Disparities and Incomplete Capture of Race/Ethnicity Data in Adults with Hematologic Malignancies Referred for Cellular Therapies

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Introduction

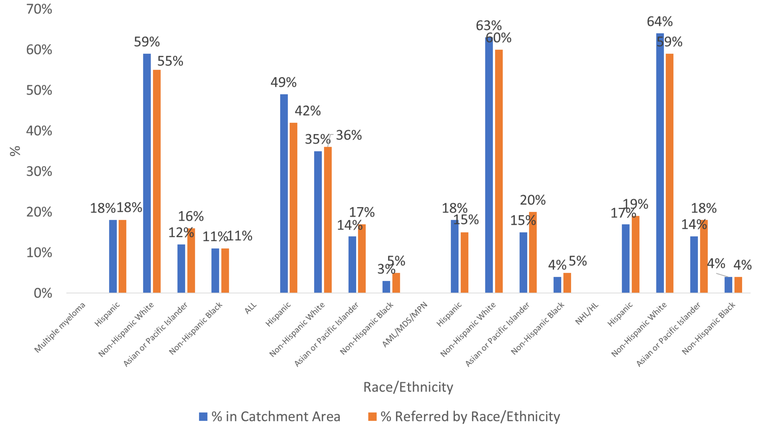
- Numerous reports demonstrate disparities in access to care, clinical trial enrollment, and survival outcomes in various hematologic malignancies based on race/ethnicity.[1-4]
- Based on 2020 US Census data, the Stanford Cancer Institute catchment area includes a population of 32% Non-Hispanic White (NHW), 32% Hispanic, 25% Asian or Pacific Islander (API) and 5% Non-Hispanic Black (NHB).
- The objective of this study was to examine reporting of race/ethnicity and disparities in referral for, and receipt of, cellular therapies based on race/ethnicity in our region.

Methods

- Retrospective review of patient electronic medical records.
- Assessed race and ethnicity among adults referred to Stanford for hematopoietic cell transplantation (HCT) and chimeric antigen receptor T-cell (CAR-T) between January 1, 2018, and February 28, 2022.
- The percentage of race/ethnicity by disease type was calculated using crude rates obtained through the California Cancer Registry.
- Stanford Cancer Institute Catchment area includes the following 5 California regions:
  - North, Sacramento, Santa Clara, Bay Area and Central
- Race/ethnicity data were evaluated as was receipt of cellular therapy.

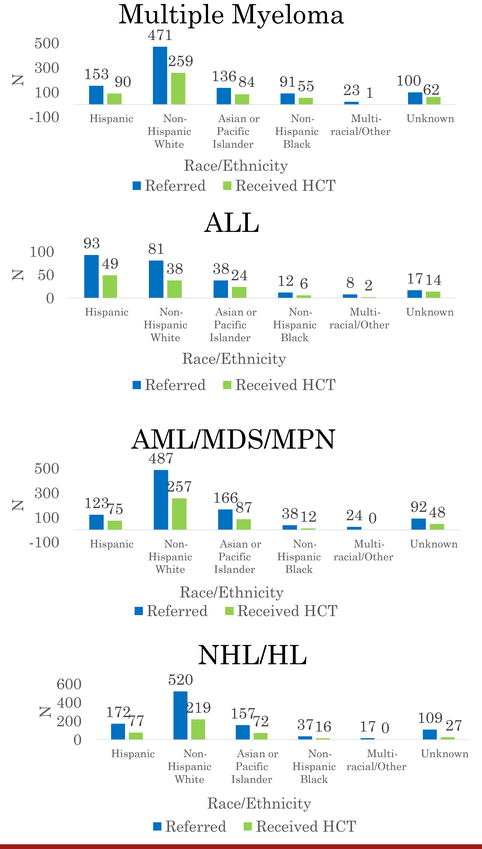
Results

Distribution of Race/Ethnicity in Catchment Area vs Referral Population by Disease



All Adult Patients Referred to Stanford University for Cellular Therapy by Race/Ethnicity, January 2018 - February 2022

Race/Ethnicity	Referred (%)	Received HCT (%)	Recieved CAR-T (%)
Hispanic	599 (17)	312 (18)	59 (18)
Non-Hispanic White	1,743 (49)	836 (49)	181 (54)
Asian or Pacific Islander	560 (16)	290 (17)	44 (13)
Non-Hispanic Black	193 (5)	95 (6)	10 (3)
Multi-racial/Other	87 (2)	2 (<1)	6 (2)
Unknown	350 (10)	160 (9)	33 (10)
Total patients	3,532	1,695	333



Conclusions

- Relative to the ethnic/racial distribution of hematologic malignancy patients in N. California, only Hispanic patients with AML and ALL were referred less than expected by disease epidemiology.
- Once referred, few ethnic/racial disparities in converting to receipt of cellular therapy occurred- only Black AML patients were less likely to receive HCT than expected.
- Referral patterns and receipt of cellular therapies were as expected by race/ethnicity for NHL and MM.
- At least 10% of referred patients have unknown or unreported race/ethnicity.
- System-wide improvements in ascertaining race/ethnicity and social determinants of health are needed.

References

1. Racial and ethnic disparities in hematologic malignancies, *Blood*
2. Racial disparities in incidence and outcome in multiple myeloma: a population-based study. *Blood*
3. The impact of race on outcomes of autologous transplantation in patients with multiple myeloma. *Am J Hematol.*
4. Race and socioeconomic status influence outcomes of unrelated donor hematopoietic cell transplantation. *Biol Blood Marrow Transplant.*