



Clinical Guidelines: Pressure Ulcers

March 2020



SerenaGroup
Building the Nation's Leading Wound Care Team

Pressure Ulcers/Injuries

- Pressure ulcers occur in up to 23% of patients in long-term and rehabilitation facilities
- Over 2.5 million people a year in the US will develop a pressure ulcer
- Estimated that 60,000 patients die yearly as a result of pressure ulcers
- Described as one of the most expensive and debilitating diseases in the 20th century
- Sometimes referred to as bedsores or pressure sores
- Common injury associated with patients confined to a bed or wheelchair

Pressure Ulcers/Injuries

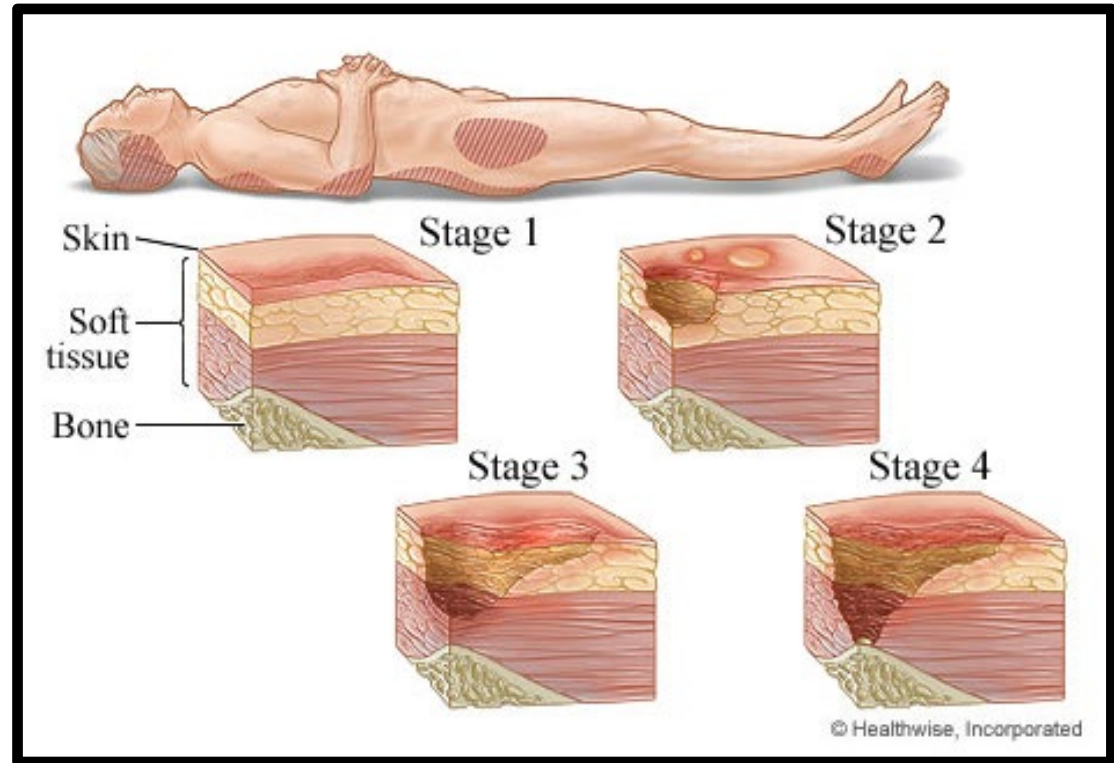
- Localized injury to the skin or underlying tissue
- Usually found over a bony prominence or where a medical or other type of device is left in place
- Result from intense pressure in combination with shear and/or friction
- Can result from a lack of blood supply, oxygen and nutrients
- Typically caused by laying in one position for too long

Symptoms

- Unusual changes in color or texture
- Swelling
- Pus-like draining
- Skin area that feels cooler or warmer to the touch than other areas
- Tender areas

Assessment

- Pressure ulcers are staged according to their severity, depth and other characteristics
 - Stage I
 - Stage II
 - Stage III
 - Stage IV
 - Unstageable
 - Deep Tissue Injury (DTI)



Pressure Ulcer Staging

- Stage I: 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.
- Stage II: Partial thickness 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.

Pressure Ulcer Staging

- Stage III: 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.
- Stage IV: 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 tunneling typically occur.

Pressure Ulcer Staging

- Unstageable: 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.
- Deep Tissue Injury (DTI): 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.

Risk Factors

- Osteomyelitis
- Disruption of quality of life

Prevention

- Turn and reposition patient
- Keep the skin clean and dry
- Avoid activities that lead to sheering when possible
- Use specialty mattresses or cushions
- Mobilize the patient as much as possible
- Avoid dehydration
- Consider nutritional supplementation or dietary consult
- Manage fecal and urinary incontinence
- Keep the head of the bead less than 30 degrees unless contraindicated

Treatment

- It is important to maintain the guidelines for prevention
- Evaluate patient for osteomyelitis
- Consider negative wound pressure therapy
- Consider surgical referral for graft or flap closure
- Dressings should maintain proper moisture balance
- Follow-up should start weekly in the Acute Phase moving to every other week once stabilized
- Monthly follow-up if palliative in nature

Tests to Order

- While there is no definitive lab test, there is agreement the following should be ordered, followed and managed:
 - **HgbA1C**- an indicator of long-term glucose control. The test reflects average glucose levels for the preceding 8-12 weeks.
 - **Glucose**- elevated level can impede PMN leukocyte, chemotaxis, diapedesis & phagocyte production.
 - **CBC**- measures: RBC, WBC, HGB, HCT, & platelets. Platelets release cytokines & PDGF which recruit cells to take part in healing.
 - Consider Pre-albumin in patients with normal fluid balance and no inflammation.

Name _____ Date _____

Quiz - 1

1. Pressure ulcers occur in up to 23% of hospital inpatients.

TRUE

FALSE

2. Partial thickness loss down to exposed dermis describes the depth for what stage of pressure ulcers?

A. Stage I

B. Stage II

C. Stage III

D. Stage IV

3. Pressure ulcers are staged according to the following:

A. Severity

B. Depth

C. Other characteristics

D. All of the Above

Quiz – 2

4. Prevention of pressure ulcers include all of the following except:
- A. Avoiding dehydration
 - B. Elevating the wound above the level of the heart
 - C. Turning and repositioning the patient
 - D. Keeping the skin clean and dry
5. Having a patient stay in the same position as long as possible is a great way to prevent pressure ulcers.
- TRUE FALSE
6. Characteristics of pressure ulcers include:
- A. Result from a lack of nutrients
 - B. Found over a bony prominence
 - C. Result from intense pressure with shear and/or friction
 - D. All of the Above

Quiz – 3

7. Full thickness skin and tissue loss down to exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone describes the depth for what stage of pressure ulcers?

- A. Stage I B. Stage II C. Stage III D. Stage IV

8. Which one of the following symptoms are not associated with pressure ulcers?

- A. Tender areas
B. Calcium deposits
C. Skin area that feels cooler to the touch
D. Unusual changes in color or texture

9. Pressure ulcers are of the one more inexpensive conditions treated in the wound clinic.

- TRUE FALSE