SOHO ANNUAL MEETING 2024

MULTIPLE MYELOMA MORTALITY TRENDS BEFORE PANDEMIC, STRATIFIED BY YEAR, SEX, AND RACE; 1999-2019

M.F. ASLAM[1] and M.H.K. WAZIR[2]
1. Ascension St. Vincent's Hospital, Birmingham, Alabama, USA
2. Montefiore St. Luke's Cornwall, New York, NY, USA

Ascension
Montefiore
St. Luke's Cornwall

INTRODUCTION

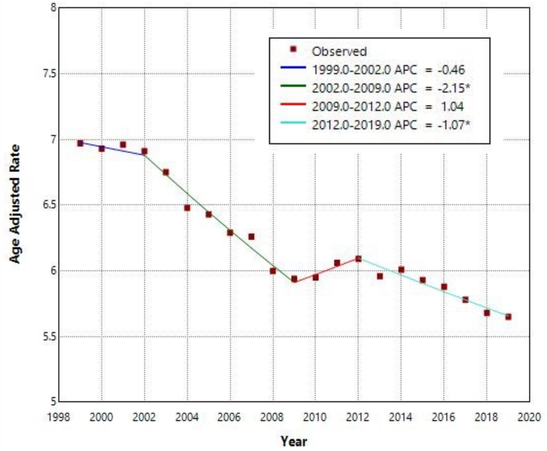
Multiple myeloma prognosis has improved over past two decades due to latest advancements. Knowledge about mortality trends play a crucial role in long-term management of these patients. The aim of this study is to examine the trends in Multiple Myeloma related deaths stratified by year, sex and race in the United States from 1999 to 2019.

METHODS

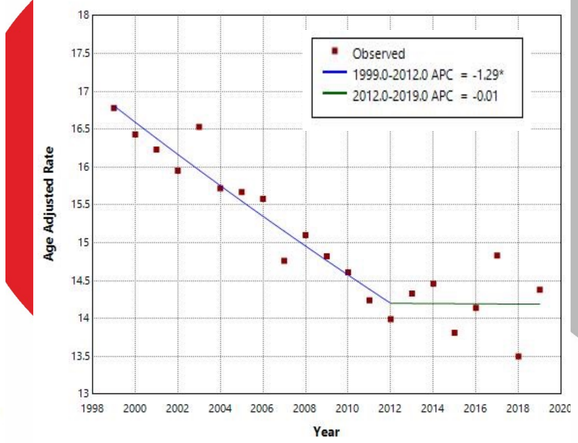
We used CDC Wide-ranging Online Data for Epidemiologic Research (CDC WONDER) to access National Vital Statistics System data from 1999 to 2019. Multiple Myeloma related deaths, age ≥25 years were identified from multiple causes of death. Age-adjusted mortality rates per 100,000 persons (AAMR) were calculated and standardized to the 2000 US census data. Joinpoint regression was used to examine changes in trend, annual percentage change (APC) and average annual percentage change (AAPC) overall and stratified by sex and racial/ethnic groups.

RESULTS

AAMR was 6.97 in 1999 and 5.65 in 2019 (AAPC -1.04 [95% CI, -1.1 to -0.91]). APC in AAMR showed steady decline with slight increase from 2009 to 2012. AAMR was higher in men (7.89) than women (4.95). AAMR was highest in non-Hispanic black (NHB) (11.96) followed by non-Hispanic white (NHWs) (5.75), non-Hispanic American Indian or Alaska Native (NH-AIAN) (5.29), Hispanic (4.96) and lastly non-Hispanic Asian or Pacific Islander (NH-APIs) (3.0). AAMR was highest in NHB males (14.87). AAPC in AAMR decreased in men (-0.89) and women (-1.40). APC in AAMR decreased in NHW (-2.05) till 2009, then remained steady until 2012 (0.95) and decreasing again towards 2019 (-1.00). NHB has shown steady decline in AAPC in AAMR since 1999 (-1.11). APC in AAMR decreased in NHB male till 2012 (-1.29) and since then has remained significantly unchanged.



Graph 1: MM related deaths, APC in AAMR over years, age ≥25 years.
** Indicates that the Annual Percent Change (APC) is significantly different from zero at the alpha = 0.05 level.*
Final Selected Model: 3 Joinooints.



Graph 2: MM related deaths, APC in AAMR in non-Hispanic black males
** Indicates that the Annual Percent Change (APC) is significantly different from zero at the alpha = 0.05 level.*
Final Selected Model: 1 Joinooints.

CONCLUSIONS

This study provides valuable insights into the mortality trends associated with Multiple Myeloma among population age ≥ 25 years in the United States. Mortality remains significant in African American population despite advancements. Continued surveillance and research efforts are warranted to monitor changes in disease incidence, identify emerging risk factors, and inform evidence-based interventions aimed at improving outcomes across all groups.

CITATION

Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 1999-2020 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 1999-2020, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at http://wonder.cdc.gov/mcd-icd10.html

CONTACT INFORMATION

Email:
1st author: faisalaslammd@gmail.com
2nd author: mhkw555@gmail.com