



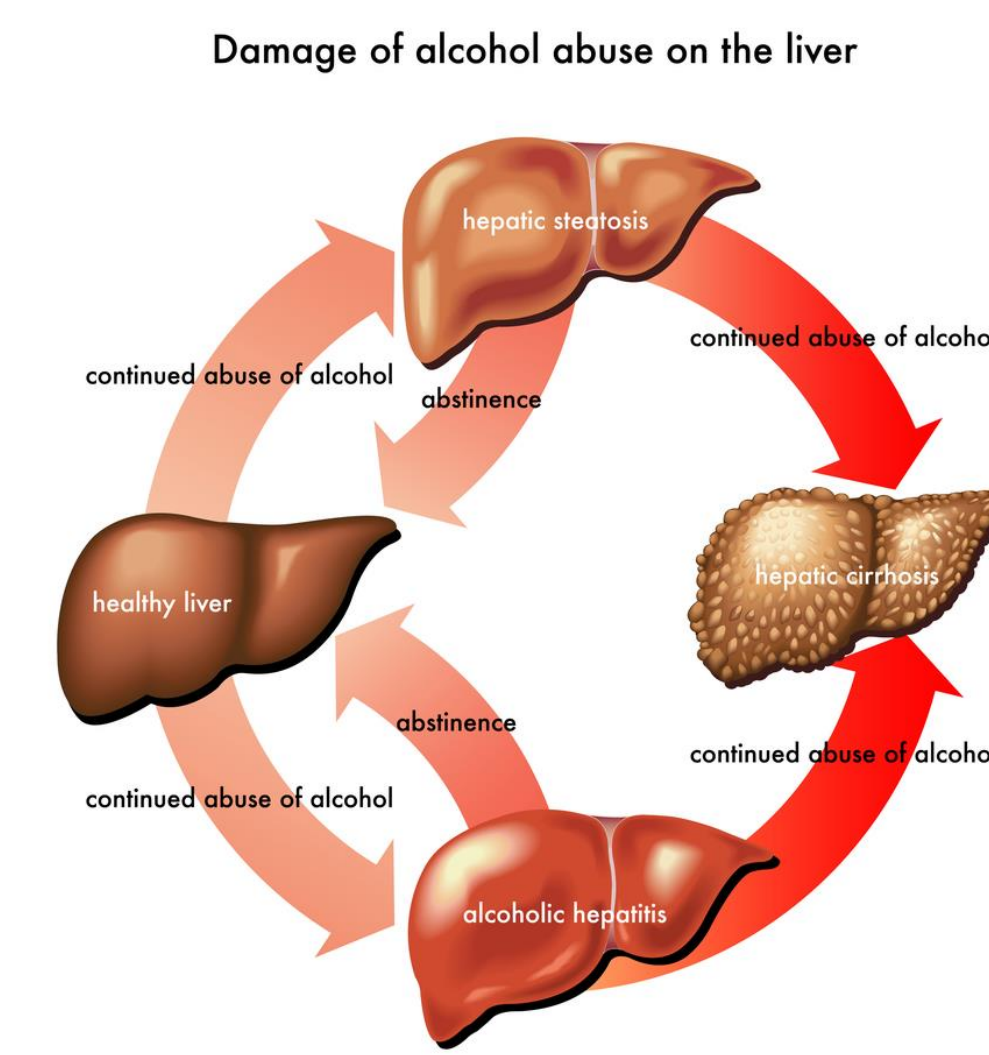
Unique Aspects of Alcohol-Associated Hepatitis (AH) in Unhoused versus Housed Patients



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Background

- Alcohol-associated hepatitis (AH) is a severe consequence of alcoholic liver disease and is associated with substantial morbidity and mortality
- Unhoused individuals may be more vulnerable due to lack of access to health care or presence of other comorbidities



Objective

To evaluate the association between housing status and severity of AH at presentation.

Methods

- Single center retrospective cohort of patients presenting with a first episode of AH (per NIAAA criteria) in a safety-net hospital from 2017-2021 in collaboration with USC Research Center for Liver Diseases
- Patients with other potential causes for liver injury such as shock and ingestion were excluded
- Admission demographic, clinical, and laboratory data were collected
- Outcome: MELD-Na at admission
- Univariate and multivariable linear regression used to evaluate if MELD-Na is associated with:
 - Unhoused status
 - Days since last drink
 - Test interaction between unhoused status and days from last drink
- Evaluate factors associated with MELD-Na among the unhoused sub-population.

Results

Table 1. Characteristics at Admission

Demographics	Housed 83.2%(N=99)	Unhoused 18.6% (N=20)	P Value
Age, median (IQR)	43.4 (36.8-51.3)	43.0 (36.8-50.8)	0.86
Marital Status: Single % (N)	70.7 (70)	94.4 (17)	0.04
Days Since Last Drink	4	1	0.03
MELD-Na	23	22	0.48
Female, % (N)	18.2 (18)	10.0 (2)	0.52
Hispanic % (N)	83.5 (81)	84.2 (16)	1.00
Hypertension % (N)	12.1 (12)	5.0 (1)	0.69
Hyperlipidemia % (N)	1.0 (1)	5.0 (1)	0.31

Characteristics including age, sex, ethnicity, and comorbidities were similar across both groups.

Table 2. Univariate Associations with MELD-Na at admission

Characteristics	Coefficient	95 % Confidence Interval	P Value
Total Study Population			
Unhoused vs Housed	-1.8	-6.8 to +3.2	0.48
Hispanic vs non-Hispanic	-4.4	-9.5 to +0.74	0.09
Day Since Last Drink	0.2	0.1 to 0.3	0.01
Among Unhoused only			
History of Substance Abuse	+9.4	+0.09 to +18.8	0.048

- Mean MELD-Na was lower for unhoused vs housed persons and lower in Hispanics vs non-Hispanics, although statistical significance was not achieved.
- Among the unhoused, mean MELD-Na was 9.4 points higher in those with substance use vs without

Table 3. Effect of Substance Use on Admission MELD-Na amongst the unhoused

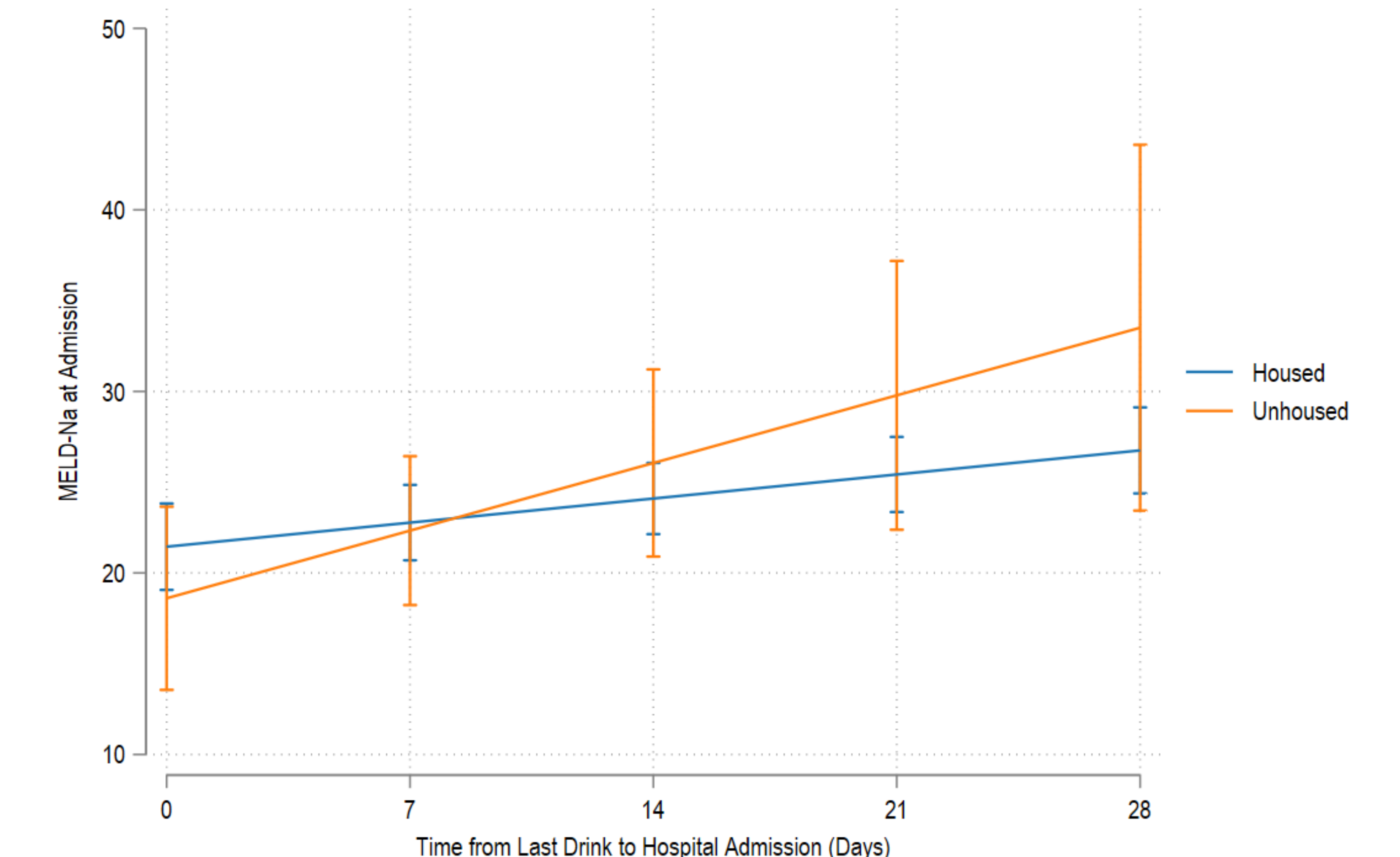
Among Unhoused*	Admission MELD-Na	Confidence Interval
Substance Abuse	30.0	23.9-35.2
No Substance Abuse	20.1	16.9-23.4

*Adjusted for time to last drink

- Among unhoused, the adjusted mean admission MELD-Na was 9.95-fold (95%CI: 3.4-16.5) higher in those with substance use vs. without (p=0.005).
- Mean MELD-Na was 0.4 units lower for unhoused vs housed, adjusted for Hispanic ethnicity and days since last drink.

Results

Figure 1: MELD-Na on admission for each additional day since last drink in housed vs unhoused population



- As days since last drink increased, mean MELD-Na increased more dramatically for unhoused vs housed (p=0.13) adjusted for Hispanic ethnicity

Discussion

- Unhoused persons with AH appear to present earlier in the disease course, reflected by lower admission MELD-Na and fewer days since last drink, although those with substance use are at higher risk of severe disease at presentation.
- Understanding the factors contributing to initial presentation of AH may aid in optimizing inpatient management.

References

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