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INTRODUCTION

- Liver abscess is rare but potentially life-threatening with high morbidity, mortality, and healthcare costs
- Most U.S. data come from single-center studies, limiting generalizability
- Knowledge gaps:
 - National patterns of sepsis complications
 - Sex-based differences in outcomes and interventions
 - Healthcare utilization
- What are the demographics, clinical outcomes, and resource use in patients hospitalized with liver abscess in the U.S.?
- How do outcomes differ by sex?
- Hypothesize that male patients hospitalized with liver abscess will experience worse clinical outcomes

AIM

- Characterize national trends in liver abscess hospitalizations using the largest U.S. dataset to date
- Quantify sepsis incidence
- Assess interventions
- Evaluate resource use
- Compare outcomes between males and females

METHODS

- Retrospective cohort study using NIS 1998-2018
- Cohort - 294,873 hospitalized liver abscess patients after exclusion criteria applied
- Variables analyzed
 - Demographics (age, sex, race)
 - Interventions (percutaneous drainage, surgery)
 - Sepsis burden
 - Hospital characteristics, length of stay (LOS), in-hospital mortality, post-discharge care
 - Hospital charges
- Comparative analyses – male v female patients
- Analysis – weighted estimates, chi-square, ANOVA; p < 0.05 considered significant

STUDY DESIGN

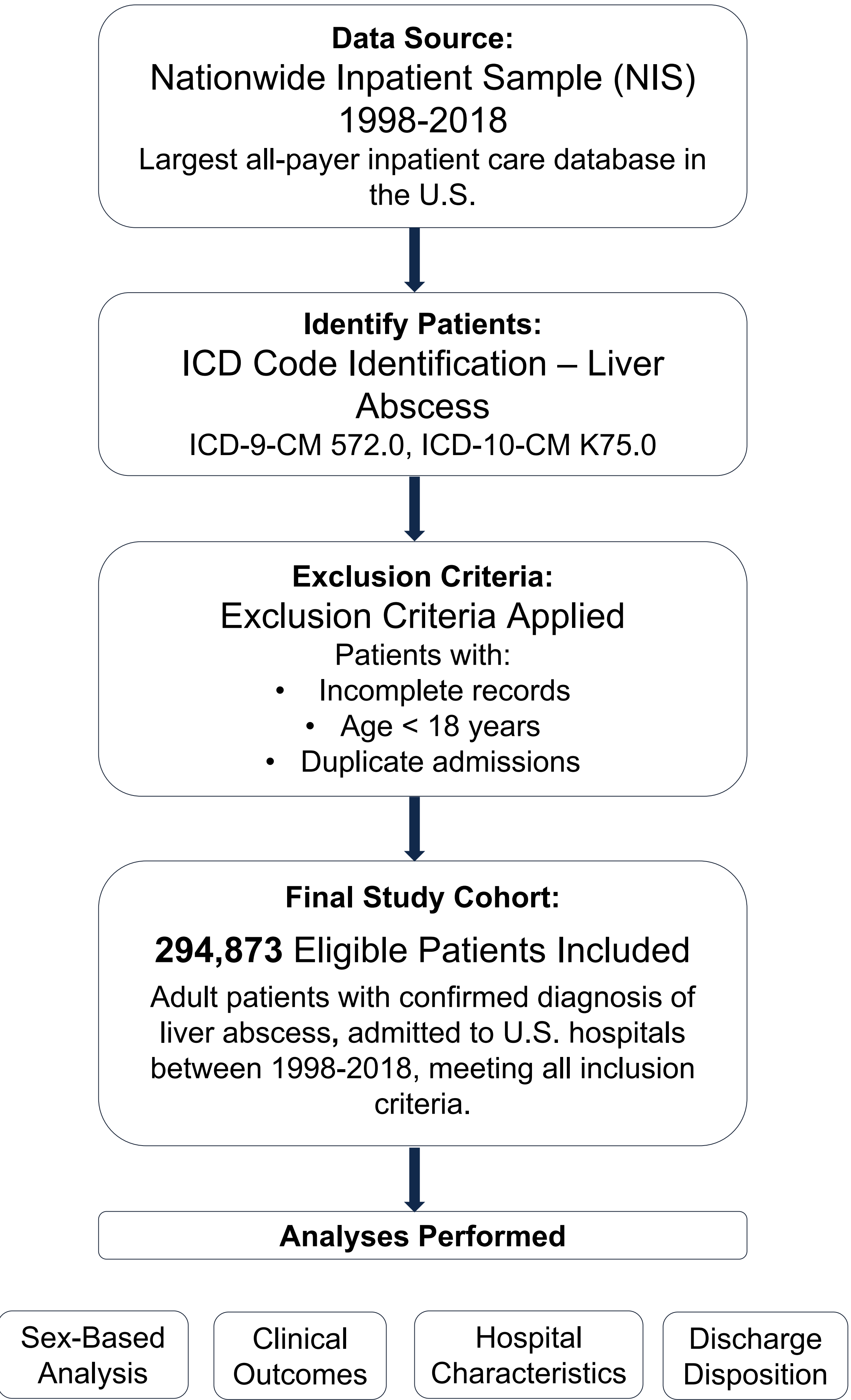


Figure 1. Flowchart of study design

RESULTS

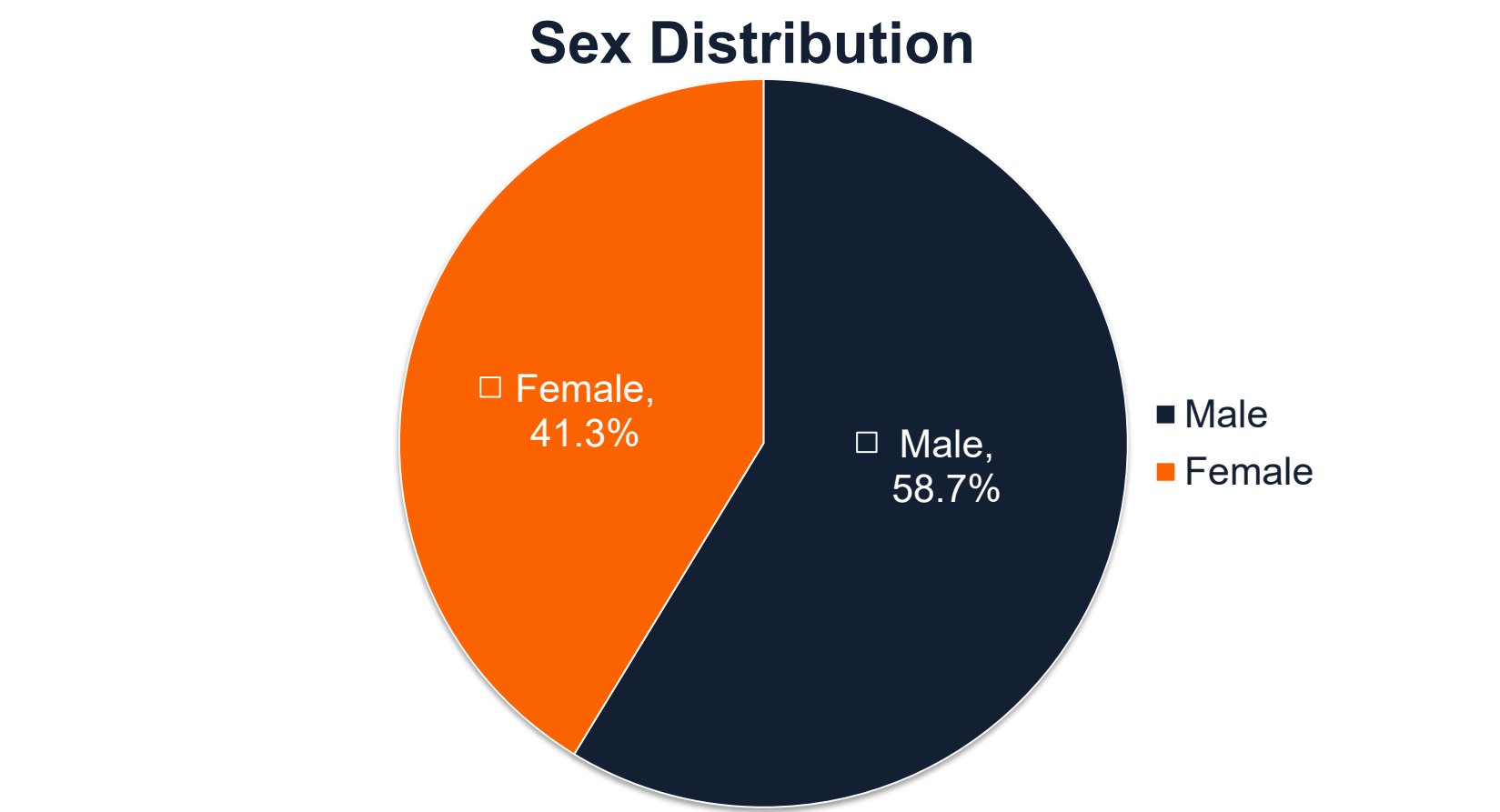


Figure 2. Distribution of male and female patients hospitalized with liver abscess (N = 294,873). Average age is 60.1±17.5 years.

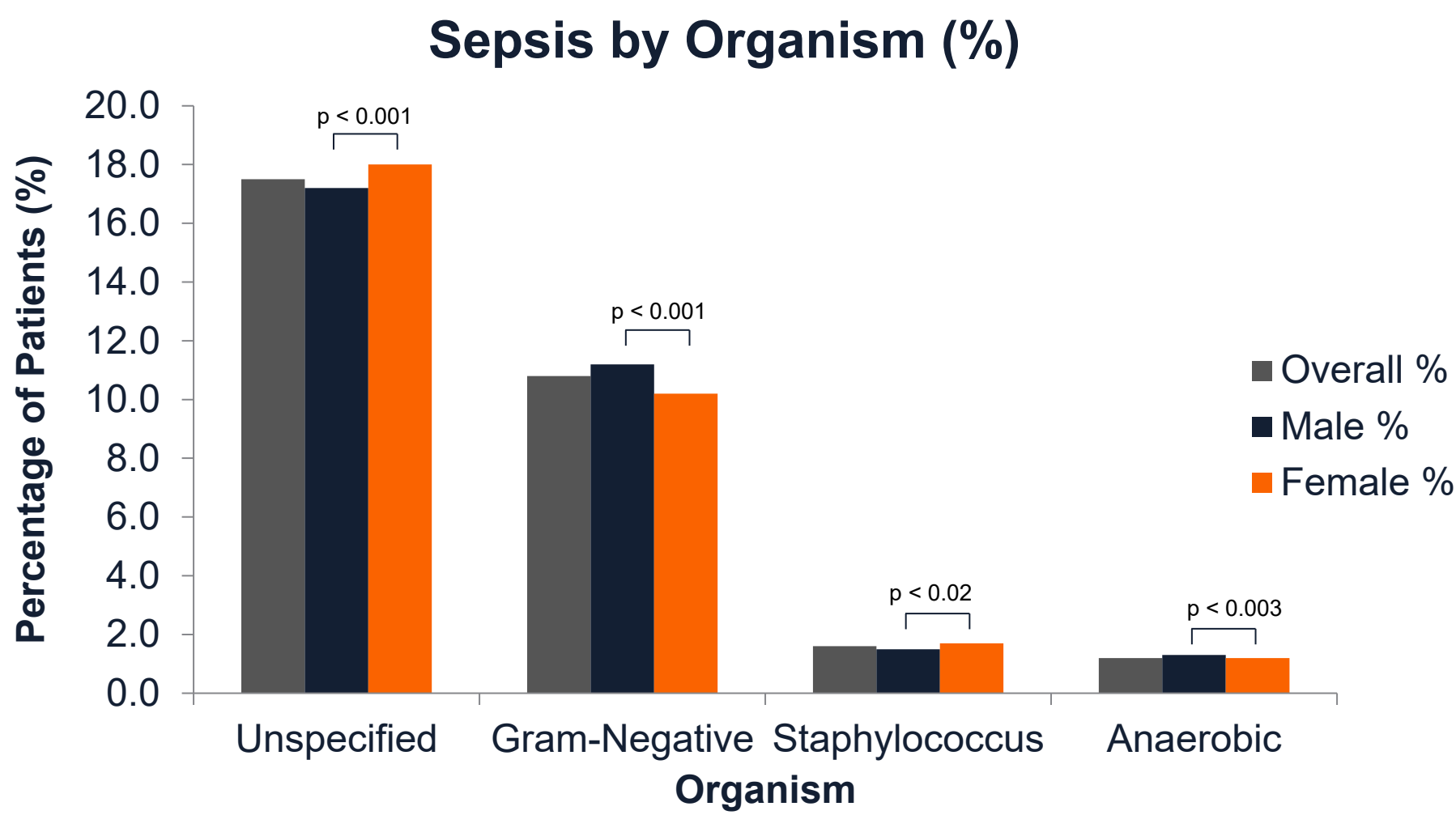


Figure 3. Distribution of sepsis types among patients with liver abscess, stratified by sex. Gram-negative most commonly identified, and more frequent in males (p < 0.001). p < 0.05 is statistically significant.

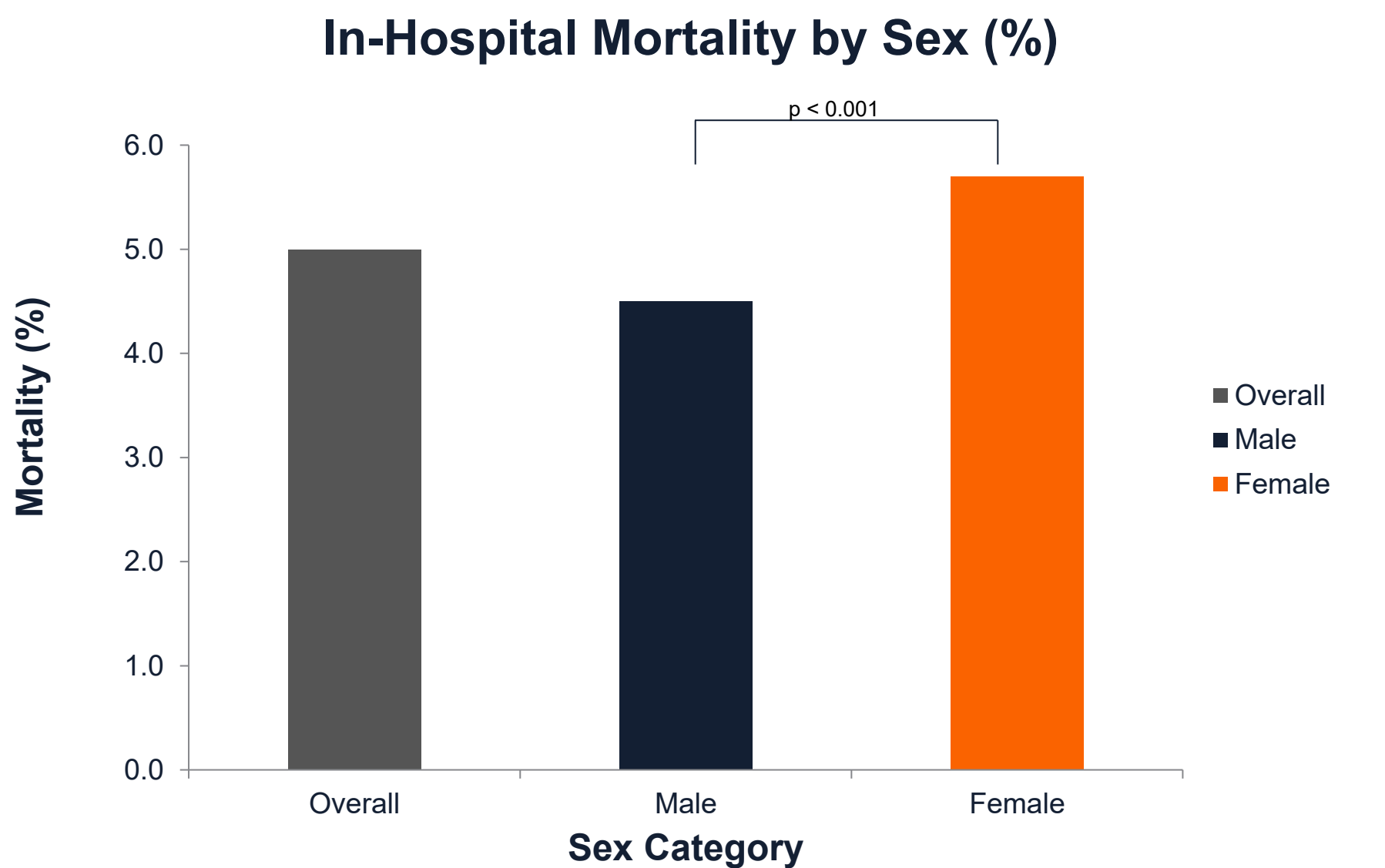


Figure 4. In-hospital mortality was significantly higher in females (p < 0.001).

RESULTS

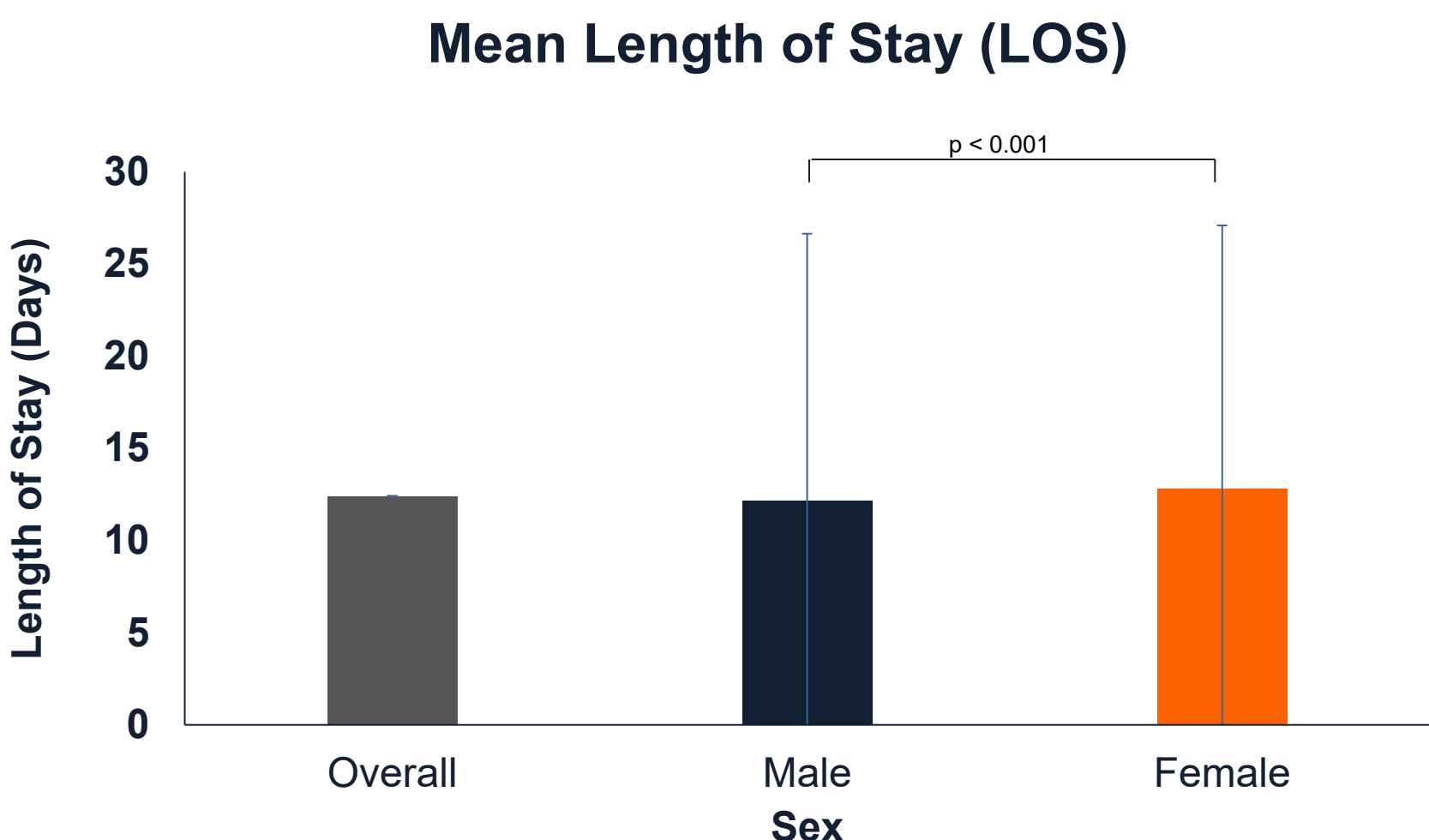


Figure 5. Mean hospital LOS among patients with liver abscess, overall and stratified by sex. Error bars indicate standard deviation.

DISCUSSION

- Liver abscess predominantly affects older adults and males
- Sex-based differences: females have higher mortality, longer LOS
- Although initial hypothesis was that male patients would experience worse clinical outcomes, analysis showed that female patients had higher in-hospital mortality (M, 4.5%; F, 5.7%; p<0.001) and longer hospital stays (p<0.001)
- Differences may be related to older age of female patients, increased post-discharge needs, other comorbidities.

CONCLUSION

- Liver abscess continues to cause significant morbidity and healthcare utilization
- Sex-based disparities exist in outcomes despite lower sepsis rates in females
- Findings highlight importance of optimizing liver abscess management and outcomes across various populations.