

Appendix I: Pressure injuries in people with dark skin tones

The following document from the Pan Pacific Pressure Injury Alliance outlines some considerations for risk assessment and treatment of pressure injuries in people with dark skin tones. Additionally, it includes classification based on the NPIAP/EUPAP classification system with examples of each stage in people with dark skin tones.

Figure 6: Pressure injury in people with dark skin tones

Pressure Ulcers in People with Dark Skin Tones

PAN PACIFIC PRESSURE INJURY CLASSIFICATION SYSTEM FOR DARK SKIN TONES

Category/Stage I:
Intact skin with non-blanchable redness of a localized area usually over bony prominences. Darkly pigmented skin may not have visible blanching. Its colour may differ from the surrounding area. The area may be painful, firm, or have a change in temperature. It may be difficult to detect in individuals with darkly pigmented skin tone. May indicate 'at-risk' individuals (a heralding sign of risk).

Category/Stage II:
Partial thickness loss of dermis presenting as a shallow open ulcer with a well-demarcated border. May be a shallow ulcer with a moist, pink, or red bed. May be a ruptured bluish-brown bulla, or a shallow ulcer without slough or fibrinous exudate. Suspected deep tissue injury. Stage 2 pressure ulcers can be difficult to detect in individuals with dark skin tones, large burns, pressure dermatitis, maceration or excoriation.

Category/Stage III:
Full thickness tissue loss. Subcutaneous fat may be visible, but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the wound bed. The depth of the wound varies by anatomical location. The depth of the wound may not be fully appreciated due to the presence of ear, ocular and nailfold. It does not have subcutaneous tissue and Stage 3 ulcers can be difficult to detect in individuals with dark skin tones. Stage 3 pressure ulcers can be difficult to detect in individuals with dark skin tones, large burns, pressure dermatitis, maceration or excoriation.

Category/Stage IV:
Full thickness tissue loss in which the ulcer base is covered by slough (yellow, tan, grey, green or brown) and/or eschar (tan, brown or black) in the wound bed. The depth of the wound, the true depth, and therefore Stage 4 cannot be determined. Stable (dry, adherent, intact without erythema or fluctuance) ulcers can be difficult to detect in individuals with dark skin tones. Stage 4 pressure ulcers can be difficult to detect in individuals with dark skin tones, large burns, pressure dermatitis, maceration or excoriation.

A pressure ulcer (PU) can be defined as:
"Localised damage to the skin and / or underlying tissue, as a result of pressure, or pressure in combination with shear. Pressure injuries / ulcers usually occur over a bony prominence but may also be related to a medical device or other object"¹

Pressure ulcers are categorised by their severity and may be limited to the superficial tissues of the epidermis and dermis or extend to deeper tissue exposing and/or involving muscle, tendon and bone. Early detection of pressure related skin damage is essential, as it allows for appropriate intervention which can prevent progression to more severe ulceration². Therefore, the ability to accurately identify and confirm Category I pressure ulcers in people with dark skin tones is essential. Health professionals and carers are typically taught to look for redness (erythema) as a first sign of pressure damage and what this is relatively simple to identify in Caucasian skin it can prove to be difficult to diagnose accurately when assessing individuals with darker skin tones. It is likely that Category I PUs are under-reported in individuals with dark skin tone due to failure to identify early differences in skin colour as a result of pressure related tissue injury³.

Skin pigmentation can mask the visual indication of erythema and Category I pressure ulcers are more likely to go undetected and deteriorate to full thickness pressure ulcers (Category III and IV) in darkly pigmented skin. The early signs and symptoms in dark skin tones. It is essential for clinical staff and carers to recognise the other signs and symptoms than can be observed on the skin as early indicators of pressure related tissue injury^{4, 5}.

These important additional indicators of pressure related tissue injury to the skin include:

- Purple/bluish discoloration
- A purple hue where ischaemia is present
- Localised oedema / swelling due to the inflammatory response
- Temperature change – initial warmth due to the inflammatory response
- Pain and discomfort
- Alteration in sensation in response to either inflammation or ischaemia
- Change in tissue consistency in relation to surrounding tissue. For example, induration (hardness) due to excessive inflammation and necrosis. May also become soft and boggy.

When the above indicators and symptoms are applicable to all skin tones, they can be used to identify pressure ulcers in individuals with dark skin tones when obvious pressure-related redness on the skin can be more difficult to identify.

CONSIDERATION FOR CLINICAL PRACTICE

Skin should be carefully inspected for any discoloration over pressure areas. The surrounding skin should be assessed more closely for temperature changes, oedema, changes in tissue consistency and pain⁶.

Non-vital signs, such as, signs and symptoms of tissue necrosis, present differently on different skin tones. Education is a critical factor in ensuring that all members of the clinical team can strive to prevent and treat pressure ulcers according to the best evidence available⁷.

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