shallow <u>open</u> pink, red, moist

  OR
- Intact or ruptured serum filled blister
- Granulation tissue, slough and eschar are not present





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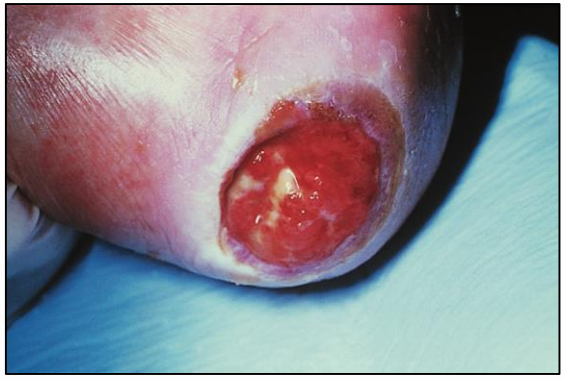
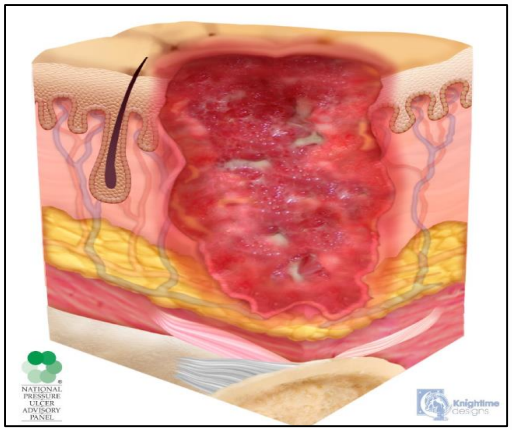
Stage 3 Pressure Injury

Full-thickness skin loss with adipose (fat) visible in the wound [1]



- Shallow or deep depending on amount of adipose at the site
- Fascia, muscle, tendon, ligament, cartilage and/or bone not exposed
- Granulation tissue and epibole (rolled edges) are often present
- Undermining and/or tunneling may be present
- If slough or eschar obscures extent of tissue loss, it is an unstageable pressure Injury



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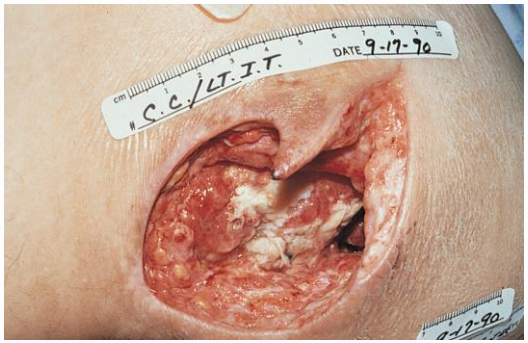
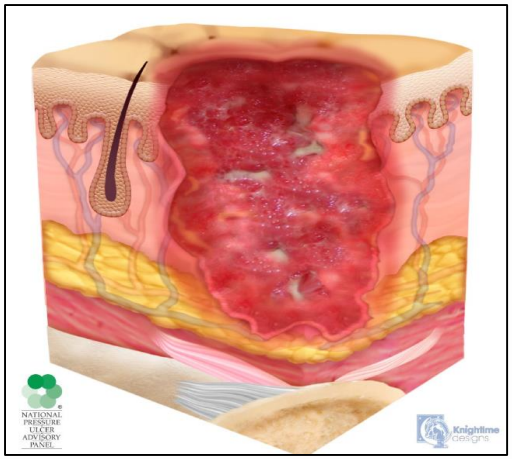
Stage 4 Pressure Injury

Full-thickness skin loss involving fascia, muscle, tendon, ligament, cartilage or bone exposed or directly palpable [(1)]



- May be shallow or deep depending on amount of adipose at the site
- Epibole (rolled edges), undermining and/or tunneling often occur
- If slough or eschar obscures the extent of tissue loss it is an unstageable pressure injury



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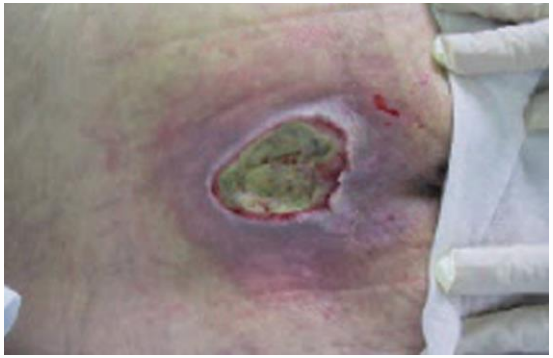
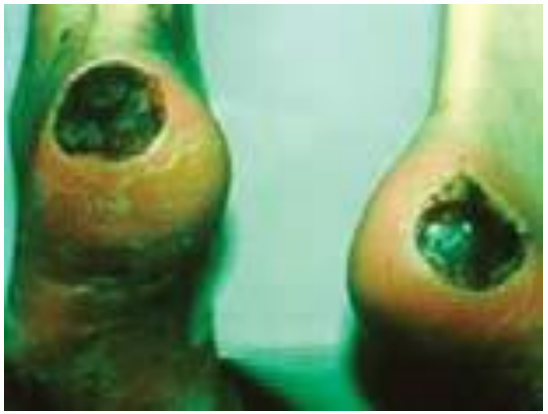
Unstageable Pressure Injury

Obscured full-thickness skin and tissue loss [(1)]

- Staging 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





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Unstageable Pressure Injury TIP

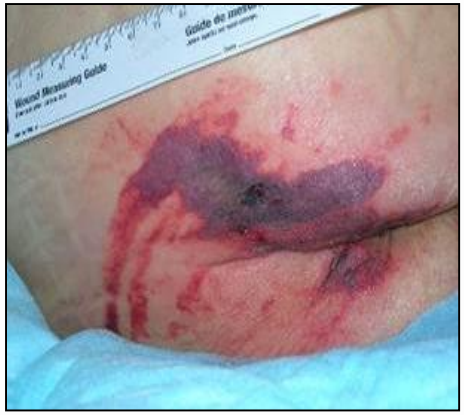
The National Pressure Ulcer Advisory Panel (NPUAP) pressure injury category "Unstageable" should NOT be used to describe:

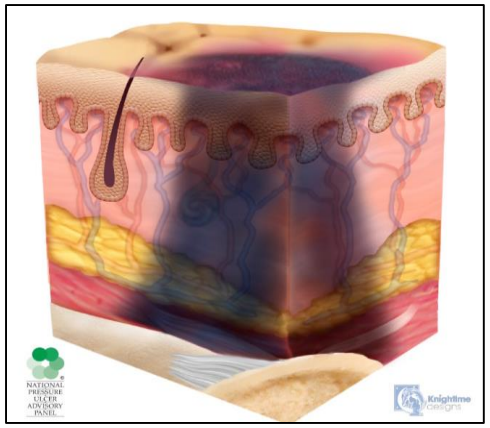
- pressure injuries that were not assessed
- Pressure injuries that can not be assessed
- pressure injuries not located on the skin
- wounds that are not pressure injuries

Deep Tissue Pressure Injury

Deep tissue pressure injury (DTPI) [1]

- Intact non-blanchable deep red, maroon, purple tissue or
- Blood filled blister (intact or ruptured)
- May look different on dark skin
- Change in sensation, temperature, or firmness may precede visual changes





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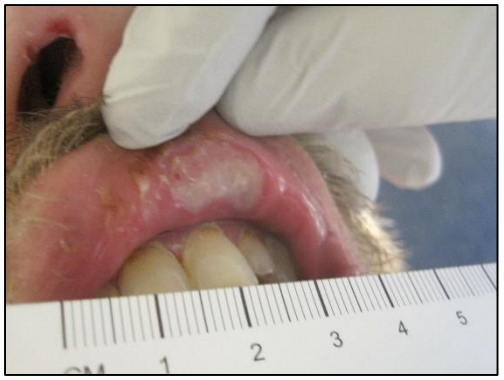
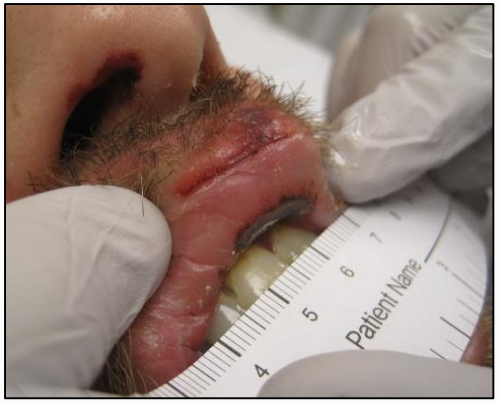
Mucous Membrane Pressure Injury

Mucous membrane PI [(1)]

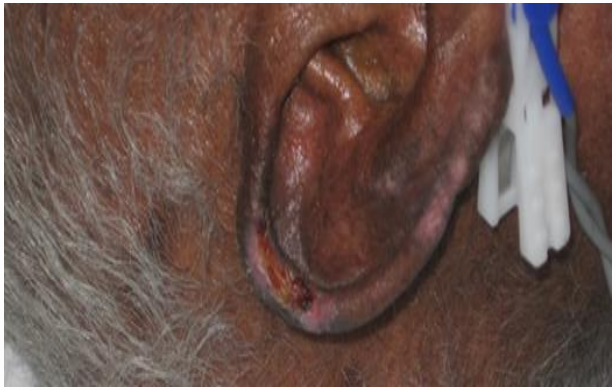
- Located on mucous membrane with history of a medical device use
- Mucosal membrane is the moist lining of body cavities/organs such as tongue, mouth, nasal passage, genitals, rectum
- Mucosal tissue is not skin therefore can not be staged with NPUAP staging system

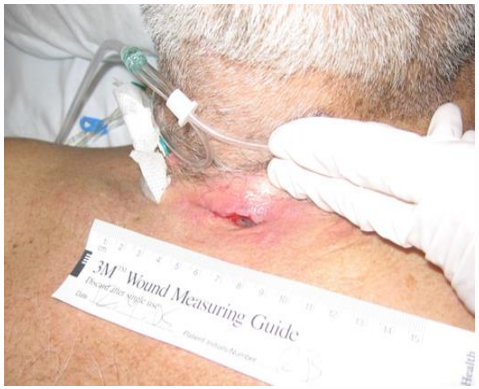


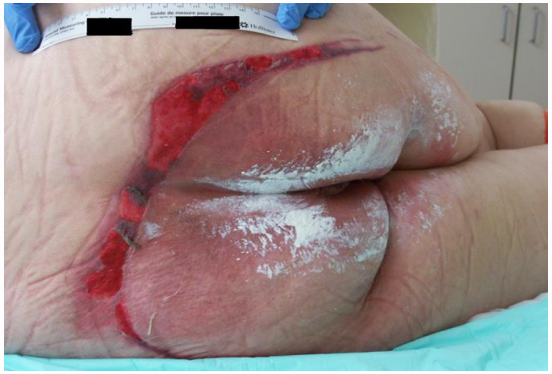


Medical Device Related Pressure Injury (MDRPI)

- Pressure injury from devices designed and used for diagnostic or therapeutic purposes
- Other devices such as hair accessories, ponytails, braids can cause pressure injuries
- Generally conform to pattern or shape of device
- May become full thickness quickly due to lack of adipose (fat) in anatomical locations many devices are used
- Should be staged using the NPUAP staging system

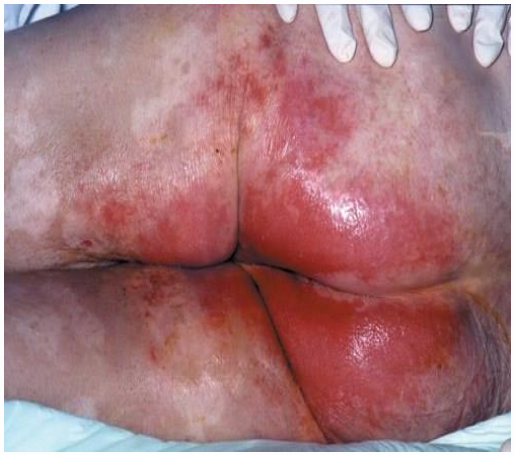






Incontinence Associated Dermatitis [3](IAD)

- Inflammatory skin response from exposure to urine and feces
- May or may not include partial thickness erosion or denudation (loss of epidermis)
- Full thickness skin damage is not defined as IAD
- Should not be mistaken for a stage 2 pressure injury although pressure injuries and IAD can co-exist
- Patients with IAD are more likely to develop sacral-coccygeal pressure injuries



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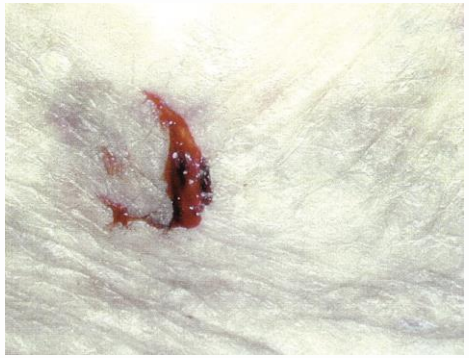
Skin Tears [2]

- Caused by shear, friction, and/or force that leads to a separation of skin layers
- Skin tears are not pressure ulcers
- Risk factors for skin tears:
  - Dry, fragile skin
  - History of previous skin tears
  - Medications that affect skin (e.g. steroids)
  - Impaired mobility or vision
  - Cognitive or sensory impairments
  - Dehydration
  - Malnutrition
  - Advanced age



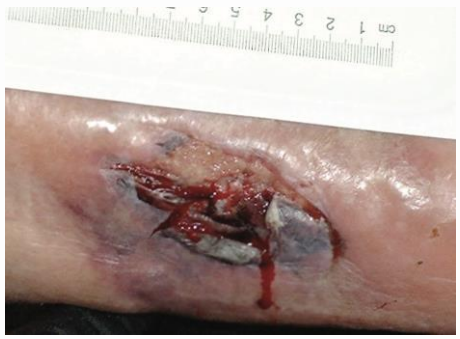
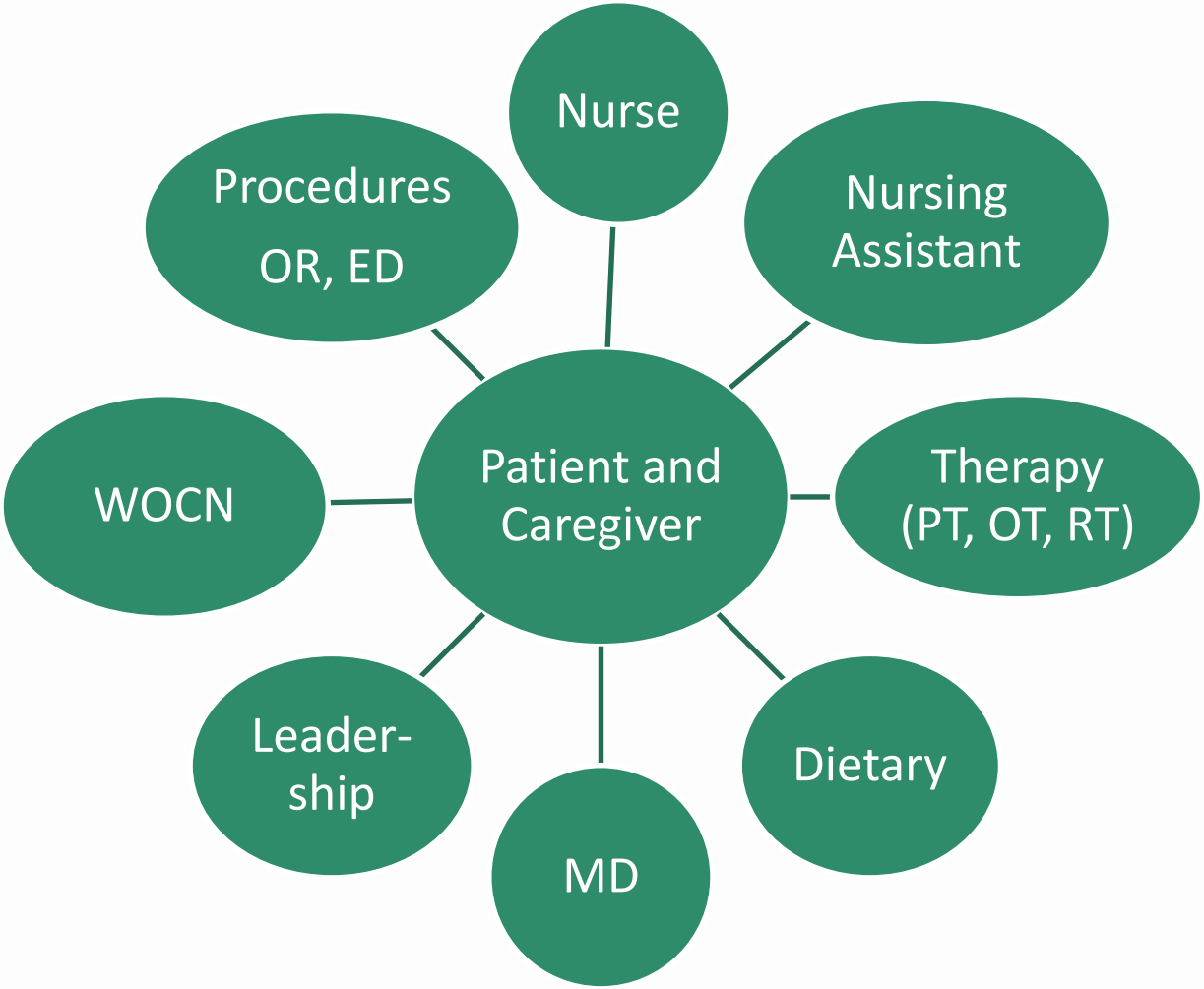


Photo Credit: Bryant Bryant, R. Nix, D. Coeditors: Acute and Chronic Wounds: Current Management Concepts, 5th Edition. St. Louis, Mosby/Elsevier January 2016

Pressure Injury Documentation (2)

- Risk Assessment and skin inspection results
- Preventive interventions including patient/family education and informed patient refusals
- After thorough wound cleansing, document:
  - Blanchability of pressure related discoloration of intact skin
  - Presence of blisters serous filled, blood filled intact or ruptured
  - Color of wound bed; pink, red, white, yellow brown, black
  - Exudate level; dry, scant, moderate or large amount of drainage
  - Presence or history of medical device at the site of the pressure injury
  - Condition of periwound skin; intact, macerated
  - Wound related pain assessment
- Interdisciplinary communications, notifications, and consults

Interdisciplinary Skin Safety Team



Post Test

1. Which describes a stage I pressure injury?

A. Nonblanchable erythema of intact skin
B. **Pressure related nonblanchable erythema of intact skin**
C. Dark or Maroon intact skin
D. Requires massage to improve circulation

2. Which describes a stage 2-pressure injury?

A. Partial thickness, open, pink and very shallow
B. Pressure related serous filled or ruptured blister
C. Pressure related blood filled or ruptured blister
D. Caused by incontinence

3. Which describes a stage 3-pressure injury?

A. Can be shallow or deep
B. Has mostly red tissue in the wound base
C. Full thickness tissue loss
D. All from above

Post Test

4. According to the NPUAP staging system, a shallow pink pressure injury inside the lip from an endotracheal tube is

A. An unstageable pressure injury

B. A stage 2 pressure injury

C. Not actually a pressure injury

D. A mucosal pressure injury

5. According to the NPUAP staging system, a pressure injury on the skin that open but covered with yellow, brown, or black nonviable tissue is a

A. Full thickness unstageable pressure injury

B. Stage 4 pressure injury

C. Pressure related deep tissue injury

D. None of the above

References and Resources

1. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. (2014). Prevention and treatment of pressure ulcers: Clinical practice guideline. Cambridge Media: Perth, Australia
2. Bryant Bryant, R. Nix, D. Coeditors: Acute and Chronic Wounds: Current Management Concepts, 5th Edition. St. Louis, Mosby/Elsevier January 2016
3. Beeckman D, van Lancker A, van Hecke A, Vergaeghe S. A systematic review and meta-analysis of incontinence-associated dermatitis, incontinence, and moisture as risk factors for pressure ulcer development. Res Nurs Health 2014;37(3):204-18.
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7. WOCN.org