

# Case Series: Road Rash Management by WCC

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## Introduction

Road rash is a type of friction burn that results from the shearing of skin across a surface, predominately after a motorcycle or motor vehicle collision. Most road rash injuries are less than 10% TBSA (total body surface area) & do not require surgical management.<sup>1</sup> Instead, these partial thickness wounds and some small full thickness injuries can be adequately managed with bedside wound care. Traditionally, management of road rash involved the use of Silver Sulfadiazine Cream (SSD) as an antimicrobial agent. In this case series, honey-based products were utilized for their antimicrobial properties, as well as their increased wear time and debridement properties.

## Purpose

To guide providers in knowing what is appropriate for wound care clinicians and bedside nursing to manage without surgical intervention. All patients require a unique approach and ongoing assessments as the wound evolves. Additionally, to determine if honey-based products were as effective or more than the traditionally used agent of SSD.

## Background

4 patients were included with the following characteristics:

Patient 1: 19 y.o. Male, no PMHX, s/p MVC with ejection. Pt presented with partial thickness road rash to back, with small area of full thickness injury.

Patient 2: 39 y.o. Male, no PMHX, s/p MCC. Pt presented to partial thickness road rash to left arm. Extensive, full thickness injuries managed surgically by burn team.

Patient 3: 62 y.o. Male, no PMHX, s/p MCC. Pt presented with partial thickness road rash to right upper extremity.

Patient 4: 32 y.o. Male, no PMHX, s/p MCC. Pt presented with partial thickness road rash to bilateral upper extremity, lower extremity, and trunk.

## Methods

Patient 1: WCC assessment of patient, application of honey on day 0. Repeat bedside debridement's twice weekly with application of honey and foam dressing until wound re-epithelialized on day 33

Patient 2: Initial bedside debridement with application of honey on day 0. Repeat bedside debridement's with application of honey and gauze dressing until wound re-epithelialized on day 15.

Patient 3: Initially treated with SSD by burn team. Transitioned to honey on day 0 when evaluated by WCC, seen twice weekly for debridement, and honey and gauze dressing until wound re-epithelialized on day 11.

Patient 4: WCC assessment and bedside debridement while in ED. Treated with honey on day 0, pt discharged home from ED. Pt f/u in outpatient wound clinic once weekly until entire wound re-epithelialized on day 16.

## Discussion

Road rash can be managed at the bedside by WCCs in conjunction with nursing partners to decrease OR time, improve patient satisfaction, and accelerate the wound healing process. Traditionally all road rash patients managed by burn team, but in this study partial thickness road rash and small full thickness road rash effectively managed by WCC at the bedside via bedside debridement and application of honey-based dressings.

## Conclusion

Beside management of partial thickness and small full thickness road rash can be effectively performed by WCC and bedside nursing. Every other day dressing changes with honey-based dressings increases patient satisfaction and compliance. Twice weekly bedside debridement by WCC accelerates the wound healing process and decreases the patient's length of stay. Bedside management of road rash by a certified wound care clinician further enables Burn team partners to solely focus on surgical management of full thickness injuries.

## References

Perkins LA, Munter S, Johnston W, et al. Friction Burns: Defining the Rub of Road Rash After Motorcycle Trauma. J Burn Care Res. 2025;46(1):1-5. doi:10.1093/jbcr/irae181

