PRESSURE INJURIES

Dr. Carol Ott MD, FRCPC

[Email address]

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Pressure injuries are commonly referred to as bedsores, decubitus ulcers, pressure sores and pressure ulcers. The name was recently changed as of April 2016 to Pressure injuries to reflect the fact that a patient could develop a pressure injury that is not currently open. For example, a stage 1 pressure injury or a deep tissue injury have closed skin but could lead to a wound and need to be aggressively treated to minimize damage.[1]

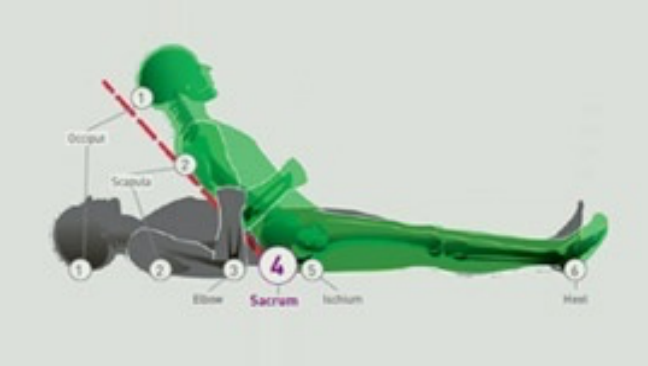

Figure 1: Most common areas of pressure injury.

Most common areas include coccyx, sacrum, ischium, heels, scapula, ears and head.

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.[2] The injury occurs as a result of intense and/or 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.[1]

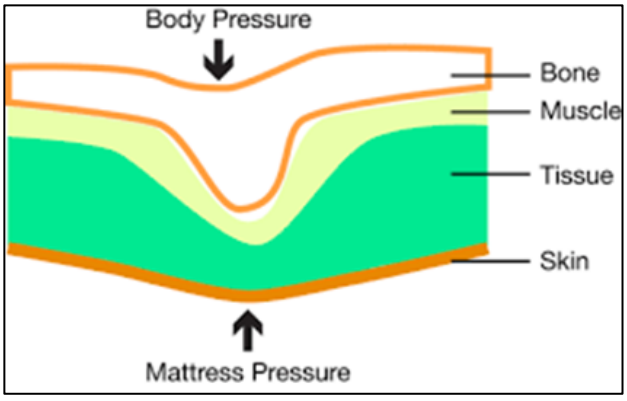

Figure 2: Diagram of how pressure leads to injury

Risk Factors for Pressure Injuries

- Old age
- Male gender
- Dry skin over bony prominences
- Incontinence
- Difficulty turning in bed
- Residing in a nursing home
- Prior hospitalization in the last [6] months
- Poor nutritional status[5]

PRESSURE INJURY STAGES & DEFINITIONS	FURTHER NOTES (taken from www.npaup.org – please look up this for further information and pictures)
STAGE 1 Non-blanchable erythema of intact skin.	▪ Intact skin ▪ May appear differently in darkly pigmented skin ▪ Presence of blanchable erythema or changes in sensation, temperature, or firmness may precede visual changes.
STAGE 2 Partial-thickness skin loss with exposed dermis	▪ Wound bed is viable, pink or red and moist ▪ May also present as an intact or ruptured serum-filled blister ▪ Adipose (fat) is **not visible** and deeper tissues are **not visible.** ▪ This stage should not be used to describe moisture associated skin damage (MASD) including incontinence associated dermatitis (IAD), intertriginous dermatitis (ITD), medical adhesive related skin injury (MARSI), or traumatic wounds (skin tears, burns, abrasions).
STAGE 3 Full thickness skin loss	▪ **Adipose (fat)** is visible in the ulcer ▪ Epibole (rolled wound edges) are often present. ▪ Slough and/or eschar may be visible. ▪ Depth of tissue damage varies by anatomical location ▪ Undermining and tunneling may occur.
STAGE 4 Full-thickness skin and tissue loss	▪ 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.

UNSTAGEABLE PRESSURE INJURY Obscured full-thickness skin and tissue loss	▪ 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 the heel or ischemic limb should not be softened or removed.
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. ▪ From intense and/or prolonged pressure and shear forces at the bone-muscle interface. ▪ **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).

PREVENTION IS KEY

- We want to PREVENT Pressure injuries from occurring.
- Canadian Patient Safety Institute as declared Stage 3 and 4 pressure injuries that are acquired after admission to hospital as a "Never Event" in 2015.[3]
- In US, there can be funding issues if a Stage 3 or 4 pressure injury occurs.[4]
- Cost for treatment of stage 3 or 4 pressure injury can be $43 180[4]

MANAGEMENT

- Management needs a multidisciplinary approach.
- Pressure, Moisture and Friction/Shear are contributing to the issues of non-healing and must be dealt with in order to heal a wound.
- Pressure, Friction and Shear forces may require the use of offloading mattresses, offloading seat cushions, instructions from physiotherapists and occupational therapists.
- Infection needs to be identified and treated; osteomyelitis is common in stage 4 pressure injuries.
- Debridement (surgical) may be needed as well.
- For bandaging – an absorptive dressing is needed.

REFERENCES

1. www.npaup.org

2.https://members.nursingquality.org/ndnqipressureulcertraining/Module1/PressureUlcerDefinition_1.aspx

3.Canadian Patient Safety Institute. Never Events for Hospital Care in Canada, Safer Care for Patients September 2015.

4.Zaratkiewicz, S. et al. "Development and Implementation of a Hospital-Acquired Pressure Ulcer Incidence Tracking System and Algorithm" (2010) 32:44-51.

5.Baumgarten, M., Margolis, D. J., Localio, A. R., Kagan, S. H., Lowe, R. A., Kinosian, B., et al. (2006). Pressure ulcers among elderly patients early in the hospital stay. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences, 61*(7), 749–754.

Prepared by Dr. Carol Ott MD, FRCPC

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