Cardiovascular Outcomes and Predictors of Mortality in Hematopoietic Stem Cell Transplant Recipients. An Analysis of the National Inpatient Sample (2016–2021)

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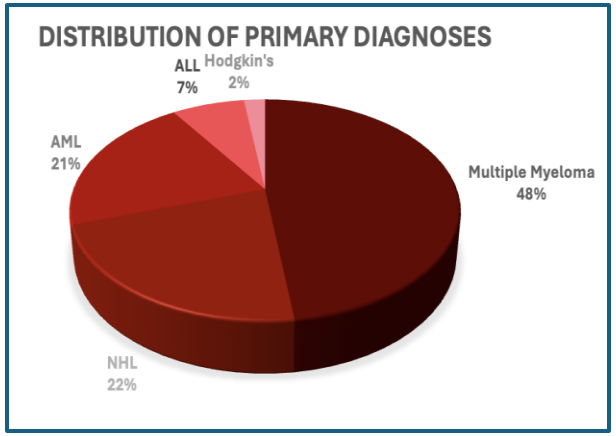
Background

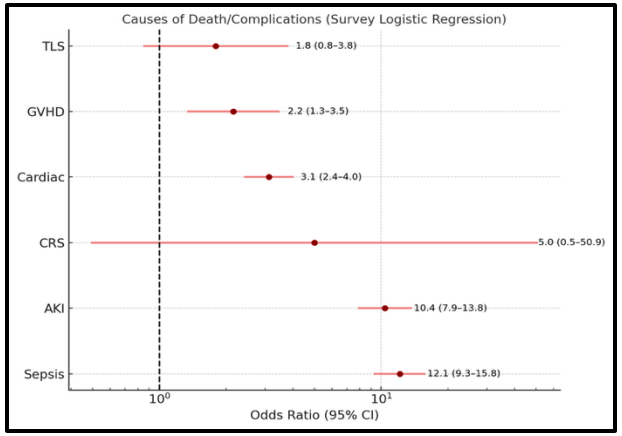
Hematopoietic stem cell transplantation (HSCT) is a curative therapy for hematologic malignancies, but it carries high risks of treatment-related complications. The burden and impact of cardiovascular complications remain underexplored in large populations.

Results

Demographics

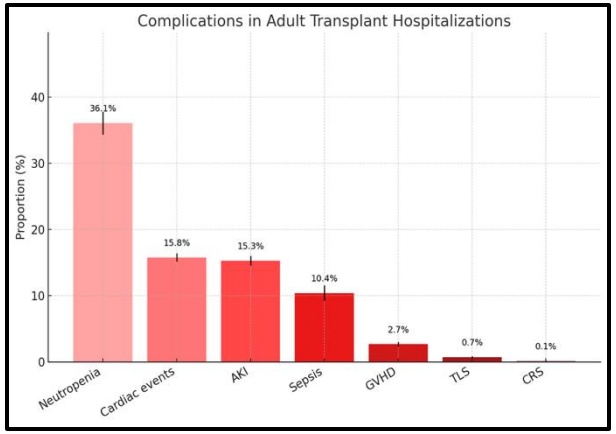
Total- 86,604. Mean age 56 years, M:F=7:5. Privately insured and higher socioeconomic status patients had significantly higher odds, while Black populations had lower odds ($p<0.01$)

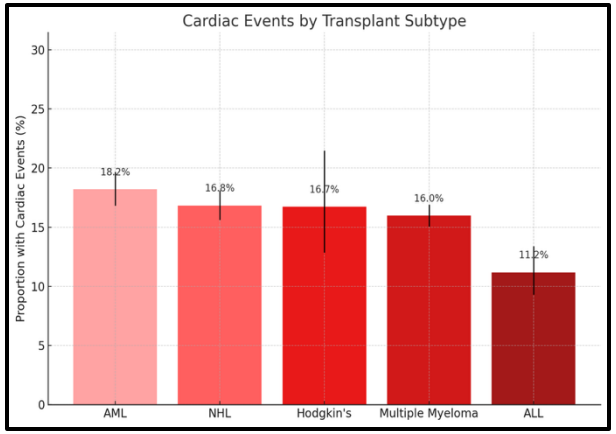


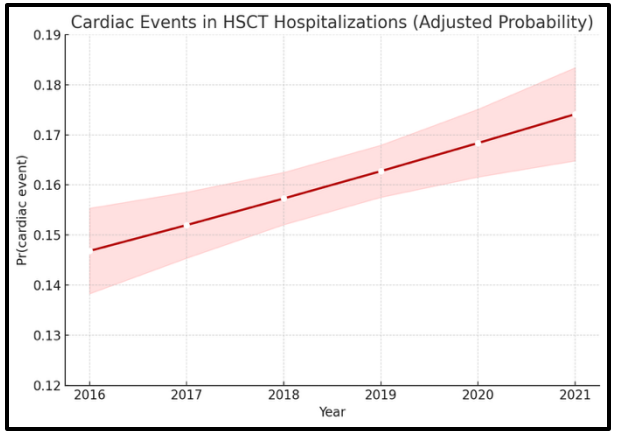


Methods

HSCT hospitalizations between 2016 and 2021 were identified from the Nationwide Inpatient Sample (NIS) using ICD-10 codes. Demographics, complications, and outcomes were examined using descriptive statistics and regression analysis.







Conclusion

Cardiac events post HSCT were more common than aGVHD, CRS, Sepsis or AKI, and significantly impacted both in-hospital mortality and length of stay. Given the rising incidence, pre-transplant cardiovascular risk assessment and inpatient monitoring should be prioritized to improve HSCT outcomes.