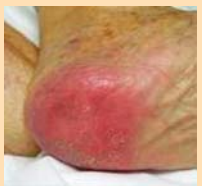
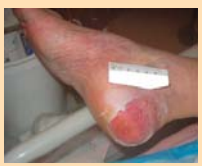
Supplemental Digital Content 2.

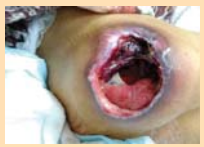
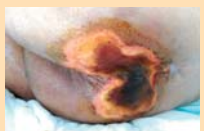
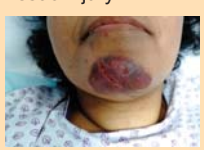
COMPARISON OF CMS RAI MANUAL AND NPUAP STAGING DEFINITIONS

	CMS RAI Manual Definition	NPUAP 2016 Definition*
Pressure ulcer	"A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction."[12]	**Pressure injury: 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 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, comorbidities, and condition of the soft tissue.
Stage 1  © J. Niezgoda, 2017	"An observable, pressure-related alteration of intact skin, whose indicators as compared to an adjacent or opposite area on the body may include changes in one or more of the following parameters: skin temperature (warmth or coolness); tissue consistency (firm or boggy); sensation (pain, itching); and/or a defined area of persistent redness in lightly pigmented skin, whereas in darker skin tones, the ulcer may appear with persistent red, blue, or purple hues."[12]	**Stage 1 pressure injury**: **Nonblanchable erythema of intact skin.** Intact skin with a localized area of nonblanchable 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.
Stage 2  © E.A. Ayello, 2017	"Partial-thickness loss of dermis presenting as a shallow open ulcer with a red-pink wound bed, without slough. May also present as an intact or open/ ruptured blister."[12]	**Stage 2 pressure injury**: **Partial-thickness skin loss with exposed dermis.** Partial-thickness loss of skin 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. 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  © H Smart.	Full-thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining or tunneling.[12]	**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 and/or bone are not exposed. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

(continues)

Supplemental Digital Content 2.

COMPARISON OF CMS RAI MANUAL AND NPUAP STAGING DEFINITIONS, CONTINUED

	CMS RAI Manual Definition	NPUAP 2016 Definition
Stage 4  © H. Smart, 2017	Full-thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunneling.[12]	**Stage 4 pressure injury: 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. Depth varies by anatomical location. If slough or eschar obscures the extent of tissue loss this is an unstageable pressure injury.
Unstageable  © H. Smart, 2017	**Slough tissue**—nonviable yellow, tan, gray, green or brown tissue; usually moist, can be soft, stringy, and mucinous in texture. Slough may be adherent to the base of the wound or present in clumps throughout the wound bed. **Eschar tissue**—dead or devitalized tissue that is hard or soft in texture; usually black, brown, or tan in color, and may appear scablike. Necrotic tissue and eschar are usually firmly adherent to the base of the wound and often the sides/ edges of the wound.[12]	**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 (ie, dry, adherent, intact without erythema or fluctuance) on the heel or ischemic limb should not be softened or removed.
Unstageable	Includes, for example, a primary surgical dressing that cannot be removed, an orthopedic device, or cast.[12]	None
Unstageable/deep tissue injury  © H. Smart, 2017	Purple or maroon area of discolored intact skin due to damage of underlying soft tissue. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer, or cooler as compared with adjacent tissue.[12]	**Deep tissue pressure injury: Persistent nonblanchable deep red, maroon, or purple discoloration.** Intact or nonintact 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. 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.

Abbreviations: CMS, Centers for Medicare & Medicaid Services; DPTI, deep tissue pressure injury; NPUAP, National Pressure Ulcer Advisory Panel; RAI, Resident Assessment Instrument.

*Definitions copyright NPUAP, used with permission.