

Clarity PSO Learning Series

Topic: Pressure Ulcers

For the last several months, Clarity PSO has been reviewing and monitoring skin-related events reported by our clients. Given the opportunity to look deep into the events and get to the root of some of the issues, we decided to focus on new or existing pressure ulcers that advanced to stage III or stage IV, unstageable and most specifically, suspected deep tissue injuries.

Suspected deep tissue injury (sDTI) is a term used by the National Pressure Ulcer Advisory Panel (NPUAP) to describe a unique form of pressure ulcers. It is one of six stages/categories of pressure ulcers and is defined as “A pressure-related injury to subcutaneous tissues under intact skin. Initially, these lesions have the appearance of a deep bruise” (2012). Deep tissue injuries are unique due to their potential for rapid deterioration. These injuries can quickly develop into a stage III-IV pressure ulcer causing the patient more harm and resulting in a significant financial burden to the patient and the healthcare institution. Braden’s (2013) research estimates that the daily cost of care for stage III-IV pressure ulcers is approximately \$5,622.98, which may not be reimbursable by CMS.

Although, “optimal treatment” may not be enough to prevent the deterioration of these injuries, rapid identification and initiation of treatment may diminish the surface area and depth of tissue damage. In this PSO Learning Series Report, we provide some of our findings on pressure ulcers, particularly suspected deep tissue injuries, as well as tools and resources related to this topic.



What We Learned

Through our event reporting data and additional research, we found:

- Pressure ulcers are a common problem across all healthcare settings (National Quality Forum [NQF], 2010)
- Approximately 2.5 million patients are treated each year in U.S. hospitals for pressure ulcers, and as many as 15% of patients may have pressure ulcers at any one time (NQF, 2010)
- About 60,000 patients die each year in the U.S. as a direct result of a hospital-acquired pressure ulcer (AHRQ, 2014)
- The most common principal reasons for hospitalization during which pressure ulcers are also present include (Russo, Steiner, & Spector, 2008):
 - Septicemia
 - Pneumonia

- Urinary tract infections
- Rehabilitation care, such as fitting of prostheses
- Respiratory failure
- 60% of the events reported meeting our inclusion criteria were categorized as sDTIs that were not present when the patient was admitted into the hospital and developed during his or her stay
- 72% of the events cited that those patients had risk assessments completed on admission
- Of the risk assessments that were completed, 86% of those patients were found to be at risk and developed sDTIs
- 30% of the at-risk patients had a device contribute to the sDTI. Devices were identified as follows:
 - Nasogastric tubes
 - Oxygen nasal prongs
 - Anti-embolic devices
 - Bed pans
 - Pressure dressings
 - Flexiseal tubes

These numbers reveal that while providers are being cognizant of performing risk assessments and accurately determining those patients that are at risk, patients are still developing sDTIs. This raises the question, are we missing something in our care or the initiation of care regarding patients with high risk for skin injuries? Furthermore, could many of these events have been prevented since the providers were aware of the patient's risk for skin breakdown prior to him or her developing the sDTI?

Sample Factors of High Risk Patients

- Age – typically over the age of 65
- Decreased mobility (e.g. due to paralysis, sedation, an illness requiring bed rest)
- Nutrition – obese patients and malnourished patients
- Conditions or illnesses that affect blood flow and the loss of sensation (e.g. diabetes, spinal cord injuries)

Recommendations

As we ask ourselves these questions, we need to keep in mind that according to the NPUAP, there is a greater risk for developing stage III-IV pressure ulcers in the presence of a suspected deep tissue injury. And as many clinicians know, there are inherent differences in the skill set and technique of their assessments. Some sDTIs may be unavoidable due to skin failure or uncontrollable events, such as accidents that occur before admission, but many are still preventable. As such, it is critical to understand the risk exposure of developing an advanced pressure ulcer and recognize that treatment and assessments vary given the situation.

Good assessments and proactive prevention programs, then, are key to preventing sDTIs. This includes regular maintenance to assure that your skin prevention program is timely and consists of the most updated and relevant (population sensitive/specific) protocols available.

The following are resources to help you learn more about skin-related injuries and to assist you in comparing and enhancing your skin program:

- [AHRQ Quality Indicators Toolkit: Selected Best Practices and Suggestions for Improvement - Pressure Ulcer](#)
- [Prevention and Treatment of Pressure Ulcers: Quick Reference Guide](#)
- [A Review of Deep Tissue Injury Development, Detection, and Prevention: Shear Savvy](#)
- [IHI How-to Guide: Prevent Pressure Ulcers](#)
- [Pressure Ulcers: What Clinicians Need to Know](#)
- [Mentor for the Preventions of Pressure Ulcers Program](#)
- [CMS will not reimburse for Stage III/IV PUs](#)
- [NPUAP Pressure Ulcer Root Cause Analysis \(RCA\) Template](#)
- [NPUAP Pressure Ulcer Scale for Healing \(PUSH Tool\)](#)

NPUAP Pressure Ulcer Stages/Categories

Stage I	Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its color may differ from the surrounding area.
Stage II	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 serum-filled blister.
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 depth of tissue loss. May include undermining and tunneling
Stage IV	Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunneling.
Unstageable	Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed.
Suspected Deep Tissue Injury	Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue.

References

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