Systematic Review: Diversity of Enrollment in Multiple Myeloma Drug Trials Among Different Ethnicities

kaitlin adams
kaitadams12@gmail.com

Laura Guerrieri
leg1117@gmail.com

Follow this and additional works at: https://via.library.depaul.edu/nursing-colloquium

Part of the Oncology Commons

This Event is brought to you for free and open access by the School of Nursing at Via Sapientiae. It has been accepted for inclusion in Grace Peterson Nursing Research Colloquium by an authorized administrator of Via Sapientiae. For more information, please contact wsulliv6@depaul.edu, c.mcclure@depaul.edu.
Systematic Literature Review: Diversity of Enrollment in Multiple Myeloma Drug Trials Among Different Ethnicities

Background & Significance

- **Multiple Myeloma** is a malignant disease characterized by the infiltration of bone marrow by cancerous plasma cells.
- Multiple myeloma affects Non Hispanic Blacks (NHB) 66% more often than Non Hispanic Whites (NHW).
- Average cost of these drug therapies range from $4,000-6000.

**The Purpose:** compare the ethnic diversity in enrollment for different drugs used to treat multiple myeloma.

**Research Questions**
- What barriers are preventing NHB from participating in clinical trials?
- What can be done to help increase participation?

Methods

- 37 articles
- Gender (Male/Female)
- Ethnicity (African American, White, Asian, Hispanic)
- Drugs included: Thalidomide, Bortezomib, Carfilzomib, ixazomib, Lenalidomide, Pomalidomide, Panobinostat, Elotuzumab, Daratumumab
- Clinical trials in phases 2 or 3
- Excluded:
  - 20 sources missing African American participation data
  - 22 sources missing White participation data
- Included:
  - 15 viable data sources for NHB participation
  - 17 viable data sources for NHW participation
- In 2018, 30,770 new multiple myeloma cases were diagnosed and of these 6,190 were NHB.
  - 20.11%

Results

- T-test is significant .000 < .05
  - One sample T-test value = 20.11
- Mean NHW enrollment - 346.9
- Mean NHB enrollment - 11.73
- Average % of NHW enrollment - 83%
- Average % of NHB enrollment - 5.3%
- Large amount of missing data from data sources.

Discussion & Conclusion

- African American cases make up 20% of the new cases diagnosed in 2018.
- Based on enrollment NHB are enrolled to the same degree as the NHW population.
- What is possibly keeping them from enrolling
  - 25% of the population in poverty is made of African American.
  - Cost of these drugs
  - Locations of where therapy is done (US/International)
  - Personal view point of patient
- Pharmaceutical company reporting and research
  - Not required to report
  - Could be altering the collected data
  - Out of 37 sources of data only 4 were either not funded or did not state pharmaceutical funding for their research.
- More research is needed to determine why the most affected population isn't properly represented in drug clinical trials.

Kaitlin Adams & Laura Guerrieri MENP
Research Advisor: Dr. Joseph Tariman

Average number of patients enrolled per Clinical Trial

Non Hispanic Blacks  Hispanic

Non Hispanic Whites