

MEDICAL CENTER

Protocol: Friction Burn (AKA Road Rash) Management

Category: Clinical Practice
 Approval Date: 9/17/19 (CMT)
 Review Date: Fall 2021

| Applicable to | | | | | | | |
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| <input checked="" type="checkbox"/> VUH | <input checked="" type="checkbox"/> VCH | <input type="checkbox"/> DOT | <input type="checkbox"/> VMG Off-site locations | <input type="checkbox"/> VMG | <input type="checkbox"/> VPH | <input type="checkbox"/> Other | |
| Team Members Performing | | | | | | | |
| <input type="checkbox"/> All faculty & staff | <input checked="" type="checkbox"/> Faculty & staff providing direct patient care or contact | <input checked="" type="checkbox"/> MD | <input checked="" type="checkbox"/> House Staff | <input type="checkbox"/> APRN/PA | <input type="checkbox"/> RN | <input type="checkbox"/> LPN | |
| <input type="checkbox"/> Other: | | | | | | | |
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I. Population:

- A. Inclusion: Trauma patients admitted to a trauma service with road rash meeting exclusion criteria
- B. Exclusion: Burn consult should be placed for these patients
 - 1. Total body surface area (TBSA) \geq 10%
 - 2. Injury overlying an open joint (if not managed primarily by an orthopedic service or plastic surgery)
 - 3. Concern for burn as an infectious source
 - 4. >5% TBSA full thickness friction burns (in total)
- C. Exemptions: Isolated large or complex soft tissue defects or lacerations from trauma or wound complications not involving bones are a plastic surgery consult, see VUMC SDL for details.
- D. NOTE: if the patient is going to be discharged from the Emergency Department or if they are going to be admitted to a non-trauma service, a burn consult should be placed.

II. Indications:

Trauma patient admitted to a trauma service with road rash meeting inclusion/exclusion criteria

III. Definitions:

- A. % TBSA: Percentage of a total body surface area of burn

IV. Assessment:

- A. Physical Exam: Full physical examination
- B. Documentation: Full physical examination detailing % TBSA, location of burns, and depth in admission or progress note

V. Anesthesia:

None. It is imperative that a multi-modal approach should be taken to treat acute pain and procedural pain. It is recommended that the patient be started on a combination of Tylenol, ibuprofen, gabapentin, and oxycodone PRN if there are no contraindications. Ultimately, pain management will be at the discretion of the primary team.

VI. Goal(s) of Procedural Intervention:

Support wound bed healing and minimize scarring.

VII. Procedure:

A. Equipment

1. Nonsterile gloves
2. Clean wash cloths
3. 4x4 kerlix fluffs
4. Hibiclens or dial soap and clean water
5. Wound care supplies (-choose one option per specific wound care guidelines):
 - a. Bacitracin, xeroform gauze, kerlix gauze. Note: may substitute xeroform for Adaptic if xeroform not available
 - b. Silvadene cream, xeroform gauze, kerlix gauze
 - c. Saline, kerlix gauze, ABD pad (may use exu-dry pad). Please do not use ABD pads for those with a Latex allergy, as it contains latex.

B. Procedure:

1. Don personal protective equipment
2. Gentle cleansing of wounds with hibiclens or dial soap and fresh clean water
3. Daily wound care (3 options)
 1. For most road rash wounds, bacitracin and xeroform gauze are appropriate
 2. For road rash wounds that have a significant amount of asphalt debris imbedded in the wound, apply Silvadene cream and xeroform gauze at first wound care and then transition to bacitracin and xeroform gauze on hospital day 2.
 3. For road rash wounds with tissue loss creating a cavity, use saline soaked kerlix followed by an ABD pad to create a wet-to-dry dressing.

VIII. Complications:

Infection, bleeding, poor wound healing, scarring, retained debris and decreased mobility or diminished function.

IX. Special Considerations:

- A. Therapy Consults: OT consults should be placed for any patient with friction burns above the waist, including the face and upper extremities to encourage mobility and stretching. PT consults should be placed for patients with friction burns of the lower extremities.
- B. Follow-up: All patients with friction burns should be scheduled in the burn clinic within 1 week of hospital discharge.

X. References

Al-Qattan M. M., Al-Zahrani K., Al-Shanawani B., Al-Arfaj N. (2010). Friction burn injuries to the dorsum of the hand after car and industrial accidents: classification, management, and functional recovery. *Journal of Burn Care & Research*, 31(4), 610-615. <https://doi.org/10.1097/BCR.0b013e3181e4d6b9>

Hakim, S., Ahmed, K., El-Menyar, A., Jabbour, G., Peralta, R., Nabir, S., ... Al-Thani, H. (2016). Patterns and management of degloving injuries: a single national level 1 trauma center experience. *World Journal of Emergency Surgery*, 11(35). doi:10.1186/s13017-016-0093-

Latifi, R., El-Hennawy, H., El-Menyar, A., Peralta, R., Asim, M., Consunji, R., & Al-Thani, H. (2014). The therapeutic challenges of degloving soft-tissue injuries. *Journal of Emergencies, Trauma, and Shock*, 7(3), 228–232. doi:10.4103/0974-2700.136870