SEX-BASED DISPARITIES IN RESOURCE UTILIZATION AND COMPLICATIONS IN PATIENTS HOSPITALIZED WITH AGGRESSIVE B-CELL NON-HODGKIN LYMPHOMA: A NATIONAL INPATIENT ANALYSIS 2019-2020

Aayushi Pareek, MD[1], Sai D. Yeramalla[1], MBBS, Paige Nappier, MD[1], Humdum Durrani MD[2]

[1]St. Bernards Medical Center, Jonesboro, AR, USA

[2]St. Bernards Cancer Center, Jonesboro, AR, USA

INTRODUCTION

Women with aggressive B-cell non-Hodgkin lymphoma (B-NHL) represent a clinically distinct oncologic population, yet sex-based differences in inpatient complication burden, resource utilization, and costs remain uncharacterized.

With growing emphasis on value-based cancer care, identifying sex-specific outcome disparities has direct implications for equitable lymphoma management.

AIM

To evaluate sex-based differences in complications, costs and mortality among patients with aggressive B-cell NHL.

METHOD

We conducted a retrospective cross-sectional analysis of the National Inpatient Sample (NIS) 2019-2020, identifying adult hospitalizations with aggressive B-cell NHL.

The final cohort included 40,532 discharges (weighted N=202,660): 15,791 female (39%) and 24,741 male (61%).

Multivariable generalized estimating equations (GEE) logistic regression clustered by hospital was performed, adjusting for age, race/ethnicity, insurance, income, NHL subtype, hospital characteristics, Elixhauser comorbidity score, admission type, and calendar year.

False discovery rate correction was applied across all outcomes.

CONCLUSIONS

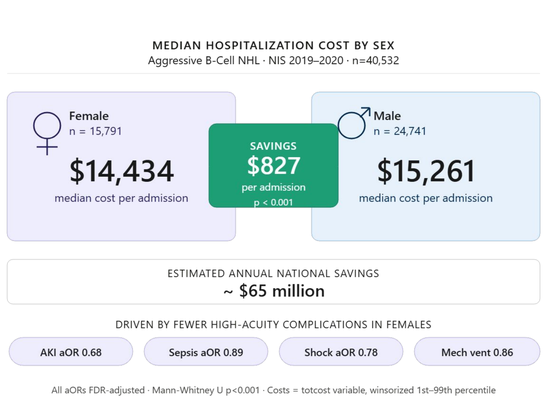
Women hospitalized with aggressive B-cell NHL experience fewer severe complications and lower costs despite equivalent mortality, suggesting sex-based dimorphism in acute physiological stress response.

The higher depression burden in women (17.5% vs 10.3%) is an underrecognized concern warranting psycho-oncologic screening.

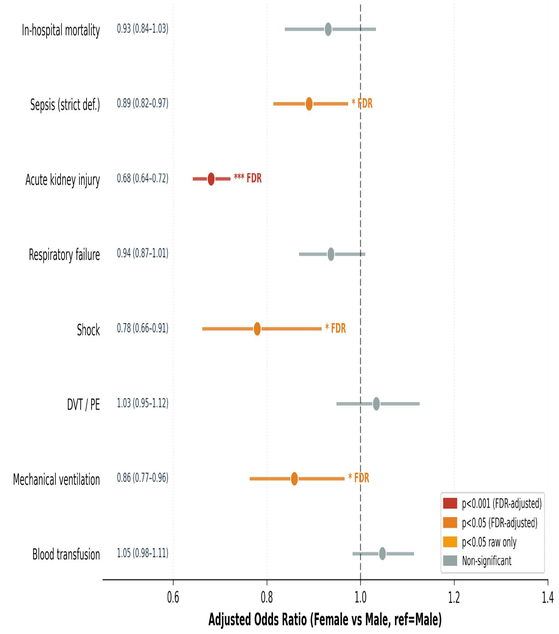
RESULTS

Females were older (64.1 vs 61.8 years, p<0.001), had higher DLBCL prevalence (81.0% vs 71.6%), higher Medicare enrollment (55.4% vs 48.6%), and significantly higher documented depression prevalence (17.5% vs 10.3%, SMD=0.21).

Female sex was not independently associated with mortality (aOR 0.93, 95% CI 0.84–1.03, p=0.169). However, women demonstrated significantly lower odds of acute kidney injury (aOR 0.68, 95% CI 0.64–0.72), sepsis (aOR 0.89, 95% CI 0.82–0.97), shock (aOR 0.78, 95% CI 0.66–0.92), and mechanical ventilation (aOR 0.86, 95% CI 0.77–0.96); all significant after FDR correction.



Women incurred $827 lower median hospitalization costs ($14,434 vs $15,261, p<0.001), representing ~$65 million in estimated annual national savings.



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CONTACT INFORMATION

Dr. Aayushi Pareek, MD
apareek@sbrmc.org

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