**CDR 11: Process measure: Wound Bed Preparation Through Debridement of Necrotic or Non-viable Tissue**

**MEASURE STEWARD:**
Alliance of Wound Care Stakeholders and the US Wound Registry

This measure was developed via a consensus process in collaboration with the Alliance of Wound Care Stakeholders Member Organizations, which include 16 wound care related clinical associations.

**DESCRIPTION:**
Percentage of visits in which patients aged 18 years and older with a diagnosis of any wound or ulcer documented to have necrotic or non-viable tissue, underwent any type of clinically appropriate debridement.

**NUMERATOR:**
Wounds or ulcers that underwent any type of clinically appropriate debridement at the visit in which necrotic or non-viable tissue was documented as present. Debridement options include sharp, enzymatic, autolytic, and biological.

**DENOMINATOR:**
Number of visits in which any wound or ulcer is documented to have necrotic or non-viable tissue. For patients age 18 or older seen during the reporting period.

**DENOMINATOR EXCLUSIONS/EXCEPTIONS**

**EXCLUSIONS:** None

**EXCEPTIONS:** Appropriate debridement not prescribed for Medical, Patient or System Reasons

**RATIONALE:**
The process of removing barriers to healing is considered “wound bed preparation.” A key element of this is the removal of devitalized tissue. An ulcer or wound cannot be properly assessed until all the devitalized tissue is removed (e.g. unstageable pressure ulcers). Dead or foreign material increases the risk of infection and inhibits wound healing. Studies have documented a direct relationship between debridement frequency and likelihood of wound healing.

Documentation of the presence of any amount of necrotic material in a wound is an indication that debridement might be indicated. Necrotic tissue acts as a medium for bacterial growth, particularly anaerobic bacteria. Necrotic material increases the inflammatory response, adding to the systemic release of cytokines such as tumor necrosis factor and interleukins which promote a septic response. Necrotic tissues retard wound contraction, the principle contribution to wound closure when wounds are left to heal by secondary intention. Debridement can be accomplished via sharp techniques, mechanically (e.g. saline wet to dry dressings) autolytically (via certain dressings), enzymatically (using prescriptive agents), or biologically (e.g. maggots). Although it is widely accepted that wound debridement is necessary for optimal wound healing, no good evidence exists to establishing the effectiveness one method over another and is largely determined by a host of patient, wound and provider factors including pain, risk of bleeding (e.g. anticoagulant therapy), patient preference, co-morbid conditions and provider skill and/or training. There are instances when necrotic tissue should be
left in situ such as in patients with underlying vascular disease and ischemia or in patients with inflammatory ulcers who may exhibit pathergy in response to tissue trauma. These may be medical reasons for not performing debridement.

**Relationship between Process and Outcome:**
A recent retrospective study by Wilcox and colleagues of 154,744 wounds in patients >18 years of age assessed the relationship between debridement and outcome. Wounds of all etiologies were analyzed but major categories included: 19% DFUs, 26% venous and 16.2% pressure ulcers of which 70% healed. Frequent debridements healed the wounds in a shorter time (p<0.001). These results confirm those of Steed which showed that control subjects in a DFU RCT who received more frequent debridements were more likely to heal than subjects receiving only moist wound care.

**Gap in Practice:**
The Wilcox study demonstrated wide variations in practice by specialty with certain primary specialties being less likely to perform wound debridement (e.g. vascular surgeons were less likely than podiatrists). Since specialty of provider had an effect on wound outcome, this measure may address those differences. Wound healing was also more likely when debridement was performed at more frequent intervals and data suggested that among patients whose wounds failed to heal, debridements may have been performed at intervals too far apart (e.g. many weeks). However, data from this study also suggest that debridement based on an arbitrary time factor is inappropriate. The decision to debride should be based on the needs of the wound (e.g. the presence or amount of necrotic tissue in the wound bed).

**EVIDENCE:**


