Wound Staging

Description

Staging gives us a standardized way to describe wounds. Any wound may be staged, not just pressure ulcers. It is important to remember: if a wound base is not visible because of non-viable tissue, you cannot stage it.

Many physicians use the terms “partial thickness” or “full thickness” to describe wounds. Burns are also classified in this way. The National Pressure Ulcer Advisory Panel (NPUAP) sets the standard for staging wounds. They have a very helpful website with links to other organizations related to wounds. They are at NPUAP.org on the Web.

Partial Thickness

Correlates to Stages I and II
- Shallow—Involves epidermis and dermis
- Moist
- Painful
- Pink/red color

Full Thickness

Correlates to Stages III and IV
- May present as shallow or deep
- Extends to subcutaneous layer or deeper
- Depth may or may not exceed 0.5 cm
- May include necrotic tissue or infection
- Often extensive tissue damage

The Four Stage System is the “Universal Language” of Pressure Ulcer classifications:

Stage I
- Characterized by intact skin with non-blanchable redness of a localized area, usually over a bony prominence
- Darkly pigmented skin may not have visible blanching, but its color may differ from the surrounding area
- To identify a Stage I pressure ulcer, compare the suspected area to an adjacent area or the same region on the other side of the body. Indications of a Stage I pressure ulcer may include changes in one or more of the following:
  - skin temperature (warmth or coolness)
  - tissue consistency (firm or boggy feel)
  - sensation (pain, itching)
Stage II

- Characterized by partial thickness loss of the dermis. This ulcer presents as a shallow, open ulcer with a red/pink wound bed without slough. It can also present as an intact or open serum-filled blister.

Stage III

- Characterized by full-thickness tissue loss. Subcutaneous fat may be visible, but bone, tendon, and muscle aren’t exposed. Slough may be present but doesn’t obscure the depth of tissue loss. Undermining and tunneling may be present. The depth of a Stage III ulcer varies by anatomical location.

Stage IV

- Involves full-thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar may be present on some parts of the wound bed. Undermining and tunneling are common. The depth of a Stage IV ulcer varies by anatomical location.
  - Osteomyelitis is a possible complication

Unstageable Pressure Ulcers

- Characterized by full-thickness tissue loss in which the base of the ulcer in the wound bed is covered by slough (yellow, tan, gray, green, or brown), eschar (tan, brown, or black), or both. Until enough slough or eschar is removed to expose the base of the wound, the true depth—and therefore stage—cannot be determined.

Deep Tissue Injury (DTI)

- Characterized by a purple or maroon localized area of intact skin or blood-filled blister caused by damage to underlying soft tissue from pressure or shear. The injury may be preceded by tissue that is painful, firm, mushy, boggy, or warm or cool, compared to adjacent tissue. DTI may be difficult to detect in individuals with dark skin tones.

Back-staging Wounds

- As wounds progress, they do not “back-stage.” For example, a Stage IV pressure ulcer that progresses from a 3 cm depth to a 1.5 cm depth does not become a “Stage III.” It continues to be a Stage IV.

References: http://www.npuap.org/pr2.htm and http://www.npuap.org/archive/positn2.htm
Glossary

- **Avascular**: Lacking in blood supply. Synonyms are dead, devitalized, necrotic, and nonviable. Specific types of avascular tissue include slough and eschar.
- **Clean Wound**: Wound free of devitalized tissue, purulent drainage, foreign material, or debris. Is a pre-granular state.
- **Closed Wound Edges**: Edges of top layers of epidermis have rolled down to cover lower edge of dermis, including basement membrane, so that epithelial cells cannot migrate from wound edges.
- **Dead Space**: A defect or cavity. Describes wound base depth, undermining, or tunneling.
- **Dehisced** or **Dehiscence**: Separation of surgical incision; loss of approximation of wound edges.
- **Epidermis**: Outermost layer of skin.
- **Epithelialization**: Regeneration of epidermis across a wound surface.
- **Eschar**: Black or brown necrotic, devitalized tissue. Can be loose or firmly adherent, hard, soft, or soggy.
- **Fistulas & Sinus Tracts**: An abnormal communication between an organ or vessel and another organ, vessel, or area of the skin. A sinus tract is also known as tunneling. This is a channel that extends through part of a wound into adjacent tissue, with resulting dead space and infection.
- **Full Thickness**: Tissue damage involving total loss of epidermis and dermis, extending into the subcutaneous tissue and possibly into the muscle or bone.
- **Granulation Tissue**: The pink/red, moist tissue comprised of new blood vessels and collagen tissue, that fills an open wound when it starts to heal. Typically appears deep pink or red with an irregular surface.
- **Hyperkeratosis**: Hard, white/gray tissue surrounding the wound.
- **Infection**: The presence of bacteria or other microorganisms—below the wound surface and/or in surrounding tissues—that, in sufficient quantity, can damage tissue or impair healing. Wounds can be classified as infected when the wound tissue contains 100,000 or greater microorganisms per gram of tissue. Typical signs and symptoms of infection include purulent exudate, odor, erythema, warmth, tenderness, edema, pain, fever, and elevated white cell count.
- **Maceration**: “Waterlogged” softening of skin and tissue related to prolonged exposure to moisture.
- **Necrotic Tissue**: See avascular.
- **Non-granulating**: Absence of granulation tissue; wound surface appears smooth, as opposed to granular. For example, in a wound that is clean but non-granulating, the wound surface appears smooth and red, as opposed to “berry-like”, clean.
- **Partial Thickness**: Confined to the skin layers; damage does not penetrate below the dermis and may be limited to the epidermal layers only.
- **Reactive Hyperemia**: Extra blood in vessels in response to tissue hypoxia caused by a period of blocked/closed blood vessels. This condition usually resolves after a few minutes.
- **Sinus Tract**: Course or path of tissue destruction occurring in any direction from the surface or edge of the wound; results in dead space with potential for abscess formation. Also called tunneling. (Can be distinguished from undermining by the fact that sinus tract involves a small portion of the wound edge, whereas undermining involves a significant portion of the wound edge).
- **Skin Barrier**: A product used to provide a protective layer on top of the skin. These products are available in many forms including wipes, sprays, and ointments.
- **Slough**: Soft, moist, avascular (devitalized) tissue. May be white, yellow, tan, or green. May be loose or firmly adherent.
- **Tunneling**: See sinus tract.
- **Undermining**: Area of destruction extending under intact skin along the periphery of a wound. Commonly seen in shear injuries. (Can be distinguished from sinus tract by fact that undermining involves a significant portion of the wound edge, whereas sinus tract involves only a small portion of the wound edge).

Reference: Wound Care Made Incredibly Easy. Lippincott Williams & Wilkins; 2003
Innovative Therapies: Designing wound care to optimize outcomes

Innovative Therapies is a medical device company specializing in advanced wound care. Our patented negative pressure wound therapy (NPWT) system, the SVED System, was developed by NPWT pioneer Dr. Pål Svedman, and has over 30 years of proven clinical success. The SVED System is the only device that combines NPWT with our proprietary simultaneous irrigation technology and advanced foam dressings to promote wound healing and patient comfort. Our one-touch therapy feature allows the user to select and lock pressure settings with the touch of a button, saving steps and reducing the likelihood of entry error.

The Innovative Therapies Wound Treatment System is easy to administer, cost-effective, and suitable for any healthcare setting. We are committed to providing the most technologically advanced wound care products, designed to help improve clinical outcomes while increasing ease of use.