

# NPIAP 2025 Presentation: Integrating the 2025 Guidelines into Practice for Patients with Dark Skin Tones (DST)

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## Risk & Problem

Patients with dark skin tone remain at higher risk for undiagnosed Stage 1 pressure injuries (PIs), leading to delayed interventions and more severe injuries.<sup>1</sup>

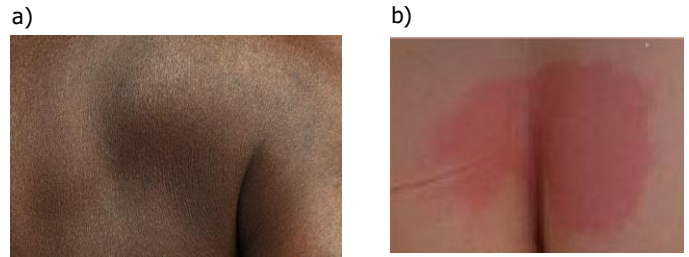
**15%**

Prevalence of PIs, with higher-stage injuries more common in patients with DST<sup>2</sup>

**1.7x**

Higher likelihood of DST patients developing PIs<sup>3</sup>

**FIGURE 1:** Non-blanching erythema in a) dark skin tone patient b) light skin tone patient

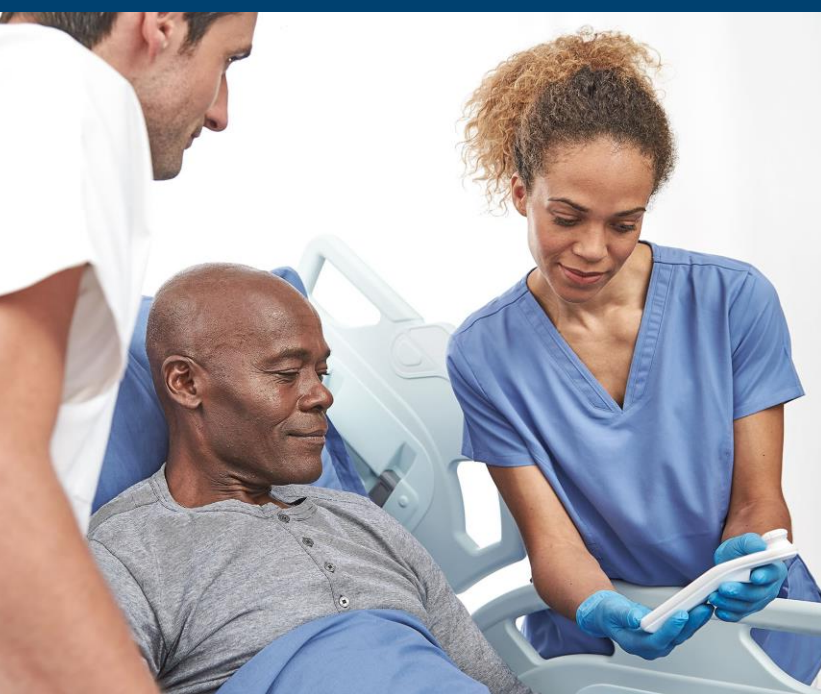


## Full recommendations

## SEM Assessment Recommendations

CLINICAL TOPICS	STATEMENT	EXPLANATION	RECOMMENDATIONS
<b>RECOGNIZING DISCOLORATION IN DST</b>	In DST, look for subtle discolorations (purple /gray hues).	Melanin-rich skin does not reliably display blanchable erythema	<ul style="list-style-type: none"> <li>Train clinicians on non-erythematous signs &amp; ensure consistent skin tone documentation</li> <li>Combine VSA with tactile exam (temperature, induration or firmness)</li> </ul>
<b>IMPORTANCE OF MOISTURIZATION</b>	Moisturizing skin with water-based products improves visual and tactile detection. Dry, scaly skin on DST can mask early changes.	Hydration enhances skin elastic, minimizes dryness and amplifies light reflection, making textural and tonal changes more noticeable	<ul style="list-style-type: none"> <li>Standardize use of moisturizing protocols in VSAs, especially in individuals with dry or thickened skin</li> </ul>
<b>COMPARATIVE ASSESSMENT</b>	Perform bilateral or symmetrical comparisons.	Bilateral or symmetrical comparison helps distinguish variations in pigmentation from emerging signs of PIs	<ul style="list-style-type: none"> <li>Routine comparative checks of questionable and unaffected skin as part of bedside assessments for at-risk patients, including palpation</li> </ul>
<b>USE OF PHOTOGRAPHY FOR DOCUMENTATION</b>	High-res photography establishes baseline conditions and monitors changes over time in high-risk populations	Consistent imaging helps with tracking subtle changes over time	<ul style="list-style-type: none"> <li>Use Standardized lighting &amp; camera settings to ensure comparability over time</li> </ul>
<b>OPTIMIZE LIGHTING CONDITIONS</b>	Avoid fluorescent lighting – seek natural, ambient or halogen light during VSA	Fluorescent light produces glare and distorts color perception, while white light improves visibility of subtle changes	<ul style="list-style-type: none"> <li>Equip assessment areas with appropriate lighting</li> </ul>
<b>LEVERAGE TECHNOLOGY FOR EARLY DETECTION</b>	Sub-epidermal moisture (SEM) measurement and thermography imaging are assessment tools that detect early-stage PIs before visual changes	Early signals of tissue damage. SEM detects localized moisture changes indicative of inflammation. Thermography identifies variation in skin temperature	<ul style="list-style-type: none"> <li>Integrate non-invasive technologies into standard protocols for at-risk patients to augment existing assessments</li> </ul>
<b>RECOGNIZE EDEMA AND INFLAMMATION AS PRECURSORS</b>	Monitor localized edema and increased skin temperature, which often precede visual changes in PIs	They occur before clinical presentation of discoloration, making them critical markers for intervention	<ul style="list-style-type: none"> <li>Train clinicians to recognize and act on pre-clinical signs, supported by SEM</li> </ul>
<b>TAILORED EDUCATION AND TRAINING</b>	Provide tailored education on assessing PIs in DST patients	Many clinicians lack formal training on identifying disparity in care on DST patients	<ul style="list-style-type: none"> <li>Incorporate tailored training modules with diverse case studies and simulation-based learning into curricula</li> </ul>
<b>ROUTINE USE OF SEM, THERMOGRAPHY AND LASER IMAGING</b>	SEM assessment should be conducted routinely in high-risk populations to identify preemptively skin at risk of breakdown.	SEM technology detects tissue changes up to 10 days before visible damage occurs, allowing for earlier interventions and better patient outcomes	<ul style="list-style-type: none"> <li>Equip facilities with SEM devices and provide training for their use as part of a comprehensive pressure injury prevention strategy.</li> </ul>
<b>HOLISTIC COMMUNITY BASED INTERVENTIONS</b>	Engage DST communities with education and prevention strategies	Addressing systemic health disparities and approve community awareness can reduce incidence of advanced PIs	<ul style="list-style-type: none"> <li>Develop culturally relevant outreach programs and resources for PI prevention</li> </ul>

Clinical Topics	Statement	Explanation	Recommendations
<b>Leverage Technology For Early Detection</b>	Sub-epidermal moisture (SEM) measurement...are assessment tools that detect early-stage PIs before visual changes	Early signals of tissue damage: SEM detects localized moisture changes indicative of inflammation...	Integrate non-invasive technologies into standard protocols for at-risk patients to augment existing assessments
<b>Recognize Edema and Inflammation As Precursors</b>	Monitor localized edema...which often precede visual changes in PIs	They occur before clinical presentation of discoloration, making them critical markers for intervention	Train clinicians to recognize and act on pre-clinical signs, supported by SEM
<b>Routine Use Of SEM...</b>	SEM assessment should be conducted routinely in high-risk populations to identify preemptively skin at risk of breakdown	SEM technology detects tissue changes up to 10 days before visible damage occurs, allowing for earlier interventions and better patient outcomes	Equip facilities with SEM devices and provide training for their use as part of a comprehensive pressure injury prevention strategy



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The cost of pressure injuries is real.  
The guidance is clear.  
Now is the time to act.

Cumulative Annual Cash Costs  
**\$3.8M** from 25 HAPIs per 1,000 patients<sup>4</sup>

### References

Source: "Integrating the 2025 Guidelines into Practice for Patients with Dark Skin Tones (DST)". Pusey E, Rodzen L, Presented at NPIAP, Dallas, USA, 2025.

1. Padula WV, et al. (2019): Value of hospital resources for effective pressure injury prevention: a cost-effectiveness analysis. *BMJ Qual Saf*;28:132–141.
2. VanGilder C et al. (2009). Results of the 2008-2009 International Pressure Ulcer Prevalence Survey and 3-year, acute care, unit-specific analysis. *Ostomy/Wound Management*, 55(11), 39–45.
3. Harms S et al. (2014). Prevalence of pressure ulcers by race and ethnicity for older adults admitted to nursing homes. *Journal of Gerontological Nursing*, 40(3), 20–26.
4. Posnett, J et al. (2025). Evaluating the cost-effectiveness of sub-epidermal moisture (SEM) assessment technology. Accepted and Presented at NPIAP 2025, Dallas, TX, USA.



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Costs were not presented as part of the NPIAP 2025 Pusey presentation. Based on CMS MedPAR FY2023 Data analysis by Bruin Biometrics using published pressure injury rates, treatment costs, and increased length of stays from HAPIs. Based on the nationwide average of 3.76% incidence of reportable HAPIs (Stages 2, 3, 4), adjusted to 66% for heels and sacral areas = 25 PIs per year / 1000 patients.

Authors noted thermography and laser imaging in the Good Practice Statement, but the technologies were not mentioned in the explanation or recommendations.