

726 **Evaluating Outcomes and Pharmacoeconomics Associated with Collagenase Use in Burn Patients**

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**Introduction:** Collagenase is routinely used for partial thickness burns at our health-system. A 30 gram tube costs over \$300, which creates financial challenges for uninsured patients and impacts revenue capture. The objective of this medication utilization evaluation was to characterize the use of collagenase and evaluate compliance to our institution's criteria for use.

**Methods:** All admitted patients who received collagenase for burn injury from 3/14/21 to 6/14/21 were included. Patients were excluded if they were not admitted to the burn unit or left against medical advice. A cost analysis was also conducted.

**Results:** A total of 26 patients were included with a mean (SD) age of 45 (17) years. Most burns were thermal (77%) with a median (IQR) of 7.5% (1.9,13.5) total body surface area (TBSA). Twenty-three patients presented with mixed partial thickness or partial thickness burns (89%). The three remaining patients had full thickness burns, which is not an indication for collagenase use at our institution. There was a median of 1 (0,1) collagenase treatment day per TBSA. Median length of hospital stay was 5 (2,22) days with a length of stay per TBSA of 1 (1,2). Approximately 58% of patients required a surgical procedure. Of these, 8 had documented graft loss or failure while 7 did not. In those who experienced graft loss, median TBSA was higher [31.4 (7.8,57.5) vs. 10 (2.5,15);  $p = 0.269$ ] and they required more surgeries [7 (1,9) vs. 1 (1,3);  $p = 0.104$ ]. A potential total revenue of \$428,280 was found. Additional cost data are provided in Table 1.

**Conclusions:** There was a high level of compliance with criteria for use, with some opportunities for improvement. Over 40% of patients who received collagenase for partial thickness burns were treated non-operatively, supporting its likely benefit, despite the cost. The potential exists for significant revenue for the health-system.

727 **Novel silver based dressing technique for Steven Johnson Syndrome and other cutaneous exfoliative conditions**

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**Introduction:** Exfoliative skin conditions such as Steven Johnson Syndrome (SJS)/toxic epidermal necrolysis (TEN) and other significant drug related reactions are complex medical conditions that provide a challenge to the burn surgeon, especially with regards to local wound care. Various modalities of wound care require frequent dressing changes; however, these changes put the patient through significant pain and potentially harmful experiences that could lead to worse skin exfoliation, scarring and pigmentation changes. As part of our burn unit, we have created a dressing utilizing silver impregnated nylon sheets that limits the amount of wound care performed and therefore the amount of potential exfoliative damage.

**Methods:** We have employed this means of dressing in all our Steven Johnson patients with significant open or blistered areas. We performed a retrospective analysis looking at our patients who were admitted with Steven Johnson Syndrome/toxic epidermal necrolysis or other exfoliative skin disorder over the last 7 years. We had 52 patients who ranged from having 2-100% of skin involved with significant blistering or exposed areas. The suit is made specific to the patient as each area is measured and the silver sheets are formed to the patient and secured in place. The silver sheets are saturated with sterile water and rewet with saline every four hours and changed every three days.

**Results:** By utilizing these silver-based dressings, we have limited the amount of dressing changes and concomitant pain for patients while also limiting skin infections to only 1 out of our 52 patients. For blisters on the face, a local antibiotic ointment was used; and once the skin lesions had healed, a moisturizing lotion was used.

**Conclusions:** Steven Johnson Syndrome and other exfoliative skin conditions require significant wound care. By minimizing dressing changes, one can lessen the pain to patients and by utilizing dressings that are infused with silver, one can also potentially decrease the risk for infection as was seen in our patient population.