



The William Randolph Hearst Burn Center

# Homeless and Burned – a Retrospective Analysis of an Especially Challenged Patient Population

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## Introduction

The undomiciled burned patient presents more challenges to the burn team with regards to safe disposition.

Discharge planning is complicated by the lack of a safe, clean environment to perform requisite wound care, thus prolonging hospital stays.

Limited current existing literature with regards to burn injuries in the undomiciled.

High risk population with limited discharge resources with respect to safe return and ongoing wound care.

## Aim

Analyze the homeless patients admitted to a major urban burn center to better help identify trends and characteristics that could inform development of support services for this unfortunate population.

## Methods

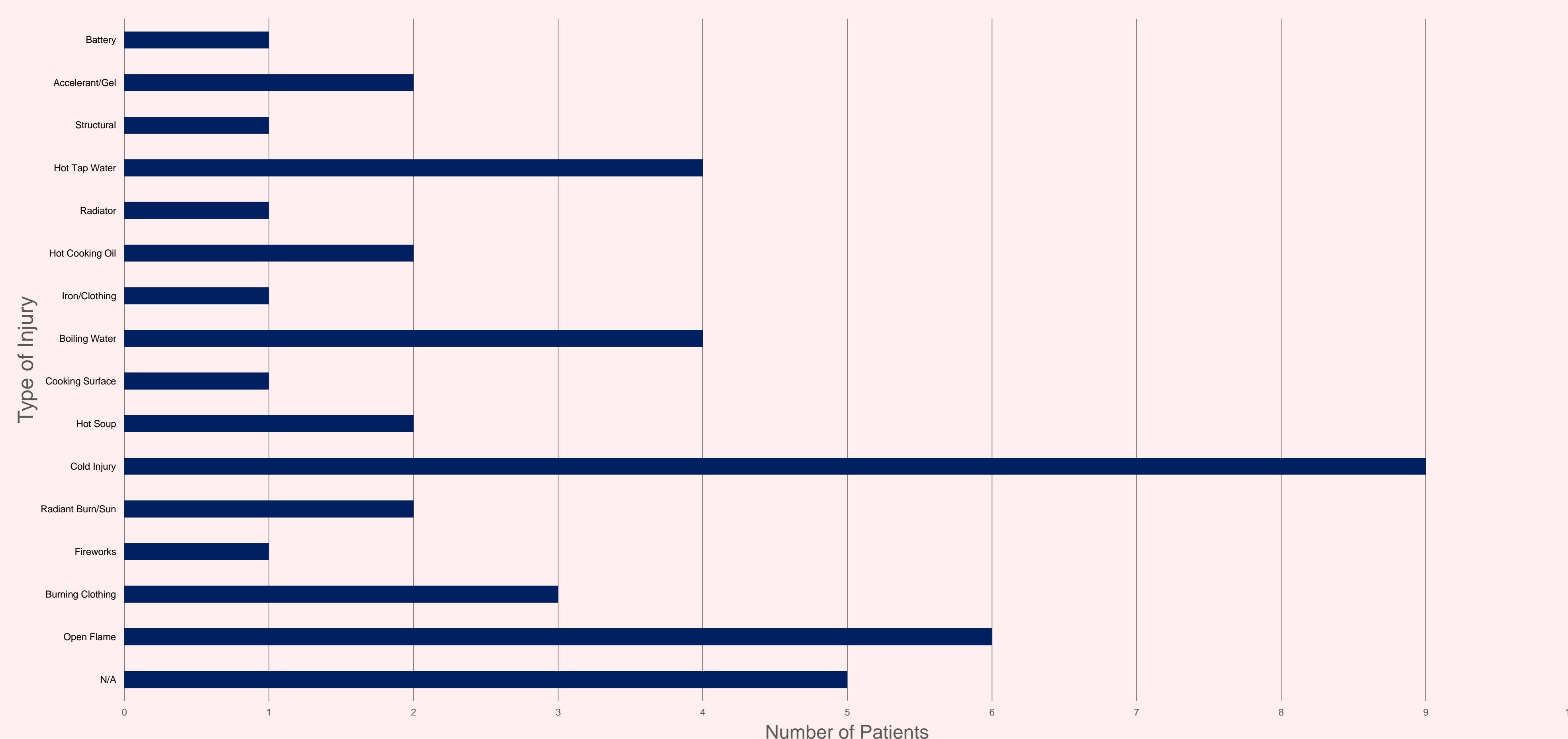
Demographic and clinical data from inpatients was collected from a single urban ABA verified burn center over a 3 year period between 1.2016 and 12.2018. Simple descriptive statistical analysis was performed.

## Results

1985 patients were admitted over the 3 year period. 48 homeless patients were identified (2.4%). The average age of this population was 39.8±16.8 years (range 3 months to 63 years old). There were 5 children (10.4% of the homeless cohort) in this population (ranging from 3 months to 4 years of age). Only 2 homeless burn inpatients were greater than 60 years of age (2% of the homeless cohort).

There were 15 females (31%) and 33 males (69%).

Cause of Burns Among Homeless Population

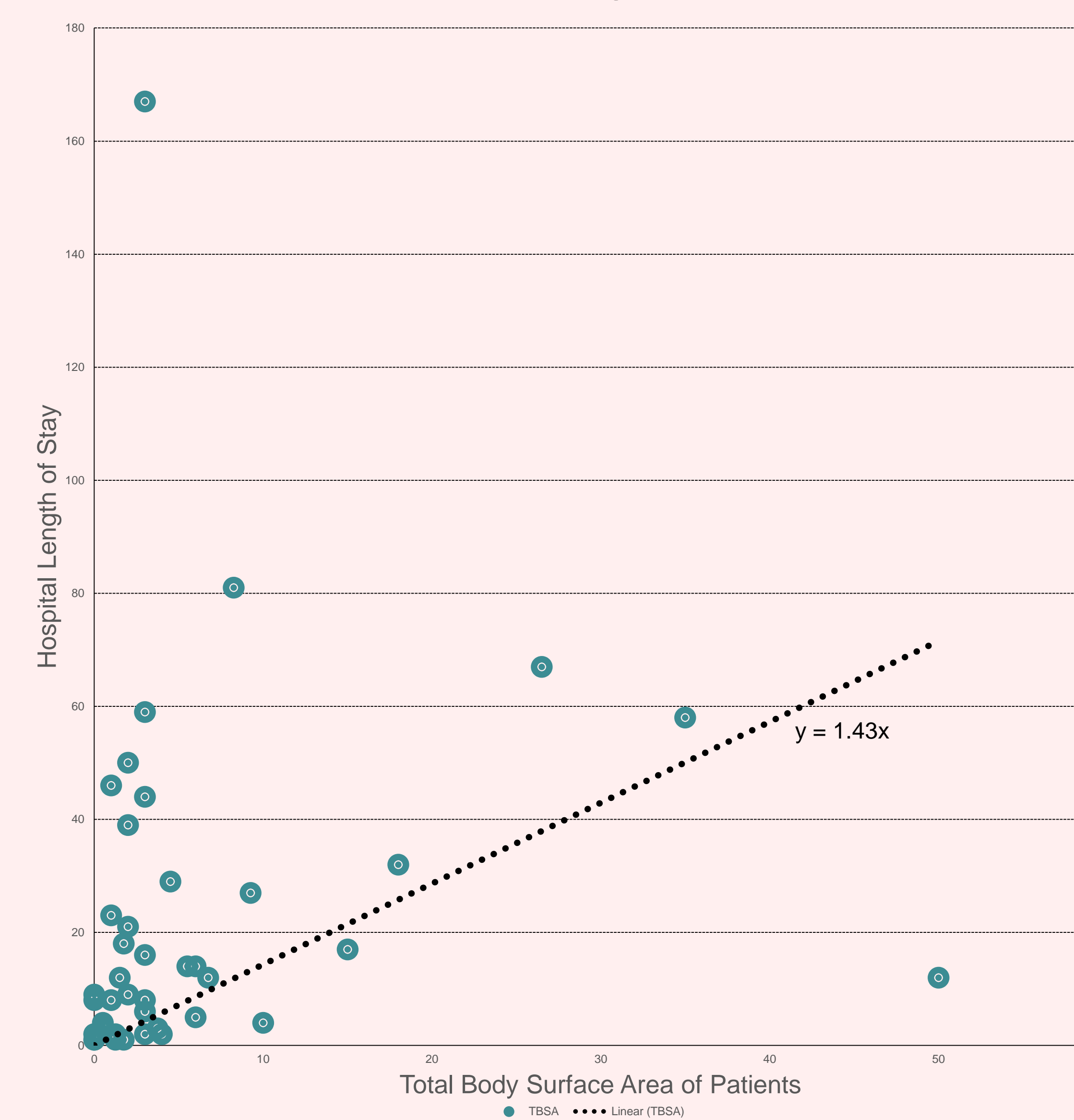


## Results Continued

The mean TBSA was 5.79±9.9%. The average length of hospital stay was 23.2±29 days. 27 of the 48 patients (56%) required operative treatment.

The 3 most common etiologies of skin injury were flame burns (13%), scald burns (19%), and cold injury (20%). The vast number of patients (39 out of 48, 81%) were discharged back to “their previous condition” (i.e. homeless shelter or the streets). 1 patient was discharged to prison, and 8.3% left against medical advice. There was 1 mortality in this group. Only 12.5% had an extended hospital length of stay due to medical reasons.

Affect of Total Body Surface Area on Hospital Length of Stay



## Conclusion

Contrary to widespread assumptions about the homeless being overwhelmingly male and adult, a significant percentage of the homeless burn patients were female with a percentage of patients being pediatric as well. The length of stay was significantly longer for most patients given the relatively small average size of burn injury. Cold injury was more significant etiology in this population compared to the overall burn population.

## Applicability to Practice

This analysis of the undomiciled burn inpatient at a single urban burn center will help better describe this especially challenging population and help focus social support and discharge planning resources for this group.

## References, Funding and Disclosure

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 Mackelprang JL, Graves JM, Rivara FP. Homeless in America: injuries treated in US emergency departments, 2007-2011. *Int J Inj Contr Saf Promot.* 2014;21(3):289-97.

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