

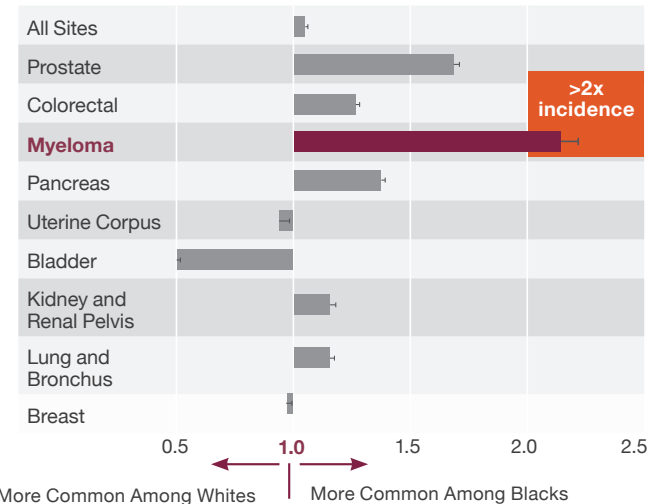


Multiple myeloma is one of the malignancies with the greatest disparity in incidence and prevalence between African Americans and white Americans.^{1,2}

Actual multiple myeloma patient.

- Multiple myeloma is the second most common hematologic malignancy in the United States, and the **most common hematologic malignancy for African Americans^{3,4}**
- African Americans represent 13.4% of the US population and **20% of patients with multiple myeloma^{5,6}**

Comparison of Cancer Incidence Rates Between Non-Hispanic Blacks and Whites, US, 2011-2015^{1a}

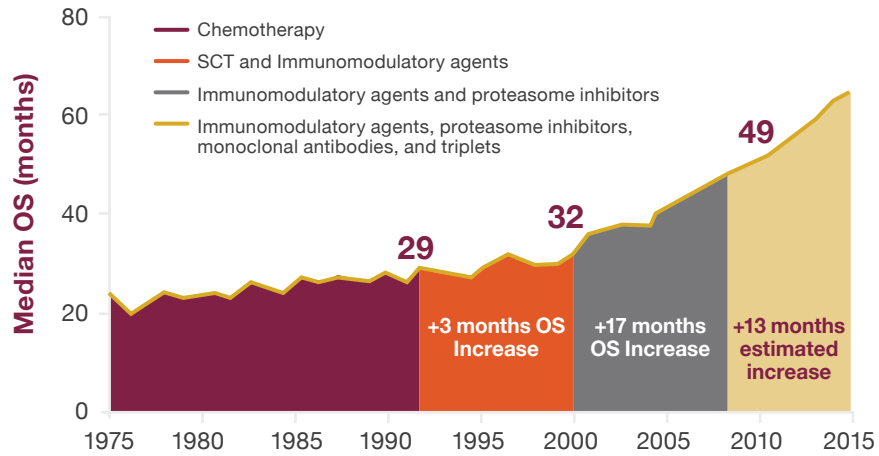


^aCancer incidence rates represented are for males except uterine corpus and breast. Rate ratios are depicted and are the unrounded rate in blacks divided by the unrounded rate in whites. Rates are per 100,000 and age adjusted to the 2000 US standard population.

Standing in the Gaap was created to help spread the word about how multiple myeloma affects African Americans, in order to improve the care they receive.

Over the last decade, survival in patients with multiple myeloma has improved⁷

Advances in Multiple Myeloma in the United States

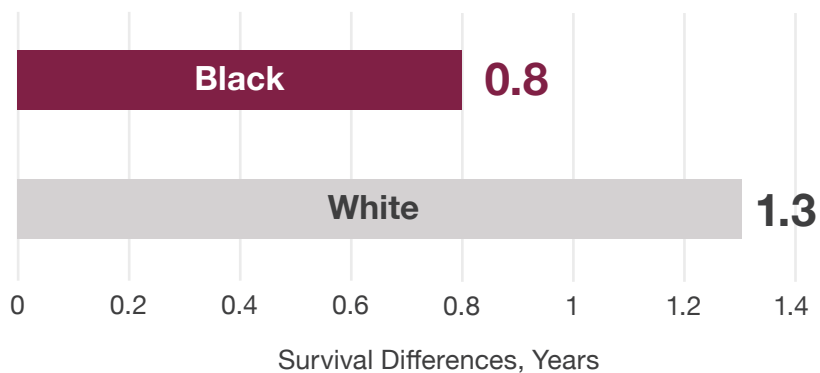


Calculations after 2008 were based on a patient flow model that included clinical trials, cancer registries, and key opinion leader insights.

OS=overall survival; SCT=stem cell transplantation.

African Americans have had a smaller improvement in survival compared with white patients⁸

Survival Improvement Based on SEER Data 1992-2007 (N=37,963)⁸



SEER=Surveillance, Epidemiology, and End Results.

Disparity in improvement of survival for African Americans may be due to the lack of access to the same therapies as white patients⁹

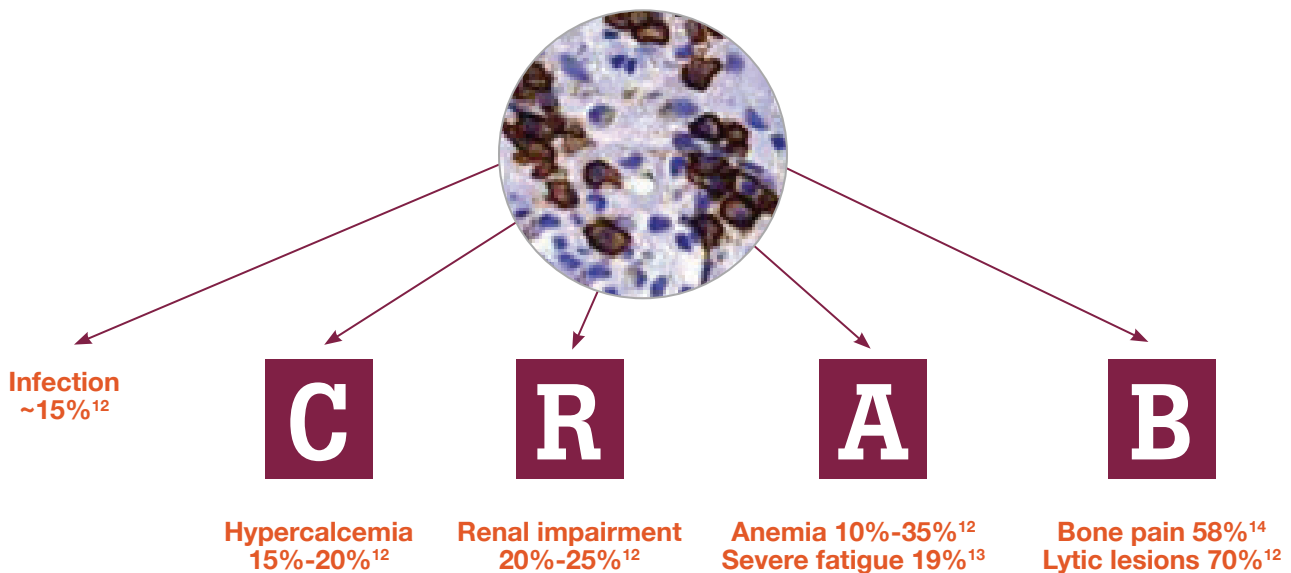
- African Americans are less likely to undergo stem cell transplant¹⁰ and to receive triplet therapies for multiple myeloma¹¹



Actual multiple myeloma patient.

Multiple myeloma presents with a spectrum of clinical manifestations¹²⁻¹⁴

Multiple Myeloma Cells Infiltrate the Bone Marrow*



*This image was originally published in ASH Image Bank. Stanely Schrier. Multiple myeloma-2. ASH Image Bank. 2011; 1815.
© The American Society of Hematology.

References: **1.** American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021*. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/cancer-facts-and-figures-for-african-americans/cancer-facts-and-figures-for-african-americans-2019-2021.pdf>. Accessed 8/18/2020. **2.** Greenberg AJ, Philip S, Paner A, et al. *Blood Cancer J*. 2015;4:e271. **3.** American Cancer Society. *Cancer Facts and Figures 2020*. Atlanta, GA: American Cancer Society; 2020. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2020/cancer-facts-and-figures-2020.pdf> Accessed August 18, 2020. **4.** Baker A, Braggio E, Jacobus S, et al. *Blood*. 2013;121(16):3147-3152. **5.** US Census Bureau Quick Facts. www.census.gov/quickfacts/fact/table/US/PST045219. Accessed August 18, 2020. **6.** Howlader N, Noone AM, Krapcho M, et al. SEER Cancer Statistics Review, 1975-2017. National Cancer Institute. Bethesda, MD. https://seer.cancer.gov/csr/1975_2017/, based on November 2019 SEER data submission, posted to the SEER website, April 2020. **7.** Drawid A, Kaura S, Kiely D, et al. Impact of novel therapies on multiple myeloma survival—current and future outcomes. Poster presentation at: 20th Congress of the European Hematology Association (EHA). 2015. #E1233. **8.** Ailawadhi S, et al. *Blood Cancer J*. 2018;8:67-74. **9.** Waxman AJ, et al. *Blood*. 2010;116:5501-5506. **10.** Fiala MA, et al. *Cancer*. 2017;123(9):1590-1596. **11.** Necamp J, et al. *Blood*. 2016;128:4502. **12.** Bladé J, Rosinol R. *Hematol Oncol Clin North Am*. 2007;21(6):1231-1246. **13.** Coleman EC, Goodwin JA, Coon SK, et al. *Cancer Nurs*. 2011;34(3):219-227. **14.** Kyle RA, Gertz MA, Witzig TE, et al. *Mayo Clin Proc*. 2003;78(1):21-33. **15.** Rajkumar SV, et al. *Lancet Oncol*. 2014;15(12):e538-e548. **16.** Bianchi G, et al. *Hematol Oncol Clin North Am*. 2012;26(2):383-393.

Recognize the signs of multiple myeloma

Definition of multiple myeloma using 2014 IMWG guidelines¹⁵

- Clonal bone marrow plasma cells $\geq 10\%$, or
- biopsy-proven bony or extramedullary plasmacytoma^a and
- any 1 or more of the following myeloma-defining events:

	Comorbidity ¹⁵	IMWG Guidelines ¹⁵
C	Hypercalcemia	Serum calcium >0.25 mmol/L (>1 mg/dL) higher than the upper limit of normal or >2.75 mmol/L (>11 mg/dL)
R	Renal insufficiency	Creatinine clearance <40 mL/min ^b or serum creatinine >177 μ mol/L (>2 mg/dL)
A	Anemia	Hemoglobin value of >2 g/L below the lower limit of normal, or a hemoglobin value <10 g/L
B	Bone lesions	≥ 1 osteolytic lesion on skeletal radiography, computed tomography (CT), or positron emission tomography CT ^c
S	60% plasmacytosis BM plasma cell infiltration $\geq 60\%$	Li Light chains involved:uninvolved serum FLC ratio: Involved and uninvolved serum FLC (not urine FLC) ratio ≥ 100 (with involved FLC >10 mg/dL)
		M MRI ≥ 1 focal lesion >5 mm

BM=bone marrow; FLC=free light chain; IMWG=International Myeloma Working Group; MRI=magnetic resonance imaging.

Symptoms associated with multiple myeloma may be accompanied by recurrent infections due to a weakened immune system.¹²

Consider referring to an oncologist or hematologist if multiple myeloma is suspected. Early recognition and diagnosis are key to helping patients get appropriate care.¹⁶

^aClonality should be established by showing κ/λ light chain restriction on flow cytometry, immunohistochemistry, or immunofluorescence. Bone marrow plasma cell percentage should be estimated preferably from a core biopsy specimen; in case of a disparity between the aspirate and core biopsy, the highest value should be used.

^bMeasured or estimated by validated equations.

^cIf bone marrow has $<10\%$ clonal plasma cells, >1 bone lesion is required to distinguish from solitary plasmacytoma with minimal marrow involvement.



Join our community at [facebook.com/StandingInTheGaap](https://www.facebook.com/StandingInTheGaap)

Over 61,000 followers to date!