Investigating Unplanned 30-Day Readmissions Among Acute Myeloid Leukemia Patients With Upper Gastrointestinal Bleeding in the United States

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INTRODUCTION

Acute myeloid leukemia (AML) patients are prone to bleeding due to disease or chemotherapy-related thrombocytopenia and platelet dysfunction. Those with upper gastrointestinal bleeding (UGIB) have higher mortality and sepsis risk.

AIM

To investigate the 30-day readmission rate and associated risk factors among AML patients admitted with UGIB in the United States.

METHODS

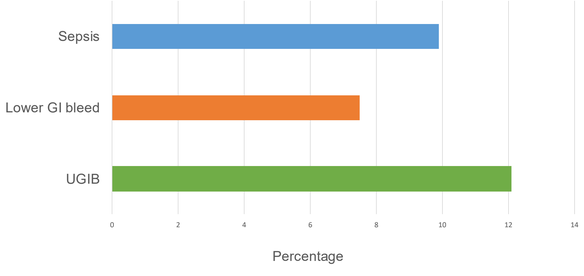
- **Data Source:** National Readmissions Database (NRD)
- **Population:** Active AML patients admitted for UGIB between January–November 2020–2022
- **Exclusions:** COVID-19 patients, transfers and cases with missing values
- **Variables:** Readmission rates, mortality, demographics, comorbidities, anticoagulant use, endoscopic evaluation, causes of readmission
- **Analysis** Logistic regression was used to identify factors associated with 30-day readmission, reported as adjusted odds ratios (aORs)

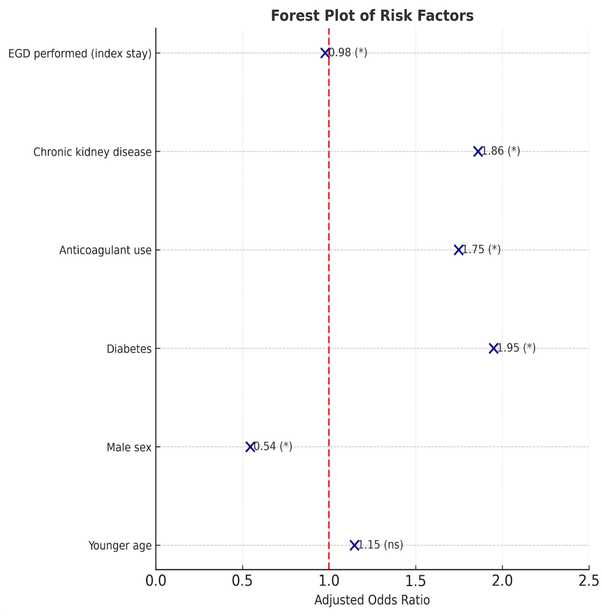
RESULTS

- **Cohort:** 671 AML patients with UGIB; mortality during index admission 7.8%.
- **Readmission:** 34.9% of survivors readmitted within 30 days; readmission mortality 12.3%.
- **Risk factors for readmission:** Younger age (aOR 0.98, *P*<0.01), male sex (aOR 1.86, *P*<0.01), diabetes (aOR 1.75, *P*<0.01), anticoagulant use (aOR 1.95, *P*=0.044). Chronic kidney disease was less common (aOR 0.54, *P*=0.016).
- **EGD:** Performed in ~1/3 of cases; no significant effect on readmissions.
- **Common causes of readmission:** UGIB (12.1%), lower GI bleed (7.5%), sepsis (9.9%).

Readmission Risk Factors Table

Risk factor	Adjusted OR (95% CI)	P-value
Younger age	0.978	0.01
Male sex	1.860	<0.001
Diabetes	1.748	<0.001
Anticoagulant use	1.950	0.044
Chronic kidney disease	0.544	0.016
EGD performed	1.146	0.469





CONCLUSION

Readmission after UGIB in AML patients is common (1 in 3) and carries high mortality. Younger age, male sex, diabetes, and anticoagulant use increase the likelihood of readmission, while **chronic kidney disease** is associated with lower likelihood. **EGD during the index admission did not reduce readmission rates.** These findings emphasize the need for **vigilant post-discharge monitoring** and **proactive strategies** to reduce bleeding and infection risks in this vulnerable population.