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PURPOSE / OBJECTIVES

- The prevalence of metabolic-associated steatohepatitis (MASH) continues to rise in the United States and has emerged as an increasingly common etiology of acute-on-chronic liver failure (ACLF).
- Prior studies have reported racial differences in the epidemiology of MASH, with Hispanics having the highest prevalence and worse outcomes, and African Americans having the lowest prevalence.
- However, despite these observations, the racial disparities in outcomes of ACLF secondary to MASH have not been fully described.

MATERIAL & METHODS

- The National Inpatient Sample database (2016-2022) was used to identify adult (≥ 18 years old) patients with ACLF secondary to MASH.
- ACLF was defined as the presence of any 2 organ failures (hepatic coma, shock, respiratory failure, and acute kidney injury/hemodialysis).
- Patients were stratified based on race into White, African Americans, Hispanics, Asian/Pacific Islanders, and Native Americans.
- Outcomes assessed were in-hospital mortality, non-home discharges, palliative care (PC) utilization, and liver transplantation (LT), length of stay and total hospitalization charges.
- Multivariate regression analysis was used to assess the impact of race on outcomes.

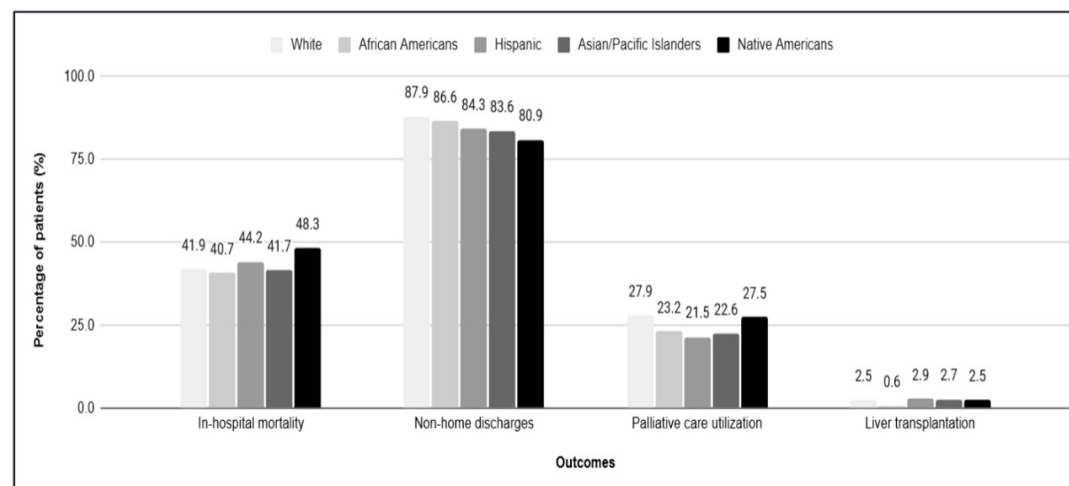


Figure 1. Bar chart comparing outcomes among patients with ACLF secondary to MASH, stratified by race.

Outcomes	Adjusted odds ratio	95% Confidence interval	p-value
In-hospital mortality			
African Americans vs Whites	0.99	0.91 - 1.08	0.93
Hispanics vs Whites	1.12	1.04 - 1.21	0.003
Asian/Pacific Islanders vs Whites	1.01	0.86 - 1.18	0.93
Native Americans vs Whites	1.28	0.99 - 1.67	0.06
Non-home discharges			
African Americans vs Whites	1.07	0.94 - 1.22	0.29
Hispanics vs Whites	0.86	0.77 - 0.96	0.009
Asian/Pacific Islanders vs Whites	0.75	0.60 - 0.93	0.01
Native Americans vs Whites	0.71	0.50 - 0.99	0.05
Palliative care utilization			
African Americans vs Whites	0.82	0.74 - 0.90	<0.001
Hispanics vs Whites	0.72	0.66 - 0.79	<0.001
Asian/Pacific Islanders vs Whites	0.69	0.58 - 0.83	<0.001
Native Americans vs Whites	1.04	0.78 - 1.39	0.77
Liver transplantation			
African Americans vs Whites	0.21	0.13 - 0.35	<0.001
Hispanics vs Whites	1.00	0.78 - 1.29	0.98
Asian/Pacific Islanders vs Whites	1.01	0.55 - 1.82	0.98
Native Americans vs Whites	0.78	0.32 - 1.91	0.58
Resource utilization			
Length of stay (days)			
African Americans vs Whites	1.52	0.96 - 2.09	<0.001
Hispanics vs Whites	1.43	0.87 - 1.98	<0.001
Asian/Pacific Islanders vs Whites	1.30	0.31 - 2.29	0.01
Native Americans vs Whites	-0.77	(-2.15) - 0.60	0.27
Total hospitalization charges (\$)			
African Americans vs Whites	6,559.04	-4276.84 - 17394.91	0.24
Hispanics vs Whites	64,980.28	49282.44 - 80678.12	<0.001
Asian/Pacific Islanders vs Whites	61,677.53	24848.43 - 98506.63	0.001
Native Americans vs Whites	-41,981.27	(-64983.84) - (-18978.7)	<0.001

Table 1. Multivariate logistic regression model examining the association between race and clinical outcomes among patients with ACLF secondary to MASH

RESULTS

- A total of 115,040 ACLF hospitalizations secondary to MASH were included in our analysis.
- The racial distribution was noted to be Whites (67.1%), Hispanics (16.8%), African Americans (12.1%), Native Americans (1%), and Asian/ Pacific Islanders (2.94%).
- The in-hospital mortality was highest in the Native Americans (48.3%) and lowest in the African Americans (40.7%).
- PC utilization was highest in the Whites (27.9%) and Native Americans (27.5%). The lowest PC utilization was observed in Hispanics (21.5%).
- Rates of non-home discharge were highest in the Whites (87.9%), while the lowest among Native Americans (80.9%).
- The mean length of stay was highest among African Americans (13 days) and lowest among Native Americans (10.6 days).
- Hispanics had a 12% higher odds of in-hospital mortality than Whites. A trend towards higher mortality was noted in the Native Americans (aOR- 1.28, 95% CI- 0.99-1.67, p-0.06).
- Compared to Whites, African Americans and Hispanics had 18% and 28% lower odds of receiving PC.
- African Americans were noted to have 79% lower odds of receiving LT compared to Whites.

SUMMARY / CONCLUSION

- Significant racial disparities were observed among patients hospitalized with ACLF secondary to MASH.
- These findings highlight profound inequities across the MASH-ACLF care continuum and underscore the need for targeted strategies to improve access, quality of care, and survival.