



DISPARITIES IN DISCHARGE DISPOSITION

A burn model systems database study

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INTRODUCTION

- 3-30% of patients are discharged to inpatient rehabilitation
- Rehabilitation improves functional outcomes after burn injury
- Previous work suggests racial disparities in discharge to rehabilitation

METHODS

- Retrospective cohort study
- Burn Model Systems database, 1994-2019
- Patients:
 - Survived to discharge
 - Known disposition
- Multinomial GEE used to estimate risk-adjusted association between race/ethnicity and discharge disposition

RESULTS

- N=4395 at 5 burn centers
- 79% discharged **home**
- 12% discharged to **inpatient rehabilitation**
- 6% discharged to **SNF**

Factors associated with increased discharge to rehabilitation:

- Increasing age
- Increasing burn size
- Flame burns
- Burn center

CONCLUSION

- No racial/ethnic disparities identified in discharge to inpatient rehabilitation
- Inpatient rehabilitation utilization varies widely by burn center

FUTURE DIRECTIONS

- Understand patients most likely to benefit from inpatient rehabilitation
- Characterize need for inpatient rehabilitation beds
- Identify system-level barriers that may preclude discharge to rehabilitation when indicated

There is **no association** between **participant race** and discharge to **inpatient rehabilitation** after burn injury

Discharge to inpatient rehabilitation varies by **burn center**



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PARTICIPANT & INJURY CHARACTERISTICS

Age group	
<18	1095 (24)
18-64	3100 (68)
>64	359 (8)
Gender, N (%)	
Male	3251 (71)
Female	1303 (29)
Median TBSA (IQR)	15 (22)
Inhalation injury, N (%)	564 (12)
Insurance status, N (%)	
Medicare	493 (11)
Medicaid	716 (16)
Private insurance	1305 (29)
Workers	504 (11)
Self pay or indigent	433 (10)
Burn mechanism	
Flame	2723 (61)
Scald	640 (14)
Other	1134 (25)

FACTORS ASSOCIATED WITH DISCHARGE TO REHABILITATION

	Odds ratio (95% CI)
Race	
White	Ref
Black	1.14 (0.81-1.60)
Asian	1.29 (0.73-2.29)
Hispanic	0.83 (0.58-1.20)
Other	0.49 (0.13-1.78)
Age (per year increase)	1.03 (1.01-1.04)
TBSA (per % increase)	1.04 (1.02-1.06)
Burn year (per year increase)	1.08 (1.01-1.15)
Burn mechanism	
Flame	Ref
Scald	0.64 (0.46-0.89)
Other	0.53 (0.34-0.81)
Site	
A	Ref
B	2.56 (2.14-3.06)
C	1.69 (1.18-2.42)
D	0.04 (0.02-0.08)
E	2.18 (1.22-3.89)
Insurance	1.36 (0.95-1.96)

