

Management of Skin Tears in the Elderly using 3M™ Tegaderm™ Absorbent Clear Acrylic Dressing

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Introduction

The skin of the elderly is at high risk for skin tears. Clinically, these wounds are defined as traumatic wounds or lacerations, and usually occur on the extremities as a result of friction and/or shear. There are numerous aging factors that contribute to this phenomenon, few of which can be controlled. Skin tears are generally not life-threatening, but cause considerable discomfort, predispose individuals to infection, and are costly to treat due to frequency of occurrence and prolonged healing time of aged skin. Treatment has yet to be standardized and is often complicated by fragility of aged skin. Generally the principles of moist wound healing apply in combination with strategies to handle drainage. Care must also be applied to avoid further trauma to the skin.^{1,2}

Current Clinical Approach

This facility has standardized first line skin tear treatment with Tegaderm™ Absorbent Clear Acrylic Dressing, a moisture retentive dressing composed of an absorbent acrylic polymer pad encased between two layers of transparent film, in combination with an 3M™ Cavilon™ No Sting Barrier Film, an alcohol-free skin protectant. This combination provides a moist and protective environment for healing, while controlling drainage and minimizing damage to the fragile peri-wound skin. Additionally, the ability to monitor the wound through the dressing allows for extended wear time. Two case studies are presented documenting this treatment approach. Case study 2 also includes episodic use of 3M™ Tegaderm™ Ag Mesh Dressing with Silver placed under the Tegaderm™ Absorbent dressing. Prior treatment of skin tears at this facility included the use of antibiotic ointment and gauze dressings.

The table provided below compares the dressing characteristics for the two different treatment modalities.

Dressing Characteristics	Tegaderm™ Absorbent Clear Acrylic Dressing	Antibiotic Ointment & Gauze Dressing
Absorbent	Yes	No
Able to monitor wound	Yes	No
Easy to apply	Yes	Yes
Extended wear time	Yes	No
Barrier to contaminants	Yes	No
Moist wound environment	Yes	No
Non-traumatic dressing removal	Yes	No

Case Study 1

Patient History:

A fragile 85-year old female resident of a long-term care facility, (LTC), was admitted for rehabilitation s/p hip fracture sustained from a fall. Upon admission she presented with generalized weakness, difficult ambulation, and anticoagulant therapy. Areas of ecchymotic discoloration were noted on all extremities. Past medical history included: allergies to latex and adhesive tape, hypertension, placement of pacemaker for syncope, CVA, COPD, hip replacement and skin tears as a result of frequent falls.

Her age, history of previous falls, skin condition and impaired mobility are consistent with known risk factors for skin tear development.³

Fifteen days after admission, during a transfer from a wheelchair, this resident sustained a Class III⁴ skin tear on her lower extremity, (**Wound 1**). Seven days later she sustained a Class II skin tear⁴ on the right forearm, (**Wound 2**), as a result of contact within a doorway. Moderate serosanguineous drainage was noted from both wounds.

Wound 1: Skin tear located on lower extremity



Day 1:
Skin tear measurements: 1.3 cm x 1.5 cm & 1.0 cm x 0.4 cm.



Day 7:
Tegaderm™ Absorbent dressing intact, wound drainage contained.



Day 7:
Tegaderm™ Absorbent dressing removed without trauma to wound bed or periwound tissue.



Day 7:
Skin tear measurements: 0.7 cm x 1.5 cm & 0.3cm x 0.5 cm. Wound improvements noted.
Tegaderm™ Absorbent dressing applied.



Day 14:
Tegaderm™ Absorbent dressing applied.



Day 21:
Dressing removed, skin tear healed.

Wound 2: Skin tear located on upper extremity



Day 1:
Skin tear measurements: 4.0 cm x 0.2 cm.
Tegaderm™ Absorbent dressing applied.



Day 7:
Dressing changed. Skin tear healing,
measurements 1.5 cm x 0.1 cm.



Day 14:
Tegaderm™ Absorbent dressing removed.
Skin tear healed.

Clinical Outcomes:

- All dressings remained in place for seven days.
- Wound assessment and wound bed preparation, including application of Cavilon No Sting Barrier Film to the periwound skin, was performed with each dressing change.
- The clinician was able to monitor skin tear through the dressing avoiding unnecessary dressing changes.
- Tegaderm™ Absorbent Clear Acrylic dressing provided a moist wound healing environment.
- Total healing time of Wound 1 occurred within 21 days.
- Total healing time of Wound 2 occurred within 14 days.
- There were no reports of adverse events, residue, adhesive trauma, or dressing adherence to the wound bed.

Case Study 2

Patient History:

A frail, confused, 85 year old female was admitted to a long-term care (LTC) facility with diagnosis of fractured vertebrae and retinal hemorrhage secondary to frequent falls, osteoporosis, and hypertension. Bilateral lower extremity edema was noted upon admission. She required maximum assistance of two staff for transfers. Her past medical history included: history of falls, L1 compression fracture with Kyphoplasty, dysphasia and PEG tube placement. In addition to the above, her age, complex medical history, impaired mobility, polypharmacy, and history of falls placed this patient at high risk for skin tear development.³

Approximately one month after admission to LTC this patient sustained a traumatic Class II skin tear⁴ presenting as a draining hematoma, creating a potential risk for infection. In addition to using the standardized treatment protocol 3M™ Tegaderm™ Ag Mesh Dressing with Silver was applied prior to application of Tegaderm™ Absorbent dressing prophylactically for increase infection risk. (see photos below).

Four weeks after the initial injury this patient developed a urinary tract infection, and re-injured the original skin tear. She again was treated with the standardized treatment protocol and Tegaderm™ Ag Mesh dressing. Total healing was achieved within twelve additional days.



Day 1:
Skin tear measurements: 1.0 cm x 1.5 cm.



Day 1:
Tegaderm™ Ag Mesh dressing applied under Tegaderm™ Absorbent dressing.



Day 14:
Dressing intact. Skin tear nearly healed. Measurements: 0.1 cm x 0.1 cm.



Day 28:
Traumatic re-injury at same site measuring 0.5 cm x 0.7 cm. Patient compromised with UTI, Tegaderm™ Ag Mesh dressing used prophylactically for 1 dressing change.



Day 40:
Skin tear healed.

Clinical Outcomes:

- Tegaderm™ Absorbent dressing remained in place, dressing change performed every seven days.
- Wound could be monitored through the dressing, avoiding unnecessary dressing changes.
- Tegaderm™ Absorbent dressing provided a moist wound healing environment.
- Total healing of lower extremity wound, including re-injury, was completed within 40 days.
- There were no reports of adverse events, residue, adhesive trauma, or dressing adherence to the wound.

Conclusion

Tegaderm™ Absorbent Clear Acrylic Dressing was effective in meeting the goals for the treatment of skin tears, including decreased frequency of dressing changes, protection of fragile periwound skin surrounding the skin tear, wound visualization, and moist wound healing. The dressing provided a protective, moist wound environment for the management of skin tears. The transparent properties of the dressing allowed for monitoring the wound without the need for frequent dressing changes. In addition extended wear time of Tegaderm™ Absorbent dressing, in combination with Cavilon No Sting Barrier Film, helped to minimize the potential for damage to peri-wound skin while skin tears healed.

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70-2010-7186-0 BLG