DISPARITIES IN DEMOGRAPHICS, TREATMENT, AND OUTCOMES AMONG LEUKEMIA PATIENTS WITH INTELLECTUAL DISABILITIES: A NATIONAL INPATIENT SAMPLE ANALYSIS

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Introduction

Patients with intellectual disabilities (ID) face unique barriers in cancer care, often resulting in undertreatment. This study examines demographic disparities, treatment utilization, and clinical outcomes in hospitalized leukemia patients with comorbid ID.

Aim

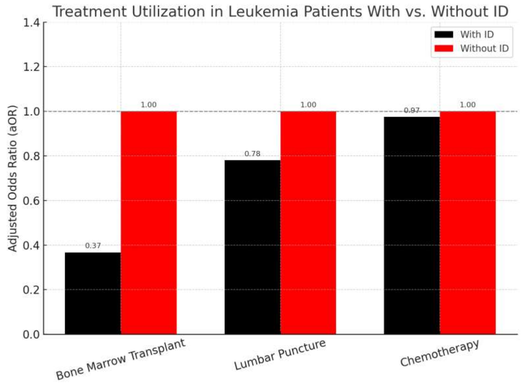
To compare leukemia patients with and without intellectual disabilities in terms of demographics, treatment patterns, and in-hospital outcomes.

Objectives

- Evaluate demographic differences in leukemia patients with ID
- Compare treatment utilization and hospital resource use
- Analyze outcome disparities and complication rates

Methods

A retrospective analysis using the National Inpatient Sample (2016–2020) was conducted. ICD-10 codes identified leukemia patients with and without comorbid ID. Group comparisons were performed using chi-square and t-tests. Adjusted odds ratios (aOR) for key outcomes were calculated using multivariable logistic regression, controlling for age, sex, race, and CCI.



Results

Demographics:

- Mean age: ID patients (22.5 yrs) vs. non-ID (62.7 yrs), p < .001
- More females in ID group: 44.3% vs. 43.3%, p < .001
- Race:
  - White: 52.7% (ID) vs. 69.6% (non-ID)
  - Black: 9.4% vs. 13.4%
  - Hispanic: 28.3% vs. 10.4%
  - Asian: 4.2% vs. 2.6% (p < .001 for all)

Insurance & Comorbidity:

- Medicaid: 41.0% (ID) vs. 11.4% (non-ID), p < .001
- CCI: 3.1 vs. 6.3, p < .001

Resource Use:

- Length of stay: 12.1 vs. 8.0 days, p < .001
- Total charges: $143,930 vs. $102,199, p < .001

Clinical Outcomes:

- Sepsis: 11.9% vs. 15.6%
- Hemorrhage: 3.3% vs. 10.4%
- VTE: 2.9% vs. 5.3%
- Organ failure: 23.4% vs. 48.6%
- Mortality: 2.7% vs. 5.5% (p < .001 for all)

Treatment Odds:

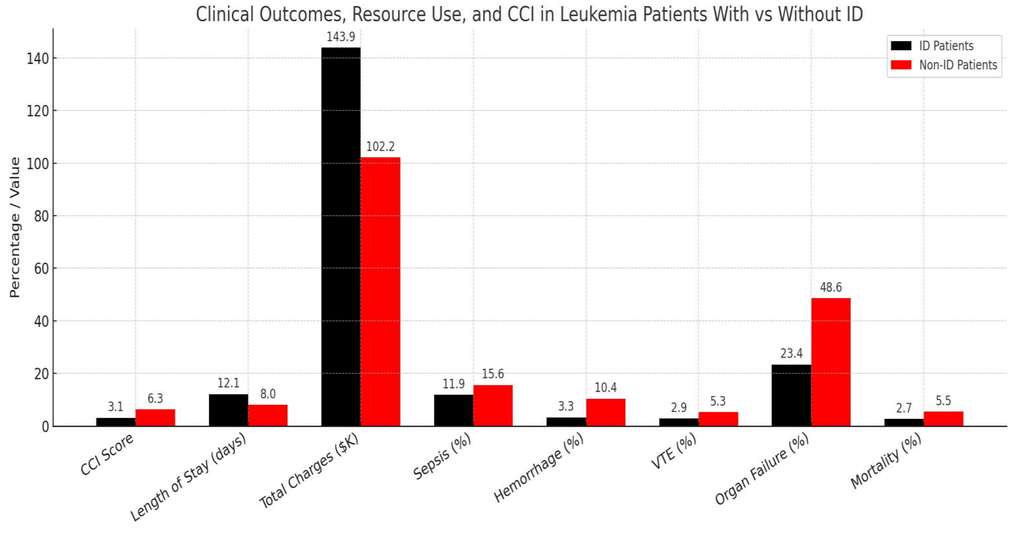
- Bone marrow transplant: ↓ aOR 0.330–0.405
- Lumbar puncture: ↓ aOR 0.731–0.831
- Chemotherapy: no significant difference (aOR 0.938–1.012)

Summary

Leukemia patients with intellectual disabilities experience significantly lower rates and odds of invasive procedures despite better baseline health and lower complication rates, raising concern for undertreatment.

Discussion

Lower intensity of care in leukemia patients with ID—despite favorable clinical profiles—suggests potential systemic bias or care disparities. Targeted awareness and policy reform are needed to ensure equitable hematologic oncology care.



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