

Discharge Against Medical Advice Risk Factors in Burn Patients

Alexis Knutson¹, Alyssa Meyer², Lauren Powell, MD³, Melaine McCormick, MD⁴, Alex Lacey, MD⁵

(1) Medical School (2) Department of Plastic Surgery
University of Minnesota, Minneapolis, MN
*Correspondence: powel727@umn.edu

INTRODUCTION

Discharging against medical advice (AMA) can have significant, detrimental effects on burn patient outcomes. Prior studies in non-burn injured patients have found that patients who leave AMA have a higher risk for adverse 30-day and 12-month outcomes, as well as higher hospital readmission rates and healthcare expenditures, in comparison to patients who are discharged to home in a conventional manner (1,2). The goal of this study is to identify risk factors for burn patients who left AMA and suggest solutions to mitigate these factors.

METHODS

- Data collection from Level 1 trauma center from 2007-2022
- Identified patients through AMA patient discharge codes
- Demographic information was collected, including: age, sex, past medical and substance use history, insurance status, and language barriers.
- Additional information was recorded, including: time to presentation, mechanism of injury, total body surface area (TBSA) burned, burn depth, number of ICU days, length of stay, treatment, consultant teams, readmission and/or known complications after leaving the hospital.
- Descriptive statistics were used to determine potential trends within this patient population.

RESULTS

- 37 patients discharged AMA over 15 years (2007-2022)
- Average age was 37-years-old, (range 2-75) (Fig. 1)
- Male 64.9%, Female 35.1%
- Substance abuse history present in 70.2%
- 48.6% with psychiatric diagnosis (excluding substance use)
- Documented homelessness in 24.3%
- 51.4% had Medicaid or State health insurance, 29.7% had no insurance, and 18.9% had private insurance
- Most common injury: frostbite, flame, scald (Fig. 2)
- 40.5% sustaining a $\leq 1\%$ TBSA burn (range $<1-23\%$)
- 83.7% had social work and/or case management involved; 100% if the length of admission > 1 day
- 48.6% returned to the ED within 2 weeks (Table 1)

Figure 1. Discharge AMA by Age

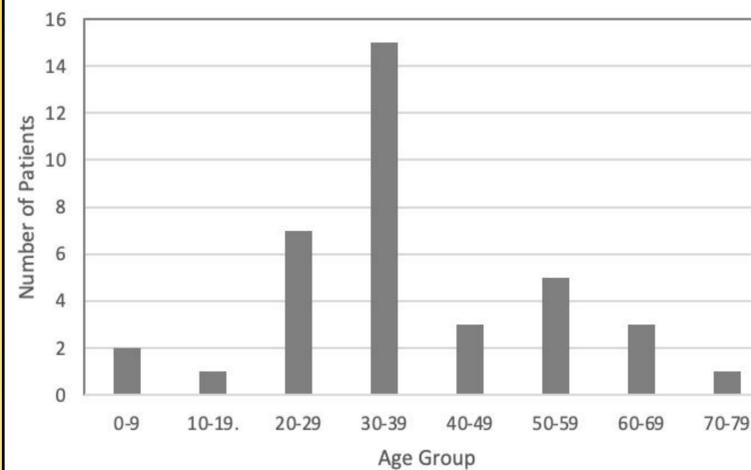


Figure 2. Mechanism of Injury

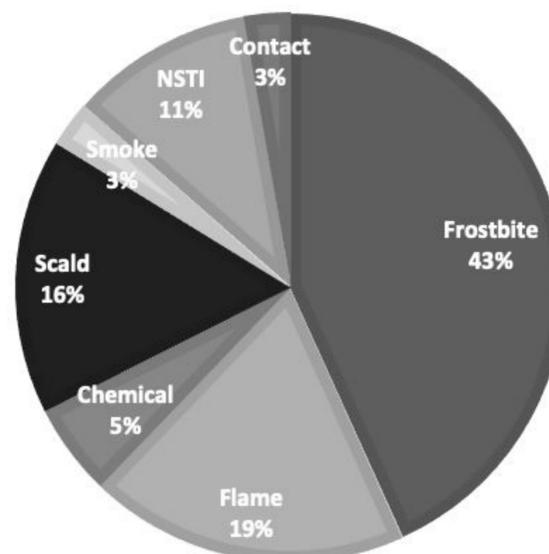


Table 1. Association between receiving burn care supplies and return to ED

	Returned to ED <2 weeks	Did not return to ED <2 weeks	Total
Received supplies at discharge	8	9	17
No supplies at discharge	10	10	20
Total	18	19	37

CONCLUSION

Leaving AMA is associated with greater patient morbidity, including higher rates of hospital readmission and subsequently, higher healthcare expenditures. This study found that burn patients leaving AMA were more likely to suffer from small ($<1\%$ TBSA) burns, often related to frostbite injuries. These patients had a significant substance abuse and psychiatric history, and the majority had Medicaid or state health insurance. Recruiting interdisciplinary care members, including social work, psychiatry, and addiction medicine, early may help these patients by encouraging completion of their hospital care and setting up crucial follow-up care.

DISCLOSURES

Authors have no relevant financial relationship that may cause potential conflict of interest related to this abstract.

References

- (1) Mitchell JE, et al. Profile of Patients Hospitalized for Heart Failure Who Leave Against Medical Advice. *Journal of Cardiac Failure*. 2021 July; 27(7):747-755.
- (2) Kumar N. Burden of 30-Day Readmissions Associated With Discharge Against Medical Advice Among Inpatients in the United States. *American Journal of Medicine*. 2019 June; 132(6):708-717.



UNIVERSITY OF MINNESOTA

Driven to DiscoverSM