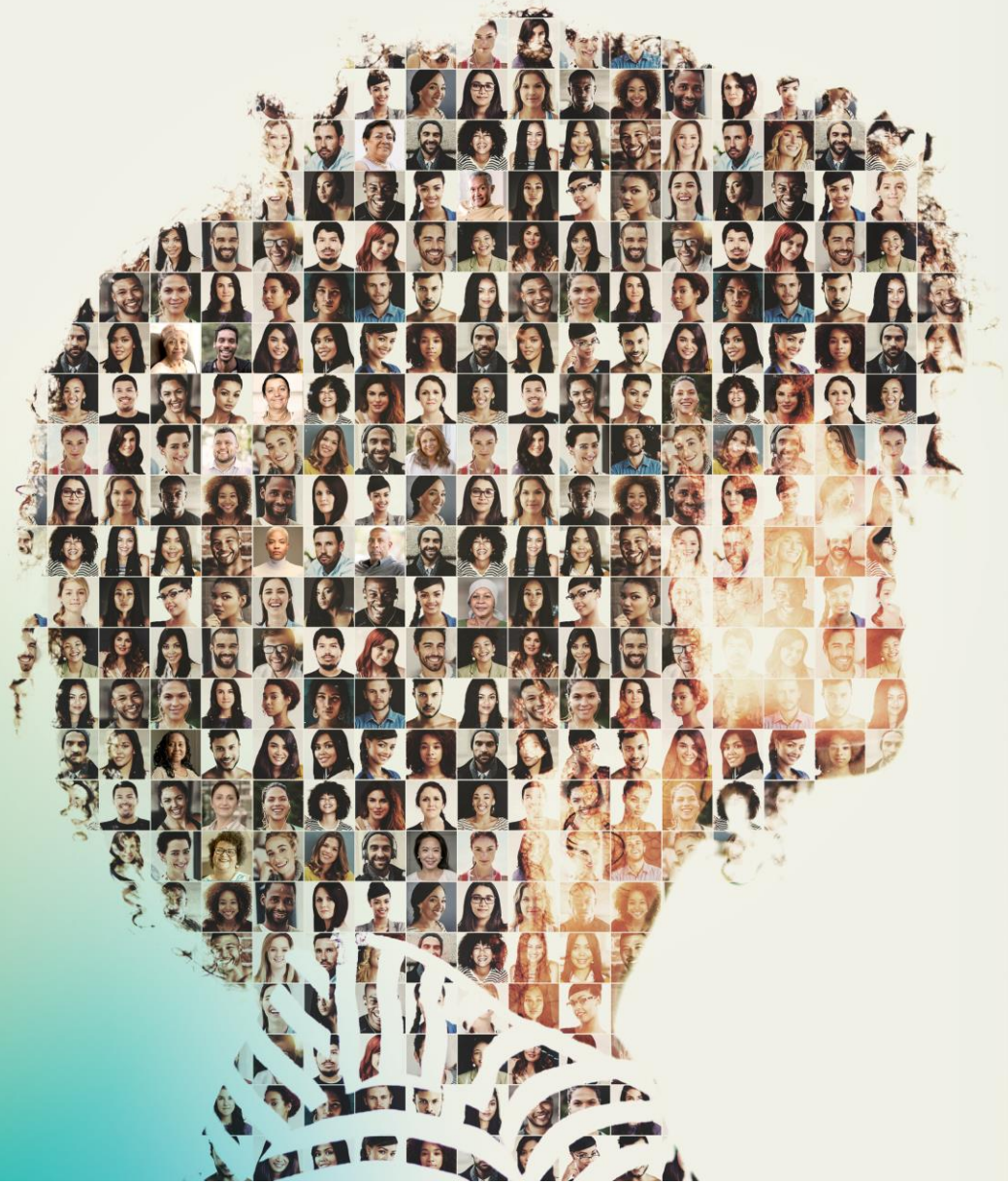

06.09.2021

AN ACCREDITED CONTINUING EDUCATION SERIES WITH THE EXPERTS

Addressing Disparities in Cancer Care and Incorporating Precision Medicine for Minority Populations

THIS ACTIVITY IS JOINTLY PROVIDED BY University of Nebraska Medical Center Bio Ascend

ENDORSED BY W. MONTAGUE NMA HEALTH Cobb Institute

Faculty

Moderator & Course Director

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Department of Medical Oncology
Director, Center to Eliminate Cancer Disparities
Associate Director, Diversity Affairs
Sidney Kimmel Cancer Center at Jefferson
116th President National Medical Association

Presenter

Sagar Lonial, MD, FACP

Chief Medical Officer
Professor and Chair, Department of Hematology and Medical Oncology
Anne and Bernard Gray Family Chair in Cancer
Winship Cancer Institute of Emory University

Presenter

Joseph Mikhael, MD, MEd, FRCPC, FACP

Chief Medical Officer, International Myeloma Foundation
Professor, Applied Cancer Research and Drug Discovery, Translational Genomic Research Institute (TGen), City of Hope Cancer Center
Consultant Hematologist and Director, Myeloma Research, Phase 1 Program, *HonorHealth Research Institute*
Adjunct Professor, College of Health Solutions, *Arizona State University*

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EMORY WINSHIP CANCER INSTITUTE

A Cancer Center Designated by the National Cancer Institute

EMORY UNIVERSITY SCHOOL OF MEDICINE

OUTCOMES IN MM

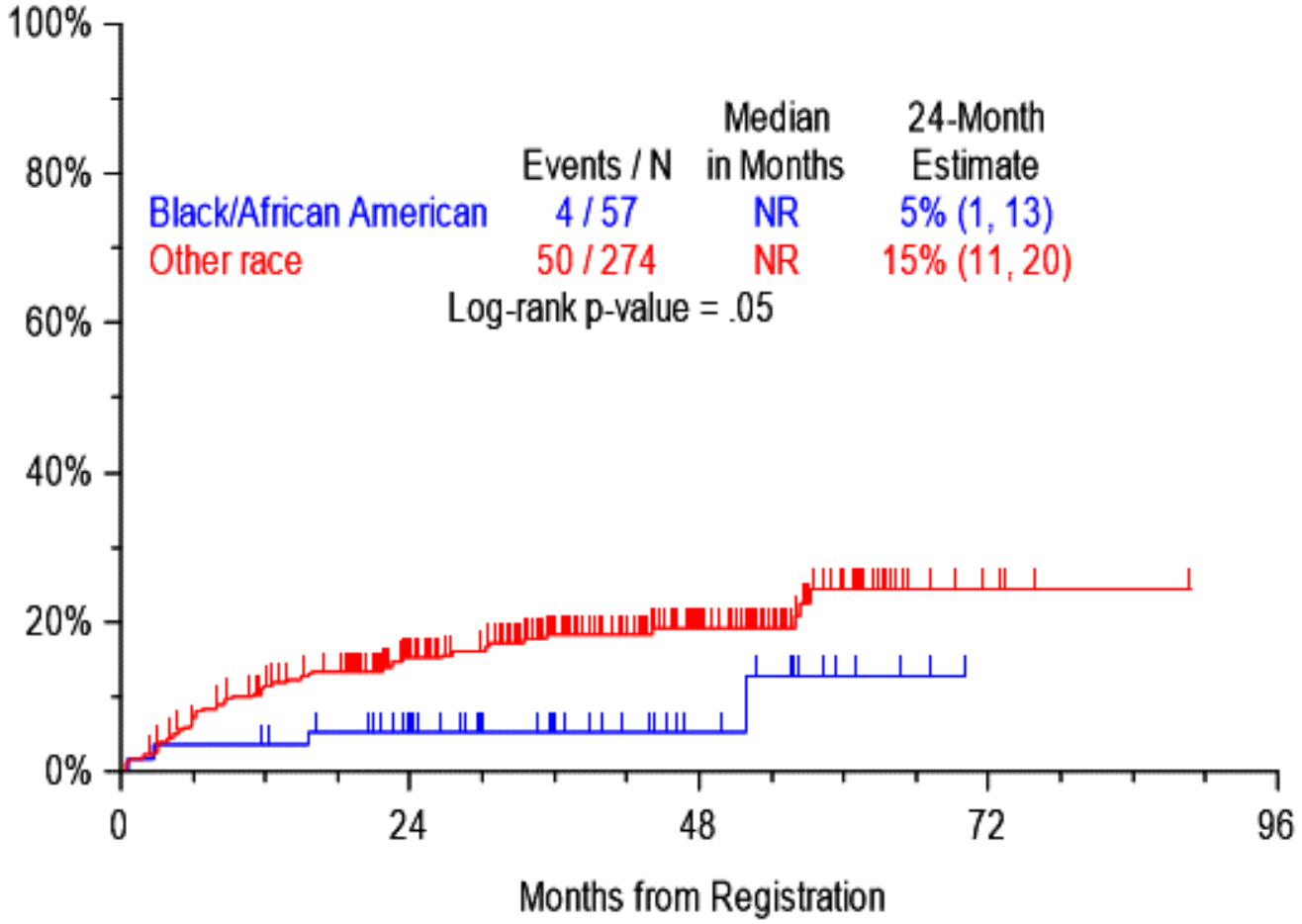
Sagar Lonial, MD
Professor and Chair
Department of Hematology and Medical Oncology
Anne and Bernard Gray Professor in Cancer
Chief Medical Officer, Winship Cancer Institute
Emory University School of Medicine

Disparities in Treatment of Black Americans

- Frequency of PCDs are double in AA population vs others (includes precursors such MGUS, SMM, and MM
- Biology and genetics may be very different
- Treatment with novel agents and use of ASCT has become standard of care for newly diagnosed MM[1]
  - However, racial and ethnic minorities receive these treatments at a lower rate than whites[1]
- Evidence suggests that Black patients with MM have the potential to experience similar or better survival than white patients with MM[2]
- Black patients have similar response rates and survival when enrolled in clinical trials, compared with white patients[3,4]

1. Fiala MA, et al. *Clin Lymphoma Myeloma Leuk* 2020;20(10):647-651, 2. Marinac CR, et al. *Blood Cancer J* 2020;10(2):19, 3. Ailawadhi S, et al. *Blood Cancer J* 2018;8(7):67, 4. Ailawadhi S, et al. *Blood Adv* 2019;3(20):2986-2994

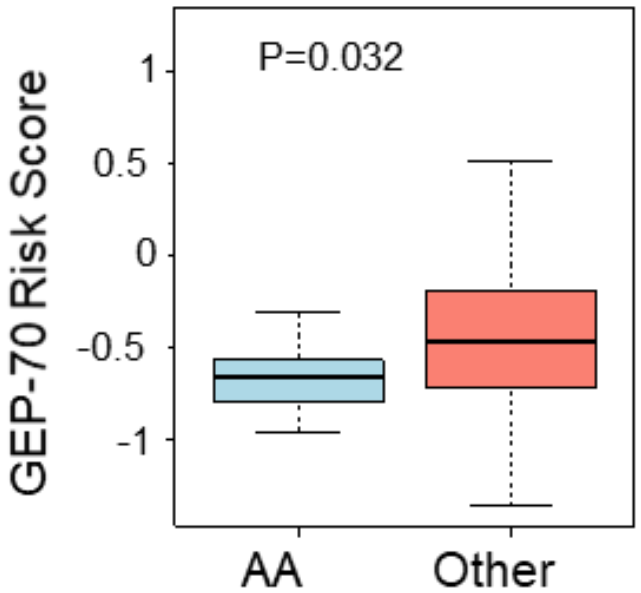
SWOG S0120: Race-dependent Differences In Risk Of Transformation To Clinical MM In A US Cooperative Group Prospective Observational Clinical Trial

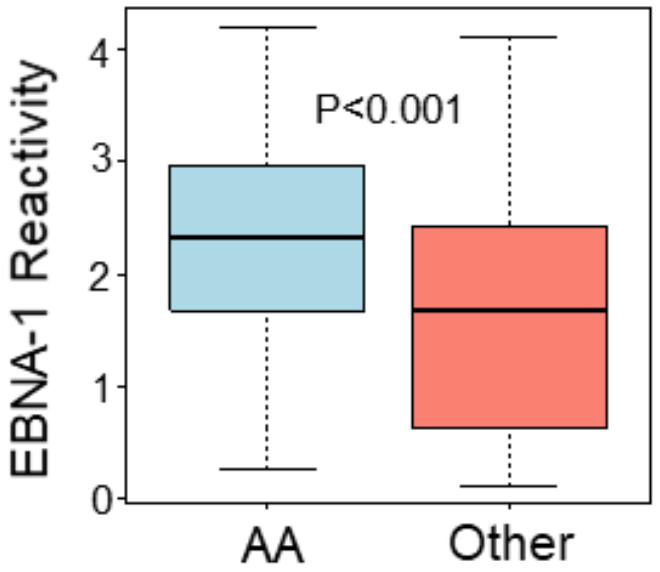


Slide courtesy: Madhav Dhodapkar

Dhodapkar et al. Clin Can Res August 18, 2020; DOI: 10.1158/1078-0432.CCR-20-2119

Race Dependent Differences in Genomic Risk and EBV Exposure

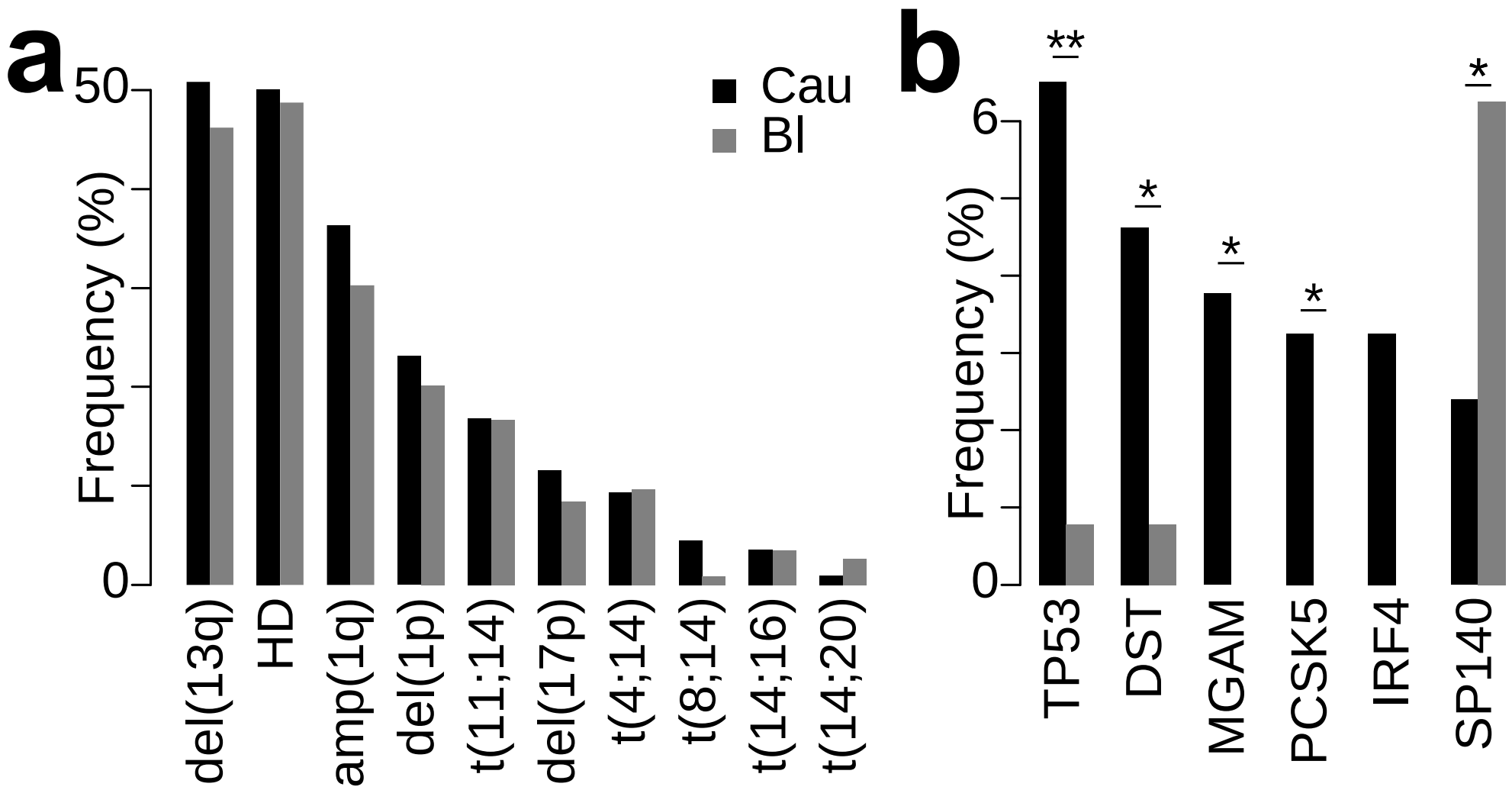




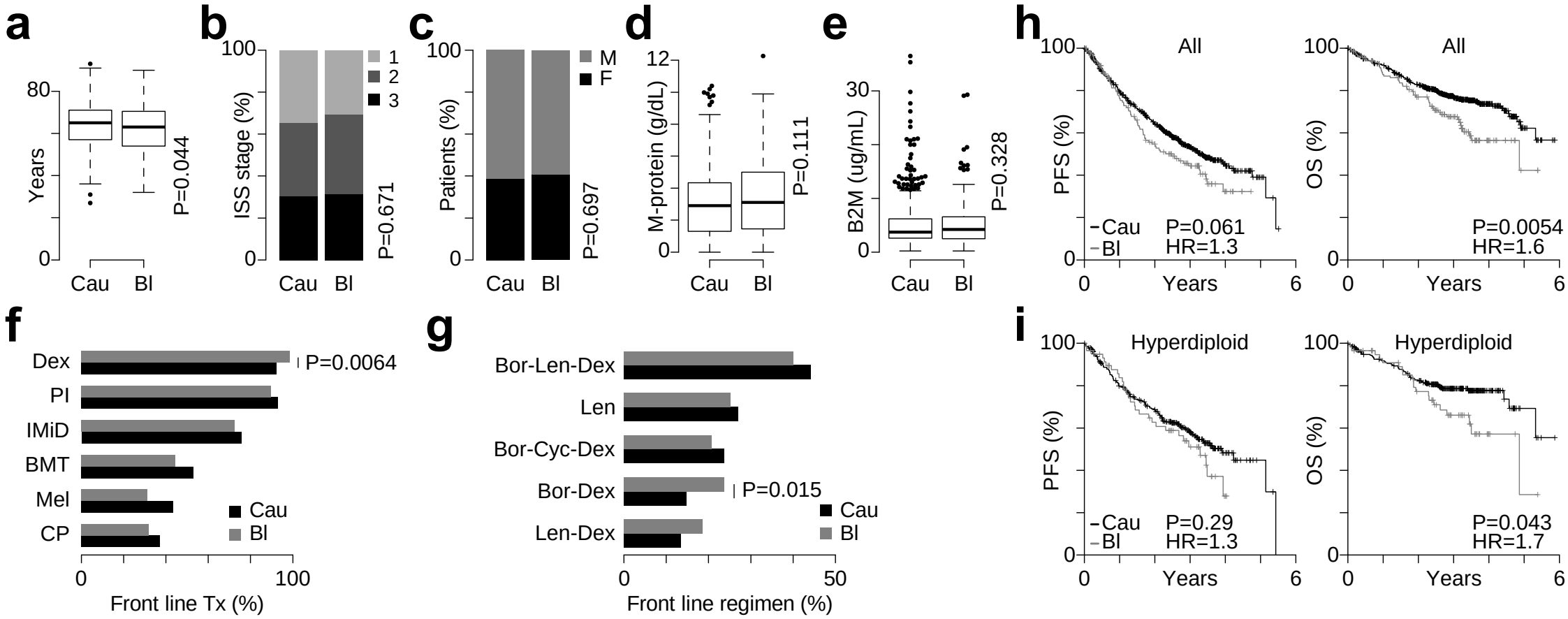
Slide courtesy: Madhav Dhodapkar

Dhodapkar et al. Clin Can Res August 18, 2020; DOI: 10.1158/1078-0432.CCR-20-2119

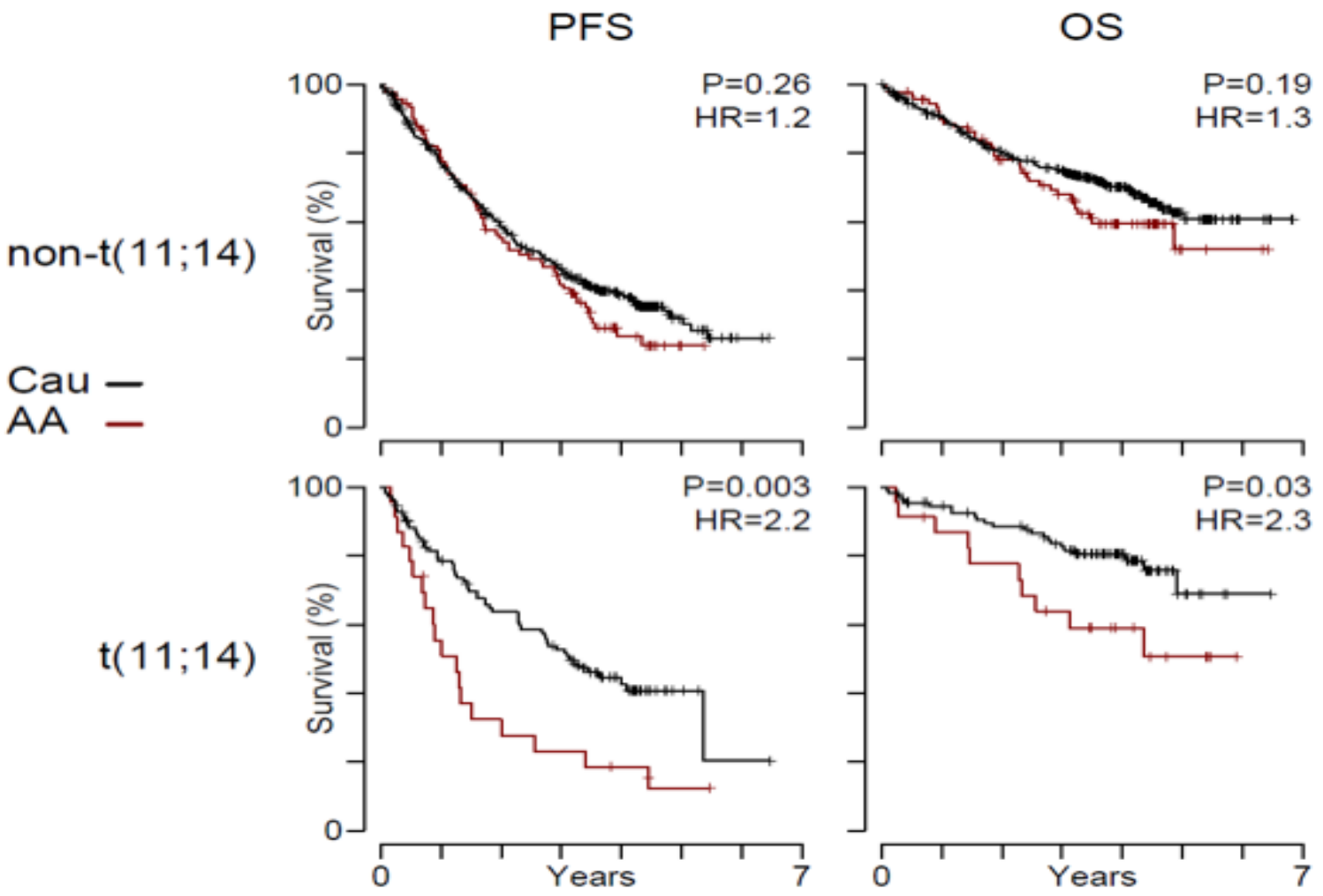
COMPASS trial: Differences in genetics by race



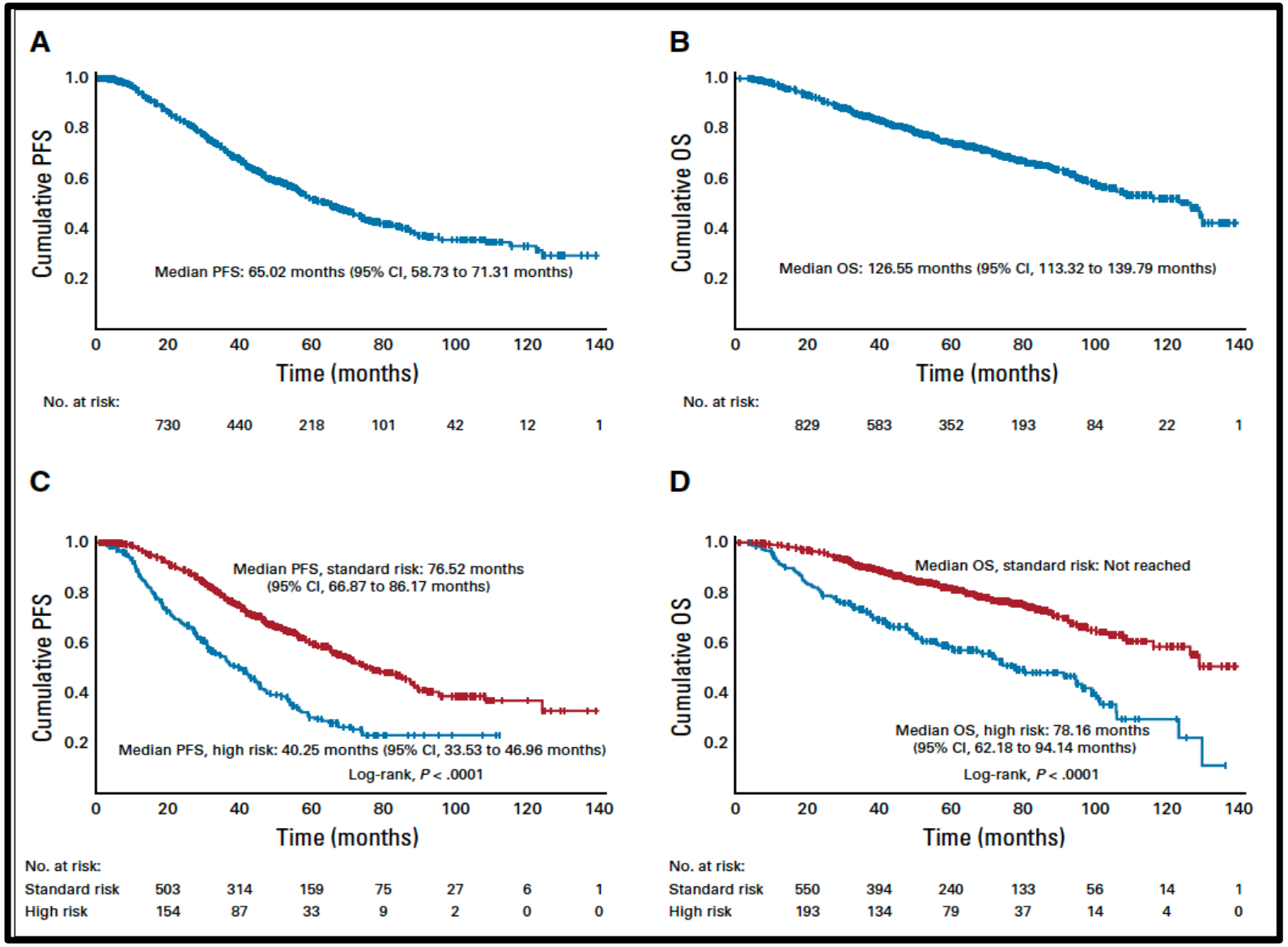
COMPASS trial: Genetics are different and outcomes are treatment dependent by race



Survival of t(11;14) patients in CoMMpass by race: Outcomes are related to access.



The New Benchmark for outcomes: RVD 1000



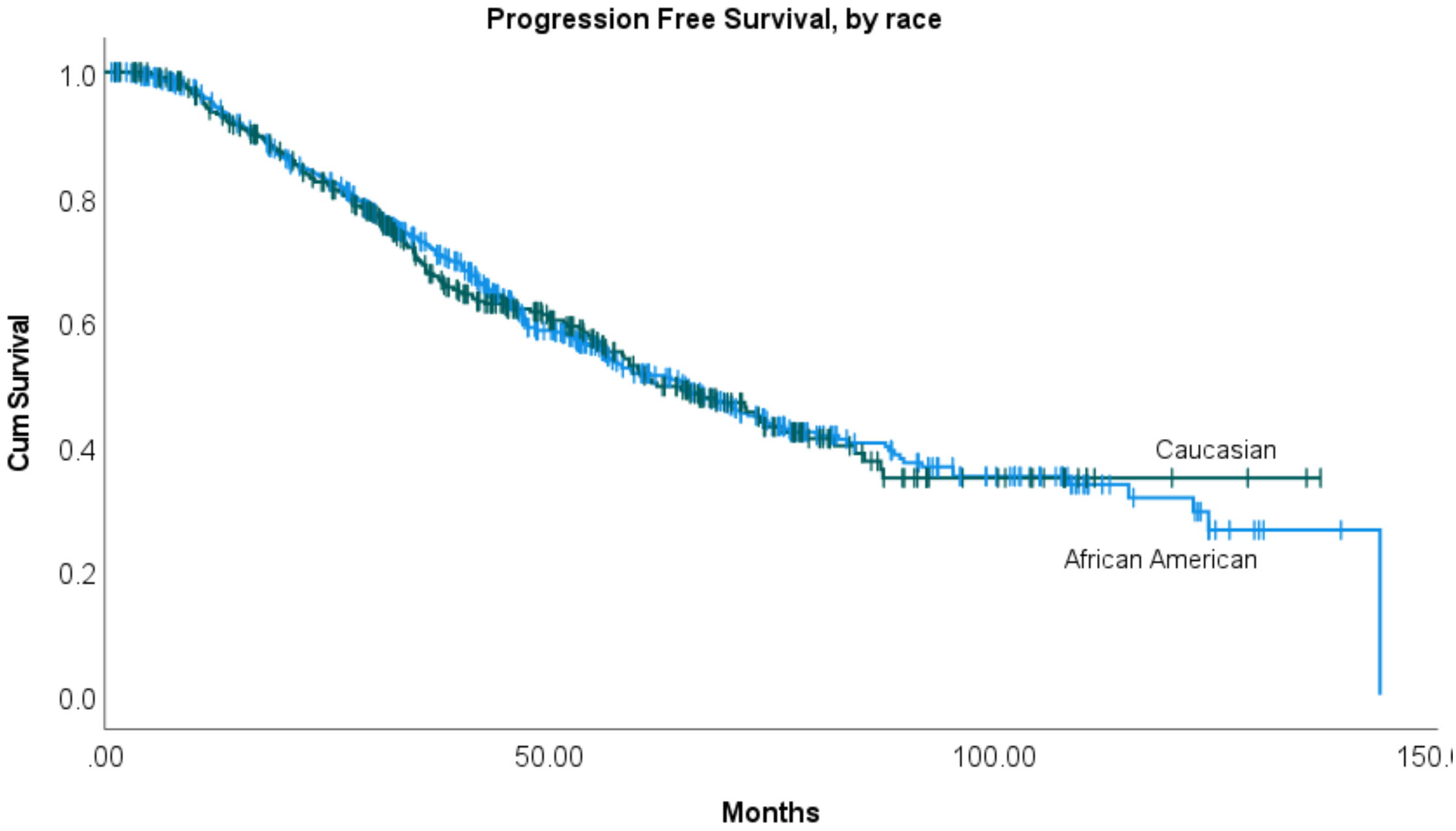
Joseph et al, JCO 2020

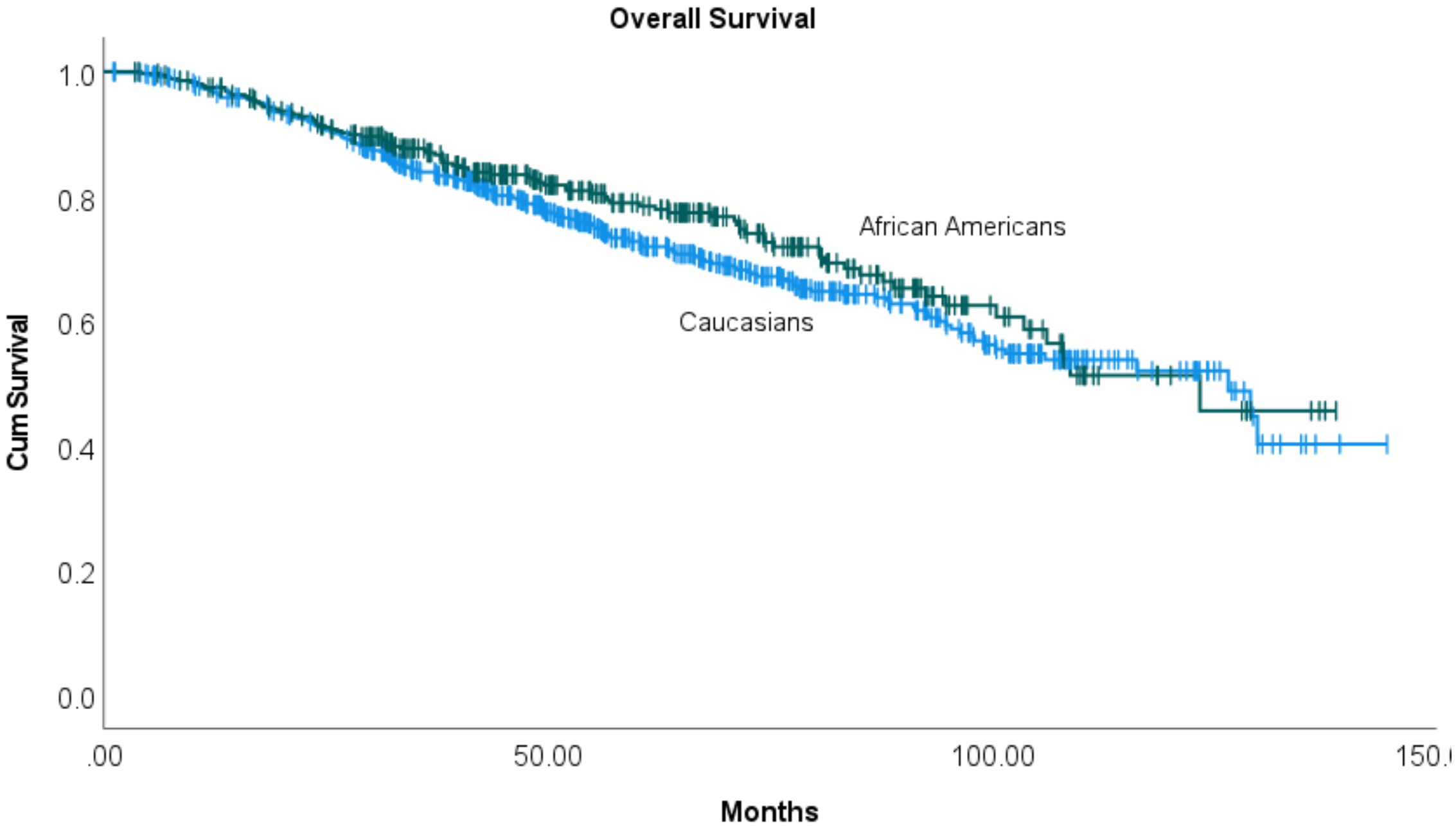
Patient characteristics (RVD 1000)

Variables	Caucasians (N=619)	African-American (N=352)	P-value
Median age at diagnosis	62.60 (16.32-81.52)	57.98 (24.21-83.05)	<0.0001
Median weight (kg)	81.50 (40.10-161.4)	82.6 (44.6-140.5)	0.569
Median BMI	27.3 (16.8-50.6)	29.4 (16.9-53.1)	0.001
Median baseline Hb	10.9 (4.6-18)	10.1 (4.9-16.3)	0.001
Median baseline platelets	216 (45-790)	224 (20-688)	0.501
Median baseline creatinine	1.06 (0.38-14.6)	1.1 (0.3-22.5)	0.365
Median baseline calcium	9.4 (5.5-18)	9.4 (6.7-19.2)	0.983
Median baseline albumin	3.7 (1.4-5.1)	3.6 (1.3-5.5)	0.657
Median LDH	144 (50-533)	156.5 (36-705)	0.574
Median B2M	3.05 (0.43-37.8)	2.96 (0.78-45)	0.517
Age >65	37.9%	27.7%	0.001
BMI >40	20 (4.2%)	20 (7.9%)	0.041
ISS stage 3	105 (22.5%)	67 (25.1%)	0.422
LDH >271	16 (5.8%)	11 (8%)	0.377
Creatinine >2	50 (10.4%)	38 (13.9%)	0.159
Ca >10.5	76 (17.2%)	42 (18.5%)	0.748
Plts <75	4 (0.9%)	11 (4.6%)	0.005

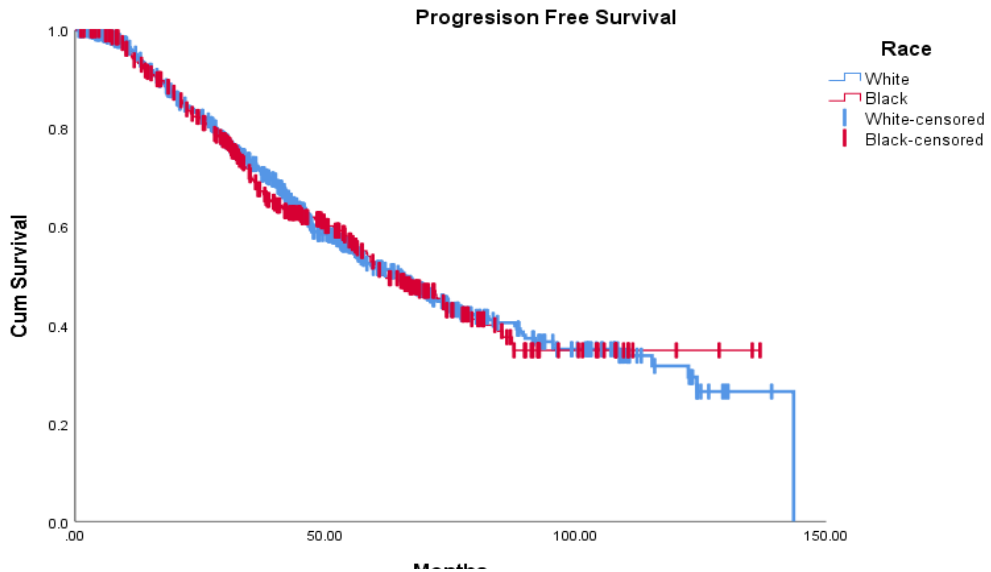
Cytogenetic differences (RVD 1000)

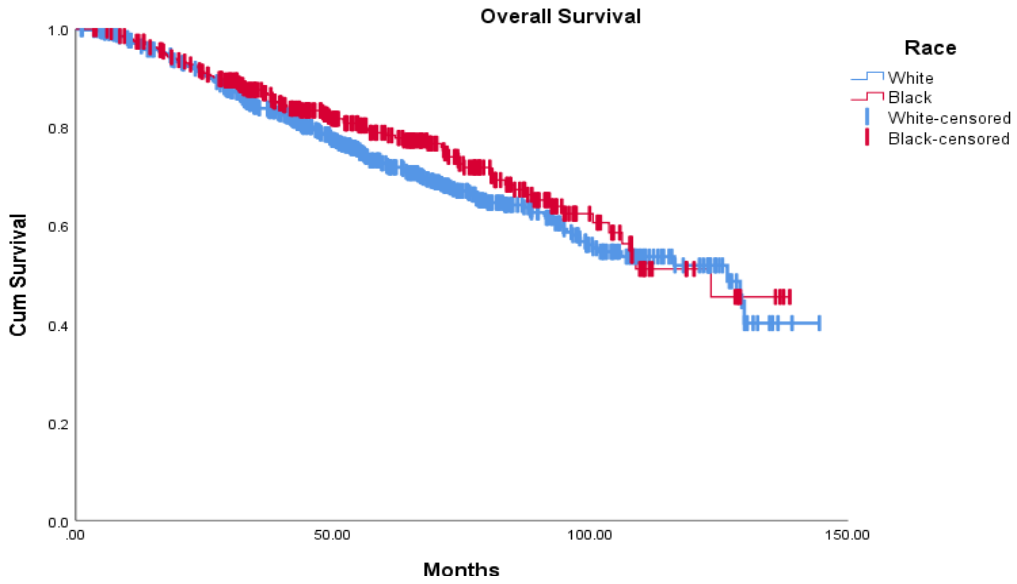
Cytogenetic abnormality	Caucasians (N=619)	African-American (N=352)	P-value
1q gains	111 (18.8%)	37 (10.8%)	0.001
T(11;14)	66 (11.5%)	55 (16.1%)	0.043
T(4;14)	25 (4.3%)	18 (5.3%)	0.512
T(14;16)	16 (2.8%)	10 (2.9%)	0.888
del17p	70 (12.1%)	23 (6.7%)	0.009
del13	168 (29.2%)	70 (20.5%)	0.004

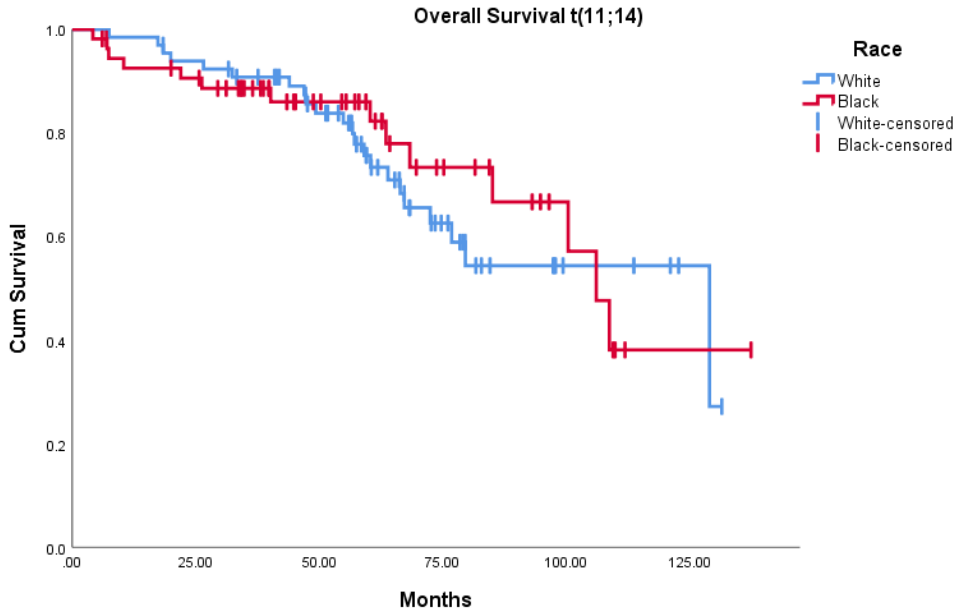

Progression Free Survival, by race
Cum Survival
1.0
0.8
0.6
0.4
0.2
0.0
.00
50.00
100.00
150.
Months
Caucasian
African American

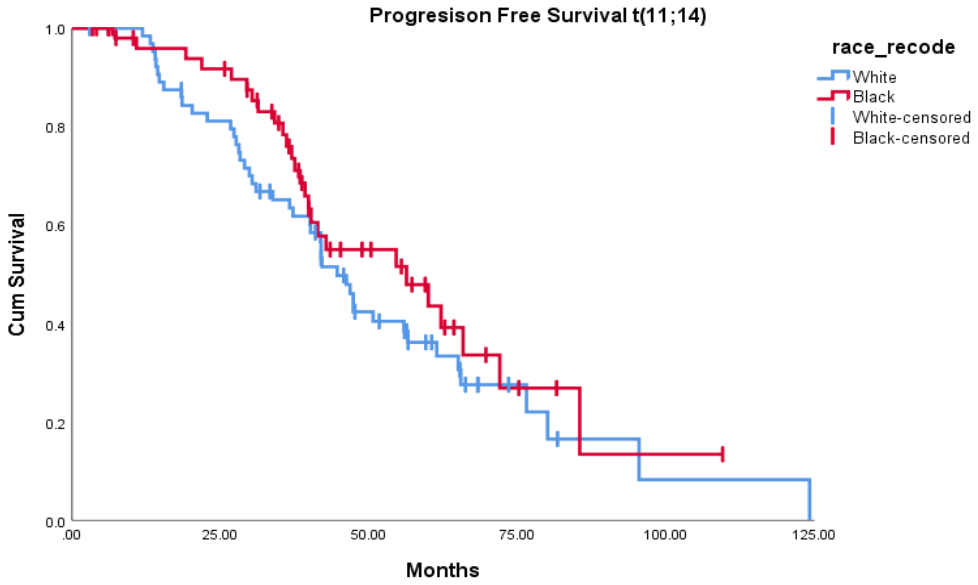

Overall Survival
Cum Survival
1.0
0.8
0.6
0.4
0.2
0.0
African Americans
Caucasians
.00
50.00
100.00
Months

OS and PFS by race for all patient and t(11;14) patients. RVD 1000 series, Joseph et al









Daratumumab + Lenalidomide/Bortezomib/Dexamethasone in African American/Black Patients With Transplant-eligible Newly Diagnosed Multiple Myeloma: Subgroup Analysis of GRIFFIN*

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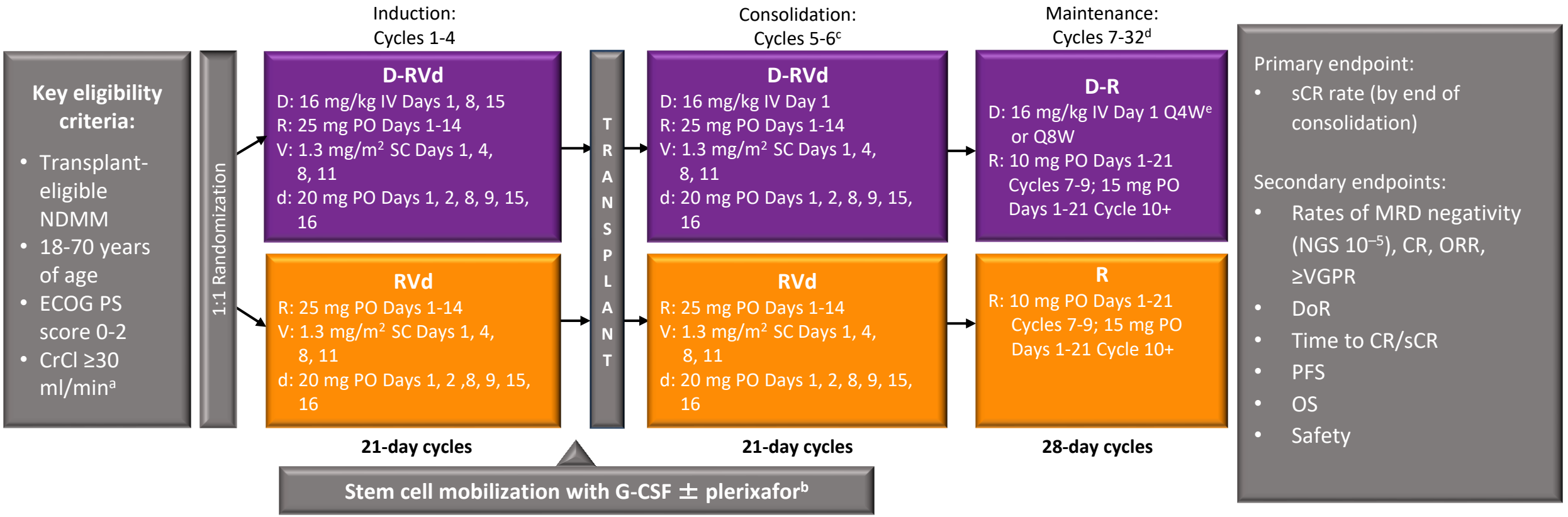
[1]Winship Cancer Institute, Emory University, Atlanta, GA, USA; [2]Wake Forest University School of Medicine, Winston-Salem, NC, USA; [3]University of Chicago Medical Center, Chicago, IL, USA; [4]Division of Hematologic Malignancies and Cellular Therapeutics (HMCT), University of Kansas Medical Center, Kansas City, MO, USA; [5]University of Maryland, Greenbaum Cancer Center, Baltimore, MD, USA; [6]Tisch Cancer Institute, Mount Sinai School of Medicine, New York, NY, USA; [7]Dana-Farber Cancer Institute, Boston, MA, USA; [8]Janssen Research & Development, LLC, Titusville, NJ, USA; [9]Janssen Global Medical Affairs, Horsham, PA, USA; [10]Janssen Research & Development, LLC, Leiden, The Netherlands; [11]Janssen Scientific Affairs, LLC, Horsham, PA, USA; [12]Levine Cancer Institute, Atrium Health, Charlotte, NC, USA

Presented at the 8th Annual Meeting of the Society of Hematologic Oncology (SOHO); September 9-12, 2020

*ClinicalTrials.gov Identifier: NCT02874742.

GRIFFIN: Randomized Phase

- Phase 2 study of D-RVd vs RVd in transplant-eligible NDMM, 35 sites in US with enrollment from 12/2016 to 4/2018
- The prespecified primary endpoint occurred at a median follow-up of 13.5 months, when all randomized patients completed consolidation treatment
  - Results here are based on longer follow-up (median, 22.1 months)



NDMM, newly diagnosed multiple myeloma; ECOG, Eastern Cooperative Oncology Group; CrCl, creatinine clearance; D-RVd, daratumumab plus lenalidomide/bortezomib/dexamethasone; D, daratumumab; R, lenalidomide; V, bortezomib; d, dexamethasone; RVd, lenalidomide/bortezomib/dexamethasone; IV, intravenous; PO, oral; SC, subcutaneous; D-R, daratumumab plus lenalidomide; Q4W, every 4 weeks; Q8W, every 8 weeks; sCR, stringent complete response; MRD, minimal residual disease; NGS, next-generation sequencing; ORR, overall response rate; CR, complete response; VGPR, very good partial response; DoR, duration of response; PFS, progression-free survival; OS, overall survival; G-CSF, granulocyte colony-stimulating factor. [a]Lenalidomide dose adjustments were made for patients with CrCl ≤50 mL/min. [b]Cyclophosphamide-based mobilization was permitted if unsuccessful. [c]Consolidation was initiated 60-100 days post-transplant. [d]Patients who complete maintenance cycles 7-32 may continue single-agent lenalidomide thereafter. [e]Protocol Amendment 2 allowed for the option to dose daratumumab Q4W based on pharmacokinetic results from study SMM2001 (NCT02316106).

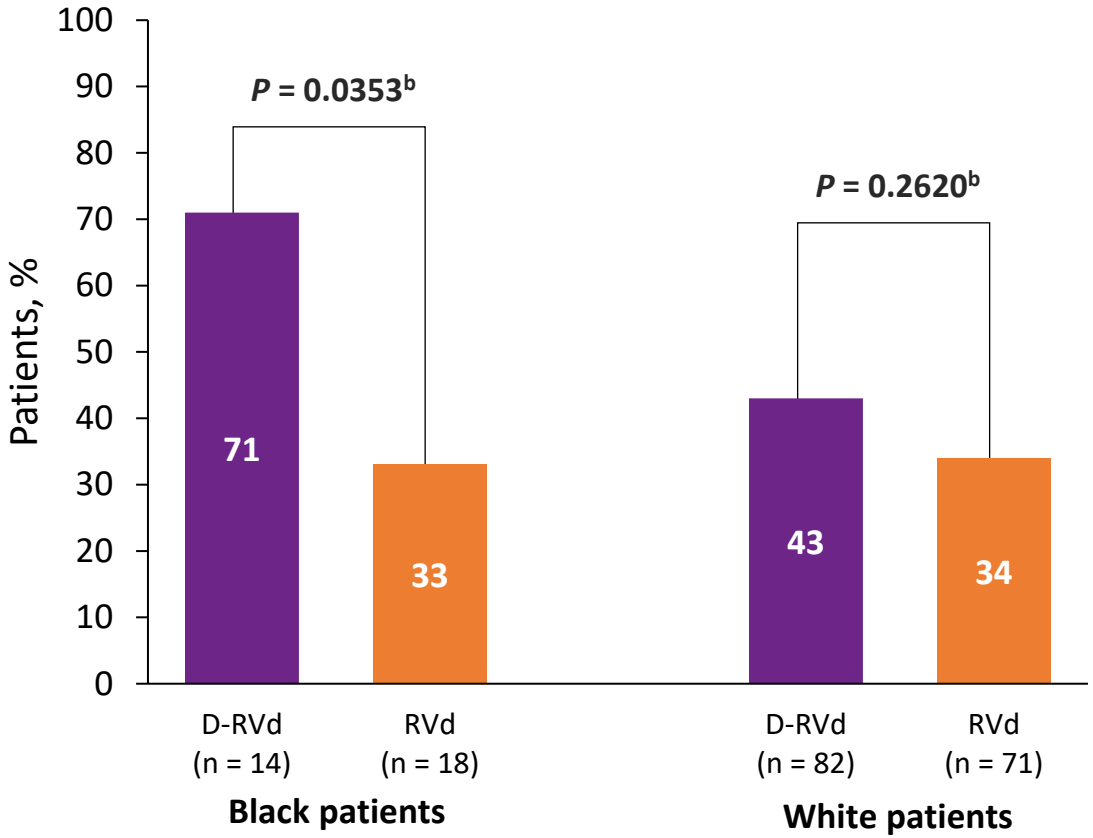
Demographics and Clinical Characteristics (ITT)[a,b]

	Black patients (n = 32)		White patients (n = 161)	
	D-RVd (n = 14)	RVd (n = 18)	D-RVd (n = 85)	RVd (n = 76)
Age, years				
Median (range)	58.5 (29-67)	57 (48-67)	59 (35-70)	61.5 (41-70)
Category, n (%)				
<65	13 (92.9)	15 (83.3)	58 (68.2)	53 (69.7)
≥65	1 (7.1)	3 (16.7)	27 (31.8)	23 (30.3)
Sex, n (%)				
Male	5 (35.7)	8 (44.4)	52 (61.2)	46 (60.5)
Female	9 (64.3)	10 (55.6)	33 (38.8)	30 (39.5)
Cytogenetic risk profile,[c] n (%)	(n = 14)	(n = 16)	(n = 80)	(n = 73)
Standard	11 (78.6)	14 (87.5)	68 (85.0)	63 (86.3)
High risk	3 (21.4)	2 (12.5)	12 (15.0)	10 (13.7)

	Black patients (n = 32)		White patients (n = 161)	
	D-RVd (n = 14)	RVd (n = 18)	D-RVd (n = 85)	RVd (n = 76)
ECOG PS,[d] n (%)	(n = 13)	(n = 18)	(n = 84)	(n = 75)
0	6 (46.2)	7 (38.9)	32 (38.1)	30 (40.0)
1	6 (46.2)	10 (55.6)	42 (50.0)	37 (49.3)
2	1 (7.7)	1 (5.6)	10 (11.9)	8 (10.7)
ISS disease stage,[e] n (%)				
I	9 (64.3)	11 (61.1)	40 (47.1)	37 (48.7)
II	3 (21.4)	4 (22.2)	32 (37.6)	27 (35.5)
III	2 (14.3)	3 (16.7)	12 (14.1)	10 (13.2)
Missing	0	0	1 (1.2)	2 (2.6)

ITT, intent-to-treat; D-RVd, daratumumab plus lenalidomide/bortezomib/dexamethasone; RVd, lenalidomide/bortezomib/dexamethasone; ECOG PS, Eastern Cooperative Oncology Group performance status; ISS, International Staging System. [a]The ITT population was defined as all randomized patients. [b]Demographics and clinical characteristics were based on electronic case report forms completed by study sites. [c]ECOG PS is scored on a scale from 0 to 5, with 0 indicating no symptoms and higher scores indicating increasing disability. [d]ISS disease stage is based on the combination of serum β2-microglobulin and albumin levels. Higher stages indicate more advanced disease. [e]Cytogenetic risk was assessed by fluorescence in situ hybridization (local testing); high risk was defined as the presence of del(17p), t(4;14), or t(14;16) among patients with available cytogenetic risk data.

sCR Rate by End of Post-ASCT Consolidation[a]



sCR by end of consolidation in Black patients

- 71% D-RVd vs 33% RVd
- Odds ratio, 5.00; 95% CI, 1.10–22.82; 2-sided *P* = 0.0353

sCR by end of consolidation in White patients

- 43% D-RVd vs 34% RVd
- Odds ratio, 1.46; 95% CI, 0.76–2.82; 2-sided *P* = 0.2620

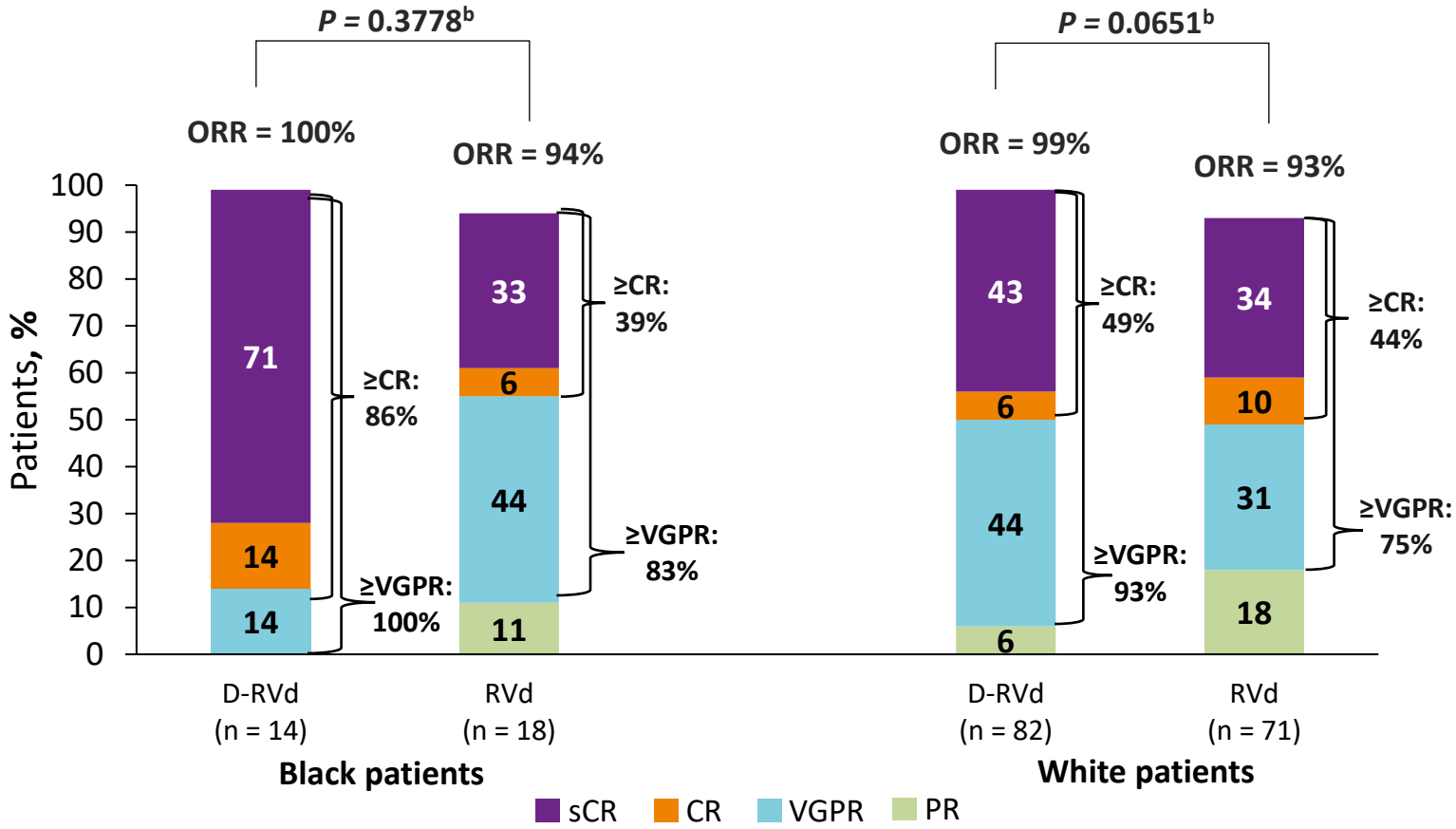
By the end of consolidation, the sCR rate was improved for D-RVd versus RVd in both Black patients and White patients

sCR, stringent complete response.

[a]Responses were assessed by computer algorithm in accordance with IMWG recommendations; included patients in the response-evaluable population (all randomized patients with a confirmed diagnoses of MM, measurable disease at baseline, received ≥1 dose of study treatment, and had ≥1 post-baseline disease assessment).

[b]*P* values were calculated using the Cochran–Mantel–Haenszel chi-square test. Responses were compared using 2-sided *P*-values at a 0.05 alpha level not adjusted for multiplicity.

Depth of Response by End of Post-ASCT Consolidation[a]



- **D-RVd vs RVd (Black patients)[b]**
  - ORR: *P* = 0.3778
  - ≥VGPR: *P* = 0.1143
  - ≥CR: *P* = 0.0085
- **D-RVd vs RVd (White patients)[b]**
  - ORR: *P* = 0.0651
  - ≥VGPR: *P* = 0.0023
  - ≥CR: *P* = 0.5280

The overall response rate, rate of ≥CR, and rate of ≥VGPR were improved for D-RVd vs RVd in Black patients

ORR, overall response rate; CR, complete response; VGPR, very good partial response; sCR, stringent complete response; PR, partial response; D-RVd, daratumumab plus lenalidomide/bortezomib/dexamethasone; RVd, lenalidomide/bortezomib/dexamethasone; IMWG, International Myeloma Working Group. [a]Responses were assessed by computer algorithm in accordance with IMWG recommendations; included patients in the response-evaluable population (all randomized patients with a confirmed diagnoses of MM, measurable disease at baseline, received ≥1 dose of study treatment, and had ≥1 post-baseline disease assessment).

[b]*P* values were calculated with the use of the Cochran–Mantel–Haenszel chi-square test. Responses were compared using 2-sided *P*-values at a 0.05 alpha level not adjusted for multiplicity.

Most Common Hematologic Any Grade (≥30%) and Grade 3 or 4 (≥20%) TEAEs[a]

	Black patients				White patients			
	D-RVd (n = 14)		RVd (n = 18)		D-RVd (n = 83)		RVd (n = 74)	
Adverse event, n (%)	Any grade	Grade 3/4	Any grade	Grade 3/4	Any grade	Grade 3/4	Any grade	Grade 3/4
Hematologic								
Neutropenia	8 (57)	7 (50)	6 (33)	4 (22)	48 (58)	34 (41)	22 (30)	12 (16)
Anemia	7 (50)	2 (14)	7 (39)	3 (17)	28 (34)	7 (8)	22 (30)	3 (4)
Leukopenia	6 (43)	3 (21)	8 (44)	1 (6)	29 (35)	13 (16)	17 (23)	3 (4)
Thrombocytopenia	6 (43)	4 (29)	7 (39)	2 (11)	37 (45)	12 (15)	26 (35)	6 (8)
Lymphopenia	5 (36)	4 (29)	9 (50)	7 (39)	25 (30)	19 (23)	16 (22)	12 (16)

- The rate of grade 3 or 4 TEAEs in the D-RVd versus RVd groups was 79% versus 83% for Black patients, respectively, and 83% versus 76% for White patients

Higher rates of grade 3/4 neutropenia, leukopenia, and thrombocytopenia were seen for D-RVd in Black and White subgroups

TEAE, treatment-emergent adverse event.

[a]The safety analysis population included all randomized patients who received ≥1 dose of study treatment; the analysis was according to treatment received.

Additional Safety Results

- TEAEs leading to treatment discontinuation occurred in 36% and 28% of Black patients in the D-RVd and RVd groups, respectively, and in 11% and 16% of White patients
  - Among Black patients, 5 patients in each treatment arm discontinued R, V, or d, most frequently due to peripheral neuropathy or neuralgia; none discontinued D
  - Among White patients, 9 patients in the D-RVd arm and 12 patients in the RVd arm discontinued R, V, or d, most frequently due to peripheral neuropathy or pneumonia;
    1 patient discontinued D due to bacterial pneumonia
- Serious AEs occurred in 36% and 56% of Black patients in the D-RVd and RVd groups, respectively, and in 39% and 49% of White patients
- Infusion-related reactions (IRRs) to daratumumab occurred in 29% (n = 4) of Black patients and 45% (n = 37) of White patients; IRRs were generally mild (grade 1 or 2)
- No AEs led to death in either subgroup

Conclusions

- D-RVd versus RVd as induction and consolidation therapy improved depth of response, including the rate of sCR and MRD negativity, in Black patients with NDMM
  - Daratumumab plus lenalidomide maintenance therapy further improved depth of response
  - These results support D-RVd as a potential new standard of care for Black patients with transplant-eligible NDMM
  - Larger studies are needed to better define the magnitude of daratumumab benefit in Black patients
- The safety profile of D-RVd in Black patients was generally consistent with that in White patients

Overall, improved recruitment of Black patients in clinical trials is needed to understand disease biology and response to therapy among racial groups

Patient characteristics CART

Variables	Caucasians (N=23)	African-American (N=13)	P-value
Median age at diagnosis	52.23 (30.12-74.28)	48.43 (32.5-63.27)	0.298
Median age at CART	58.87 (36.58-78.5)	53.29 (41.84-67.48)	0.298
Median prior lines of therapy	6 (1-14)	5 (1-11)	0.729
Median CART target dose	300 (300-600) 10^6 CAR T-cells	300 (167-600) 10^6 CAR T-cells	
Median baseline Ferritin	503 (70-3399)	134 (16-7127)	0.083
Median baseline CRP	7 (1-83.9)	3.1 (1-45.3)	0.729
Median baseline Fibrinogen	357.5 (166-727)	293 (218-490)	0.105
Median baseline D-Dimer	1018 (220-13520)	851 (236-14494)	0.729
Median hospitalization	14 (7-21)	14 (7-28)	0.679

Safety CART

Variables	Caucasians (N=23)	African-American (N=13)	P-value
CRS (any grade)	82.6%	53.8%	0.064
CRS (≥ grade 2)	39.1%	23.1%	0.326
Median CRS duration	3 (1-17)	2 (1-4)	0.19
Neurotoxicity (any grade)	34.8%	15.4%	0.212
Neurotoxicity (≥ grade 2)	17.4%	7.7%	0.419
Median neurotoxicity duration	5 (1-11)	13 (1-25)	1.00

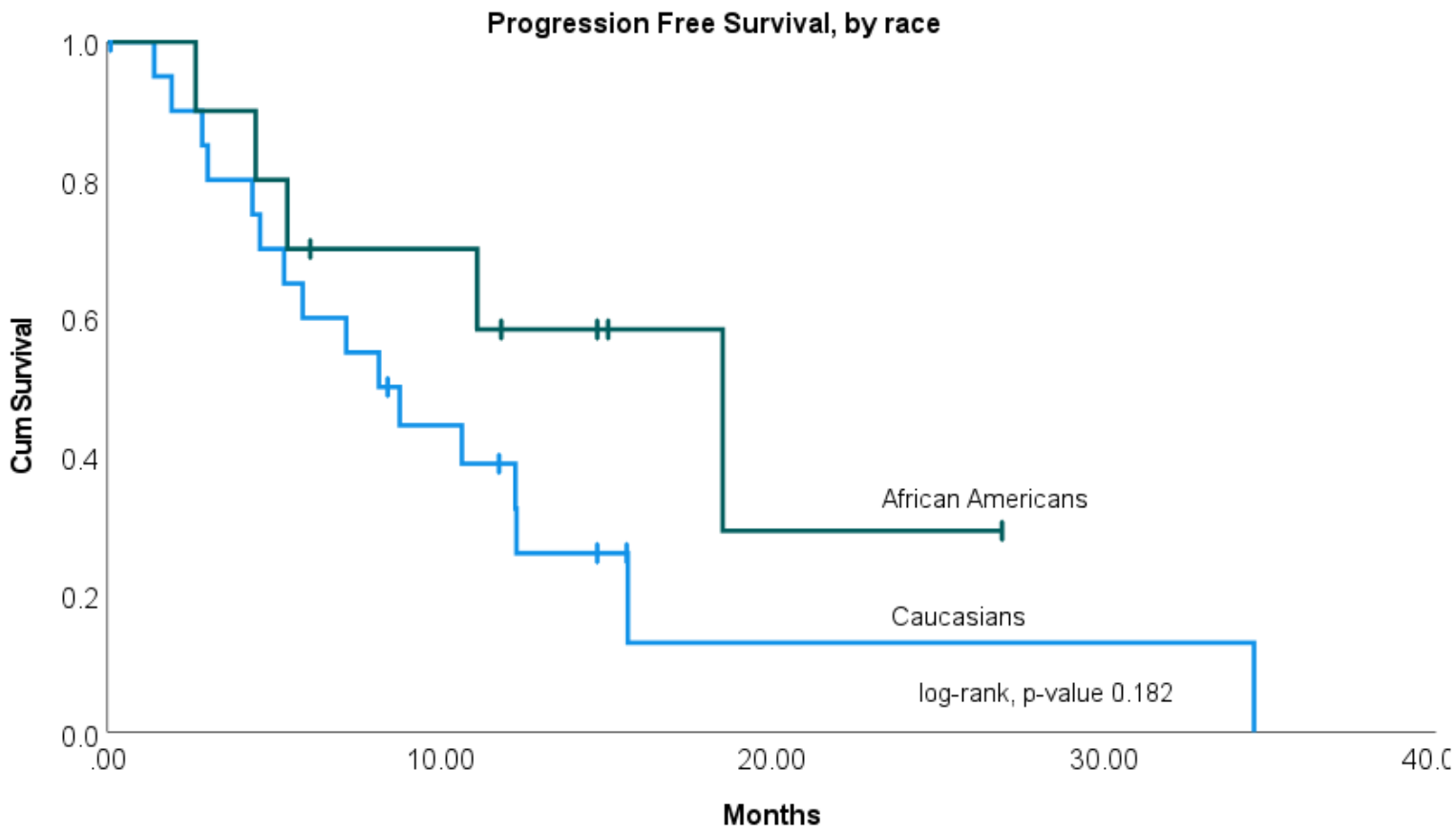
- Development of any grade cytokine release syndrome (CRS) occurred in 74.4% of patients, was numerically higher in Caucasians (C: 82.6% vs AA: 53.8%, p=0.064).
- Grade ≥2 CRS requiring intervention with IL-6 receptor monoclonal antibody occurred in 35.9% patients (C: 39.1% vs AA: 23.1%, p=0.326).
- Development of any grade neurotoxicity occurred in 25.6% of patients (C: 34.8% vs AA: 15.4%, p=0.212).
- Grade ≥2 neurotoxicity occurred in 12.8% patients (C: 17.4% vs AA: 7.7%, p=0.419).

Efficacy CART

Variables	Caucasians (N=23)	African-American (N=13)	P-value
ORR	77.3%	84.6%	0.711
≥VGPR rate	72.7%	69.2%	0.667
≥CR rate	36.3%	23.1%	0.703

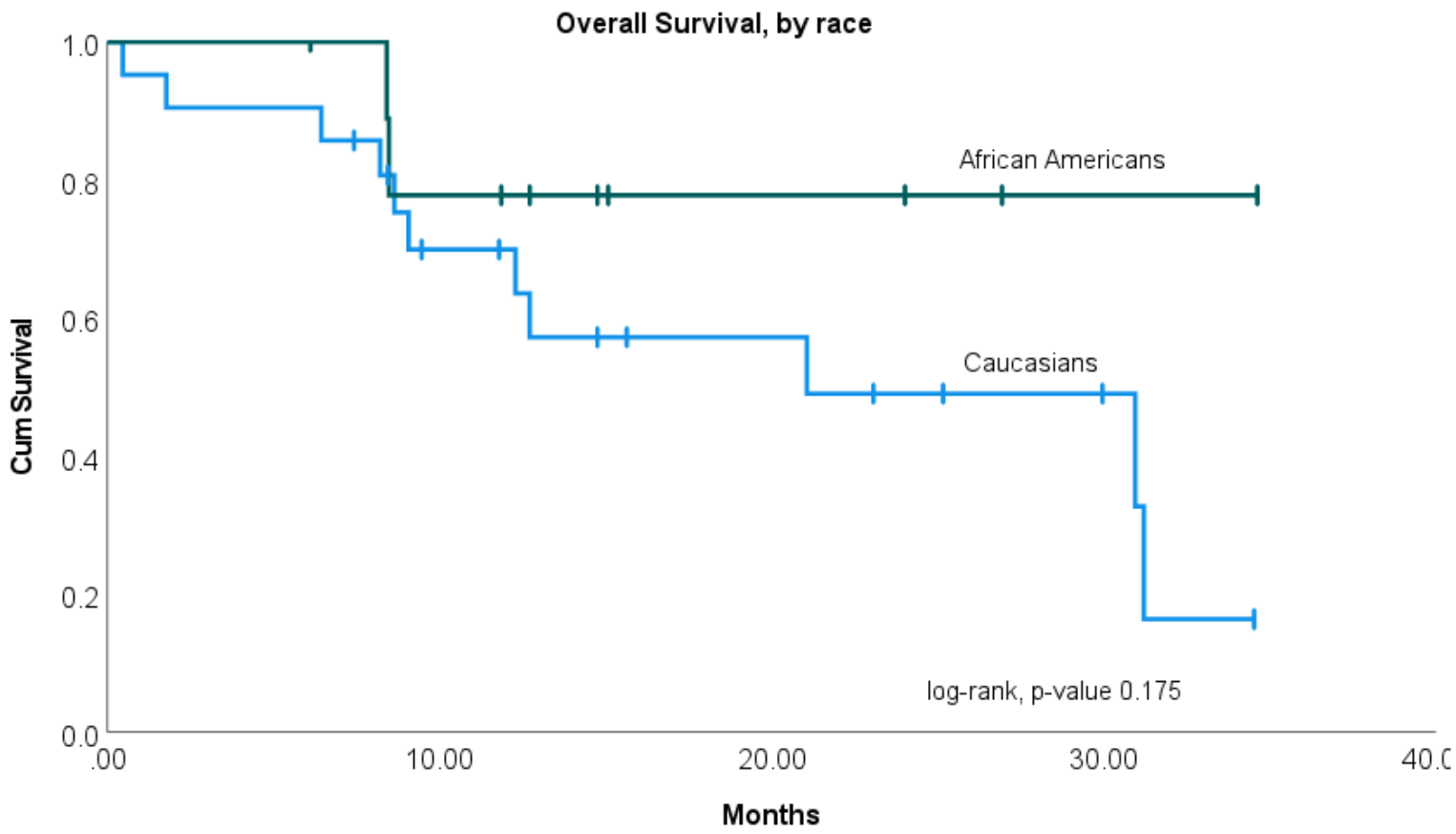
- Overall response rate (ORR) (C: 77.3% vs AA 84.6%, p=0.711)
- ≥ very good partial response (VGPR) rates (C: 72.7% vs AA 69.2%, p=0.667)
- ≥complete response (CR) rates (C: 36.3% vs AA 23.1%, p=0.703).
- The median PFS numerically favored AA patients (C: 8.18 m vs AA: 18.53, p=0.182, median f/u 15.1 months)
- The median OS numerically favored AA patients (C: 21.06 m vs AA: NR, p=0.175, median f/u 21.06 months)

Progression Free Survival



Progression Free Survival, by race, median follow up 15.1 months: median PFS for whites – 8.18 months (95% CI 4.84 - 11.52) and for African Americans – 18.53 months (95% CI 7.53 -29.53), p-value 0.182

Overall Survival



Overall Survival, by race, median follow up 23.1 months: median OS for whites – 21.06 months (95% CI 2.72 - 39.41) and for African Americans – NR, p-value 0.175

Conclusions

- The biology of MM is likely very different based on race, and this may explain some of the differences in frequency of PCD being higher in the AA population
- Outcomes are dependent upon access.
- Precision medicine is an important part of this process and leads to true targeted therapy.
- Specific trial and tissue analysis based on race are critical to understanding how to optimize treatment for all patients.

Patients and Families

Thanks to:

Jonathan Kaufman
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IMS

Golfers Against Cancer
T.J. Martell Foundation

And Many Others who are part of the B-cell Team

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Disparities in Multiple:
A Focus on Multiple Myeloma

BioAscend Webinar

June 2021

Joseph Mikhael, MD, MEd, FRCPC
Chief Medical Officer, International Myeloma Foundation
Professor, Translational Genomics Research Institute (TGen)
City of Hope Cancer Center

Important Facts about Myeloma and African Americans

1. Myeloma is the most common hematologic cancer in African Americans

By 2034 it is estimated that African Americans will make up roughly **24% of the newly diagnosed** MM population[1]

1. Rosenberg PS, Barker KA, Anderson WF, et al. Future distribution of multiple myeloma in the United States by sex, age, and race/ethnicity. *Blood.* 2015;125:410-412.

INTERNATIONAL MYELOMA FOUNDATION

Important Facts about Myeloma and African Americans

2. MGUS and Myeloma is TWICE as common in African Americans

African Americans have **>2x the incidence rate** of MM compared to white Americans[1]

1. American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021*.

INTERNATIONAL MYELOMA FOUNDATION

Important Facts about Myeloma and African Americans

3. African Americans are younger at diagnosis by about 5 years

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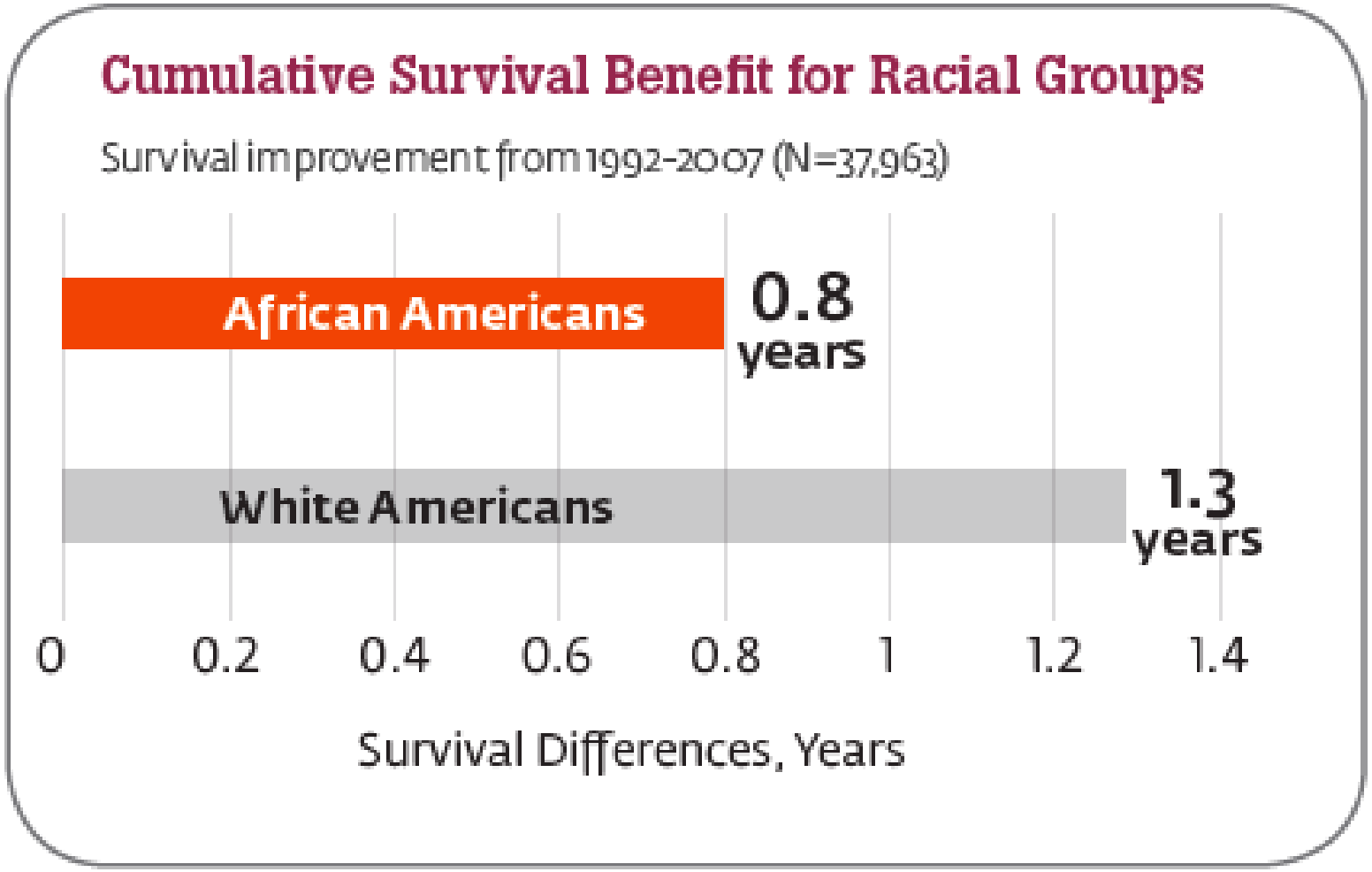
Important Facts about Myeloma and African Americans

4. Survival improvements in myeloma have not been as pronounced in African Americans



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Important Facts about Myeloma and African Americans

5. There is a longer time to diagnosis from the onset of symptoms

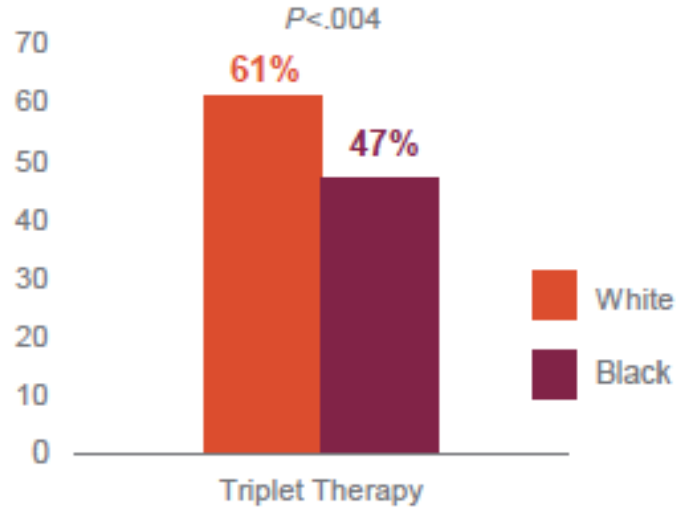
Studies have shown the delay in diagnosis is on average 6 months LONGER in African Americans

Ailawadhi et al. Racial disparities in treatment patterns and outcomes among patients with multiple myeloma: a SEER-Medicare analysis Blood Adv 2019; 3(20): 2986-94

INTERNATIONAL MYELOMA FOUNDATION

Important Facts about Myeloma and African Americans

6. Africans Americans are less likely to receive TRIPLET therapies



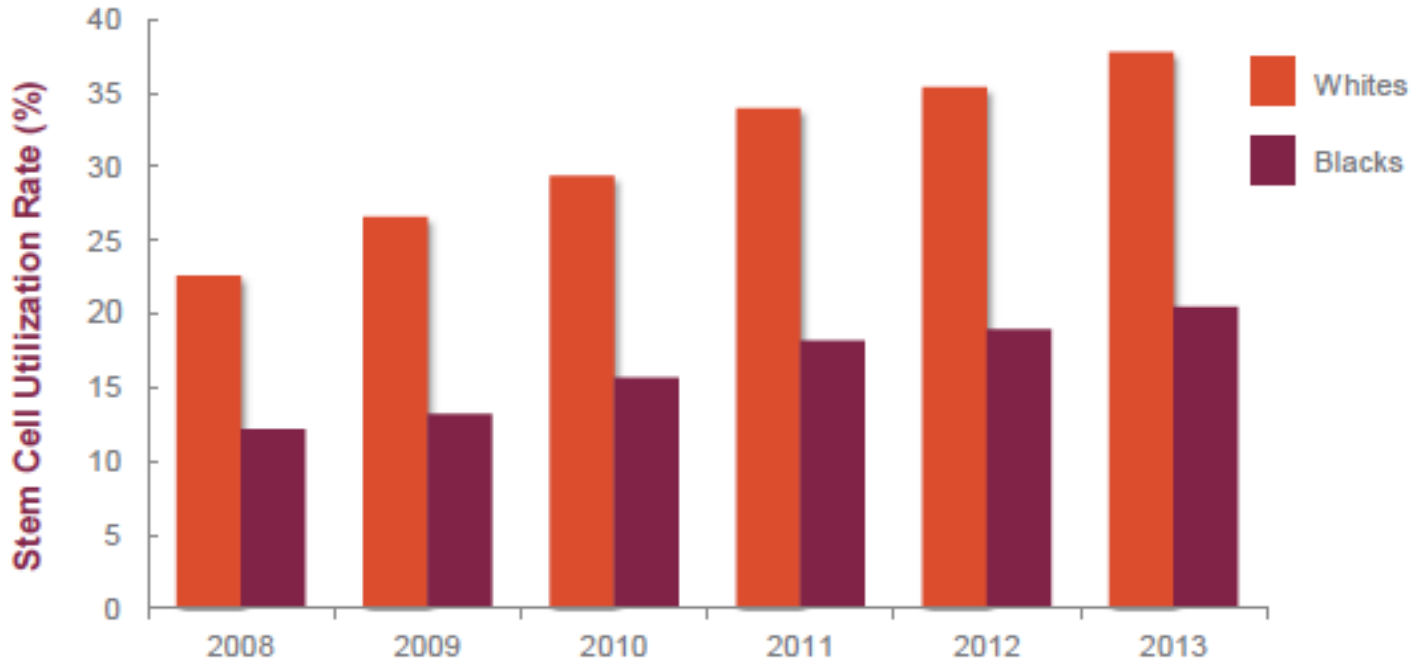
1. NecampJ, et al. *Blood*. 2016;128:4502. **2.** Chehab S, et al. *Cancer*. 2018;124(8):4358-4365

INTERNATIONAL MYELOMA FOUNDATION

Important Facts about Myeloma and African Americans

7. African Americans are less likely to receive Stem Cell Transplants

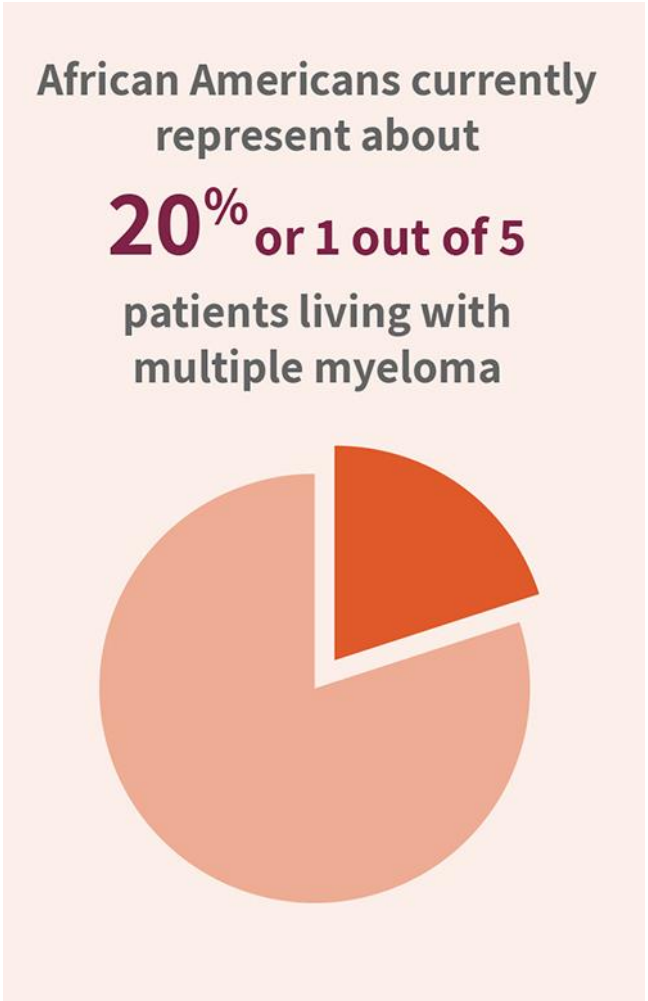
An analysis from the Center for International Blood and Marrow Transplant Research Database (CIBMTR, N=28,450) showed increased utilization differed by race

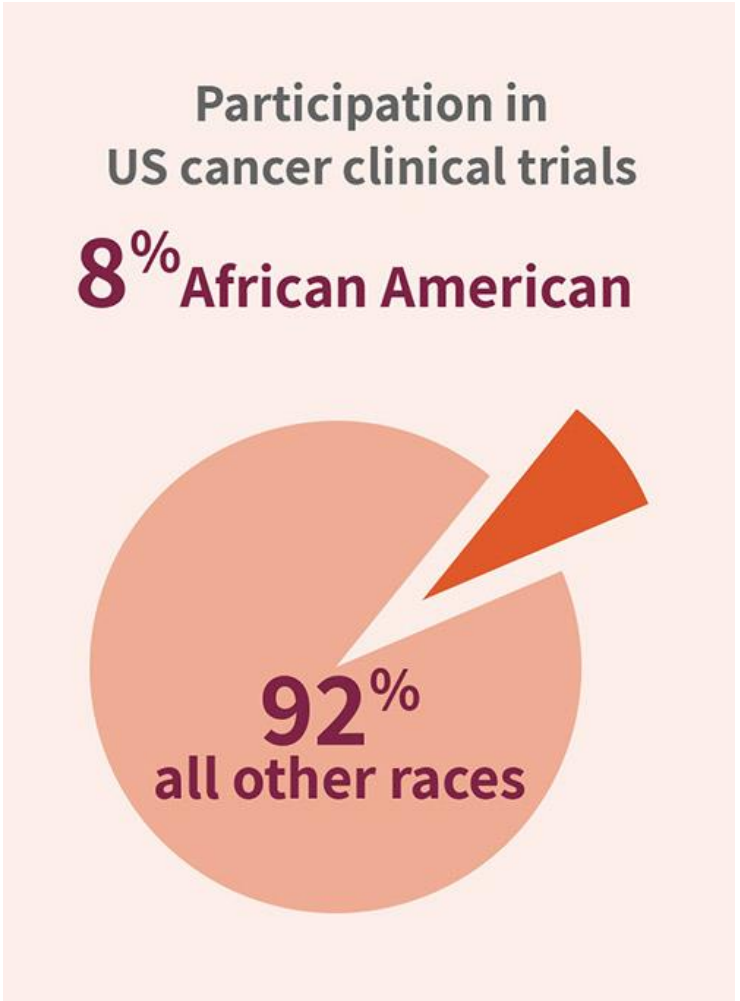


INTERNATIONAL MYELOMA FOUNDATION

Important Facts about Myeloma and African Americans

8. Although African Americans comprise 20% of all MM patients, they only represent 8% of patients on clinical trials





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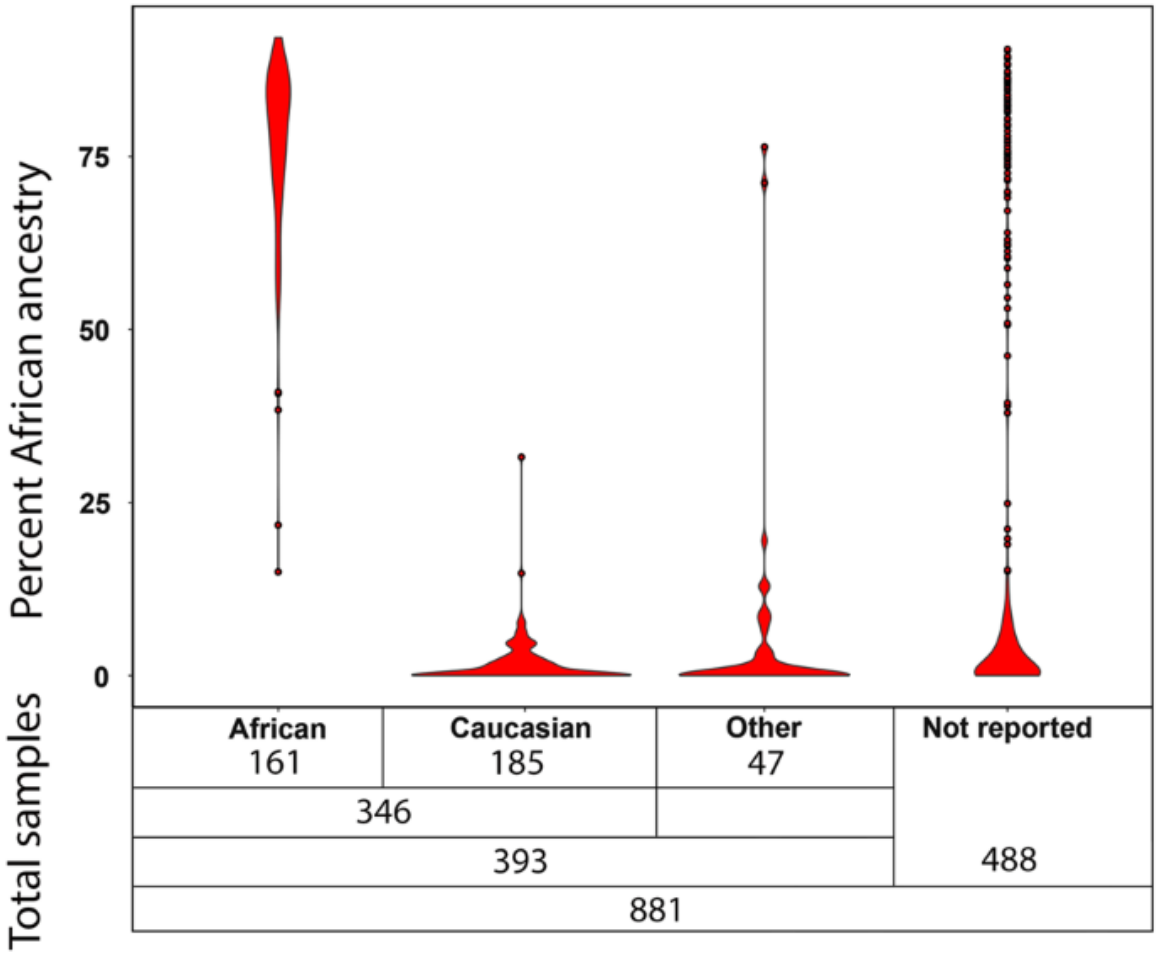
Important Facts about Myeloma and African Americans

9. There are biologic differences in African Americans with MM that may lead to lower risk disease

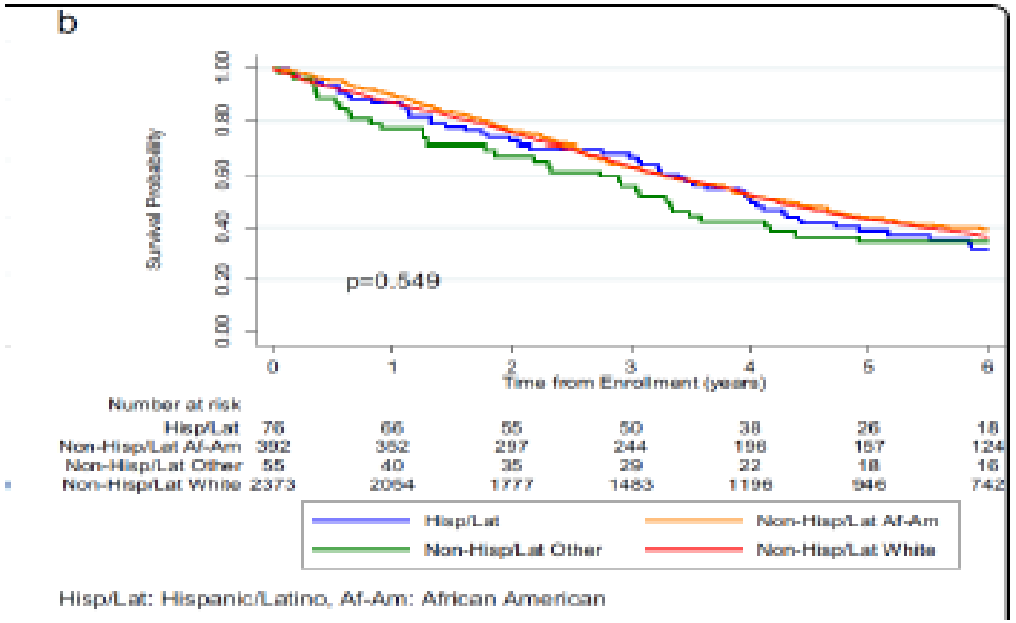


INTERNATIONAL MYELOMA FOUNDATION

Important Facts about Myeloma and African Americans

10. When African Americans receive equal access to care, their survival outcomes are equal, and at times, better than Whites

- **An analysis of patient-level data** from 9 ECOG-ACRIN/SWOG clinical trials in newly diagnosed MM (N=3026) examined clinical trial outcomes by race[1]
- **No significant differences** in OS by race were seen[1]



Hisp/Lat: Hispanic/Latino, Af-Am: African American

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So what can we do about this?

- It is a complex problem and requires a complex solution

- Key themes of Success:
  - Awareness, Education, Advocacy and Empowerment in the **lay** community
  - Education, Cultural Competence, Access in the **medical** community
  - Policy, Expectations, Commitment in the **regulatory and corporate** community

- This is impossible without genuine collaboration between ALL stakeholders

The International Myeloma Foundation African American Initiative

- **The core vision of this initiative is to improve the short- and long-term outcomes of African American patients with myeloma.**

- Increase awareness
- Increase education
- Increase support
- Increase research

INTERNATIONAL MYELOMA FOUNDATION

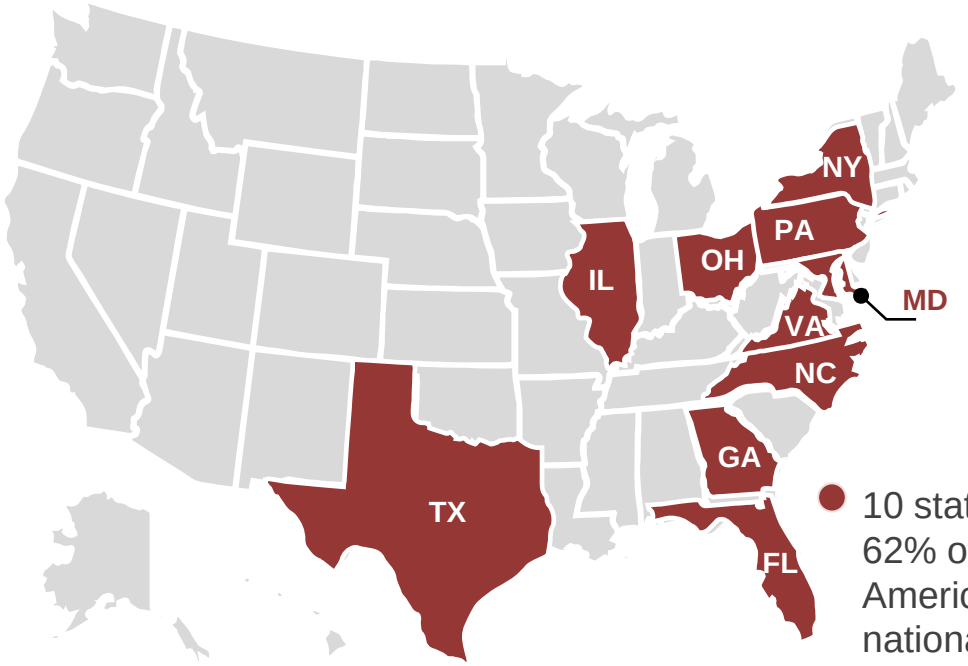
IMF PATIENT EMPOWERMENT MISSION

Advancing early and equitable access to myeloma information, screening and treatment in vulnerable communities worldwide

Why Charlotte:

Charlotte is an ideal location:

- 35% of the population is African American
- A world class myeloma center: Levine Cancer Institute
- An integrated primary care network
- Southern United States are particularly underrepresented in cancer research



GOAL:

Charlotte will provide a template where aspects of the initiative can be reproduced in other cities nationwide


M-POWER
CHARLOTTE
CHANGING THE COURSE OF MYELOMA

M-POWER CHARLOTTE INITIATIVE OBJECTIVES

- **Community Engagement**

Raise awareness about myeloma in medical and non-medical community.

- **Education of Primary Care Community**

Focus on early and accurate diagnosis of myeloma

- **MGUS Screening Study**

Measure true incidence in 20,000 African American patients

Community Workshop
March 20, 2021 10AM ET

M-POWER CHARLOTTE: CHANGING THE COURSE OF MYELOMA

M-POWER CHARLOTTE
CHANGING THE COURSE OF MYELOMA

INTERNATIONAL MYELOMA FOUNDATION

M-POWER CHARLOTTE COMMUNITY WORKSHOP

Saturday March 20, 2021 ~ Agenda

Welcome & Speaker Introductions
Kelly Cox & Dr. Joseph Mikhael, International Myeloma Foundation

Race Matters in Myeloma Care & Survival
Dr. Joseph Mikhael, International Myeloma Foundation

Myeloma for Patients Who Are Just Getting Started
Dr. Joseph Mikhael, International Myeloma Foundation

When Myeloma Comes Back
Dr. Peter Voorhees, Levine Cancer Institute

How to Manage Myeloma Symptoms & Side Effects
Amy Pierre, Memorial Sloan Kettering Cancer Center

Audience Questions

Break
5 minutes

M-Power Charlotte: Changing the Course of Myeloma
Dr. Joseph Mikhael, International Myeloma Foundation

Can We Detect Myeloma Even Sooner?
Dr. Manisha Bhutani, Levine Cancer Institute

Finding Your Voice and Talking with Your Team
Tiffany Williams, Patient Advocate

How Your Healthcare Team Can Help You
Amy Pierre, Memorial Sloan Kettering Cancer Center

Audience Questions

M-Power Charlotte Website: m-powercharlotte.myeloma.org

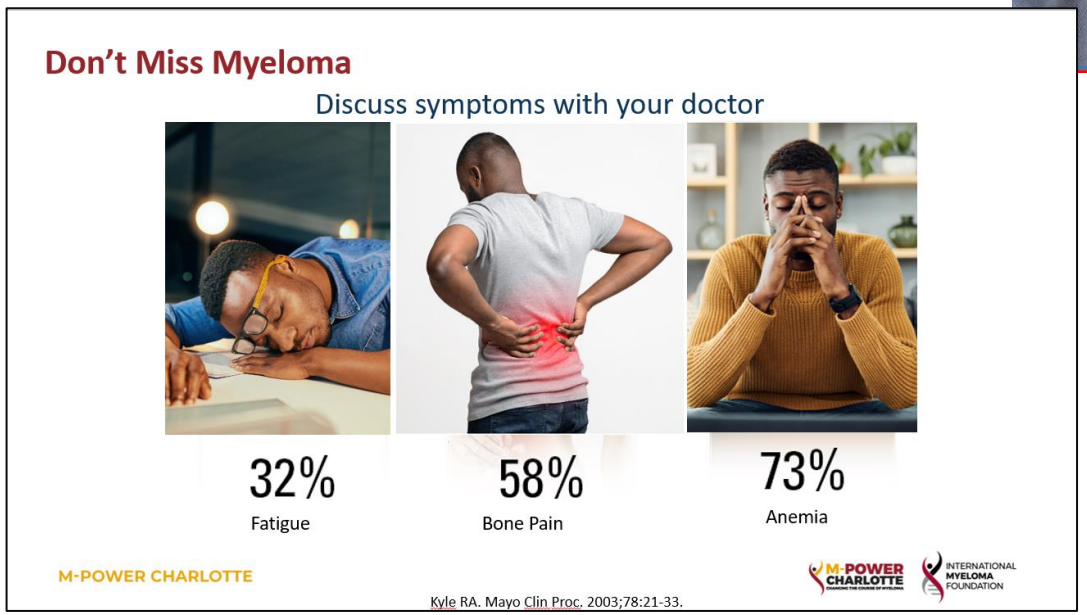
About M-Power Charlotte

The International Myeloma Foundation has joined forces with Atrium Health Levine Cancer Institute's Disparities & Outreach program to empower people in the Charlotte, North Carolina area to help change the course of myeloma. M-Power Charlotte is dedicated to removing barriers to care and improving outcomes in the disease.

We invite you to help achieve these goals by sharing the links in the Myeloma Tool Kit to educational written materials and videos here with friends, family, community groups, and even on your Facebook page!

Community Education

- **Videos like Myeloma Made Simple video**
- **Community slide deck**
- **InfoLine awareness video**
- **Local patient story** (filming pending due to covid)
- **Tip Card Handouts**



M-POWER CHARLOTTE
CHANGING THE COURSE OF MYELOMA

Toolkit

Myeloma Tool Kit

Find a Support Group

Support groups bring together myeloma patients, caregivers, family members & friends. Patients involved in a support group experience more positive outcomes due to their understanding of treatment options and ability to have key conversations with their health-care team.

What is Myeloma?

Multiple myeloma is a cancer of the bone marrow plasma cells. Other names for the disease are "myeloma" and "plasma cell myeloma."

Early Signs of Myeloma

This Tip Card covers early diagnosis and warning signs of multiple myeloma.

Myeloma Tool Kit

M-Power Yourself

To make good decisions about your care with your health-care team, learn as much as you can about myeloma and its treatments.

Caregiver Resources

A comprehensive list of caregiver support and other helpful resources especially for families and caregivers.

Drug Reimbursement Information and Assistance

List of pharma, government and other resources regarding drug reimbursement information and assistance

M-Power Website

Disparities in Treatment

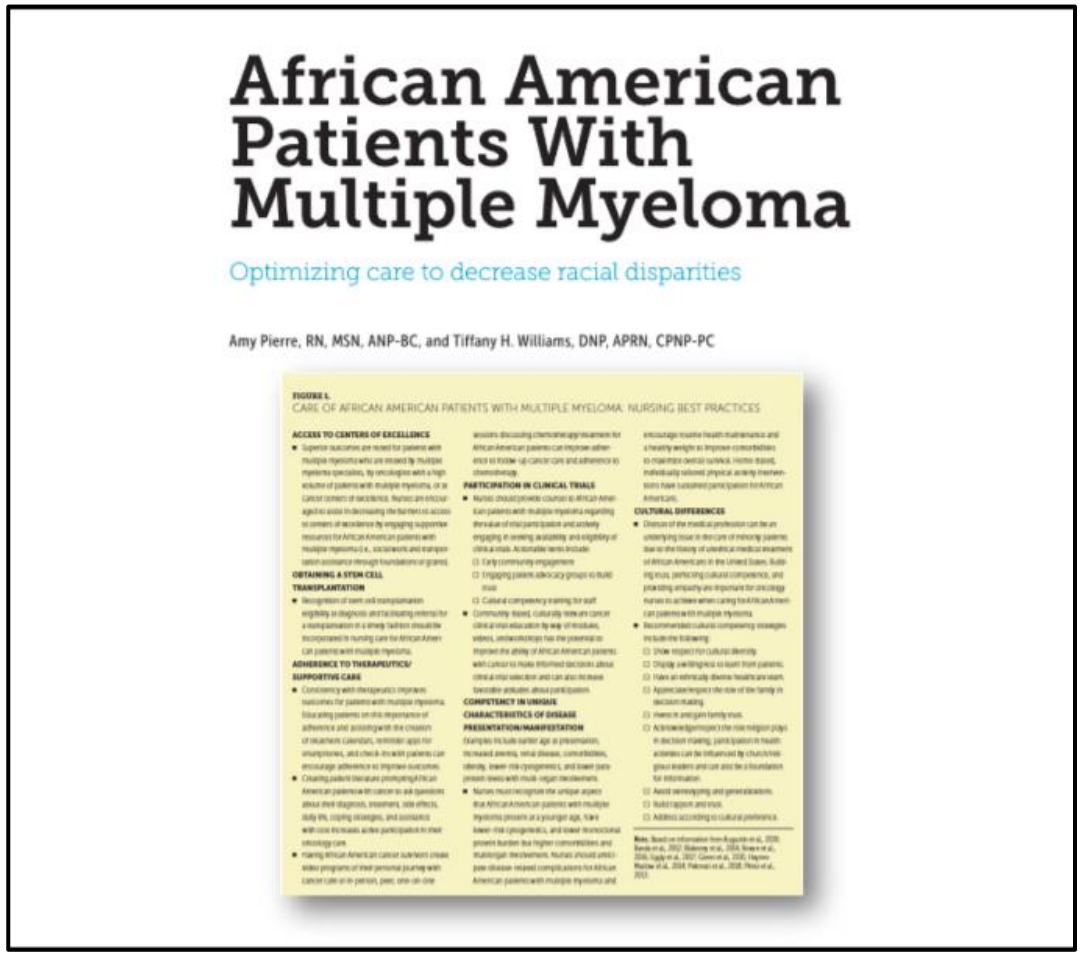
My experiences over the years as a support group leader have been that most leaders are experiencing similar challenges, looking for ways to diversify group participation and ensure that we all live well with myeloma. Much like the health-care system, we have to better understand barriers to participation.

- Tiffany Williams

Diagnosed with myeloma in 2013, Tiffany is a co-facilitator of the Charleston, South Carolina Area Multiple Myeloma Networking Group

Best Practices for Nurses

The IMF Nurse Leadership Board published a paper on Best Nursing Practices



African American Patients With Multiple Myeloma

Optimizing care to decrease racial disparities

Amy Pierre, RN, MSN, ANP-BC, and Tiffany H. Williams, DNP, APRN, CPNP-PC

FIGURE 1.
CARE OF AFRICAN AMERICAN PATIENTS WITH MULTIPLE MYELOMA: NURSING BEST PRACTICES

ACCESS TO CENTERS OF EXCELLENCE

OBTAINING A STEM CELL TRANSPLANTATION

ADHERENCE TO THERAPEUTICS/ SUPPORTIVE CARE

PARTICIPATION IN CLINICAL TRIALS

COMPETENCY IN UNIQUE CHARACTERISTICS OF DISEASE PRESENTATION/MANIFESTATION

CULTURAL DIFFERENCES

INTERNATIONAL MYELOMA FOUNDATION

Educational Program for Primary Care Physicians

Beginning in Charlotte, then to other cities…

Premise – Myeloma is underdiagnosed and diagnosed later in African American patients

Plan – develop a curriculum to educate primary care providers about EARLY and ACCURATE diagnosis of myeloma

- **focus on providers with large proportions of African American patients**
- **emphasize the distinction between signs/symptoms common to diabetes and myeloma**

Best Practices for Physicians

I am chairing a working group of physicians to similarly produce a best practices document for caring for patients in the African American Community:

Dr. Joseph Mikhael (TGen/City of Hope)

Dr. Craig Cole (Michigan State)

Dr. Saad Usmani (Levine Cancer Institute)

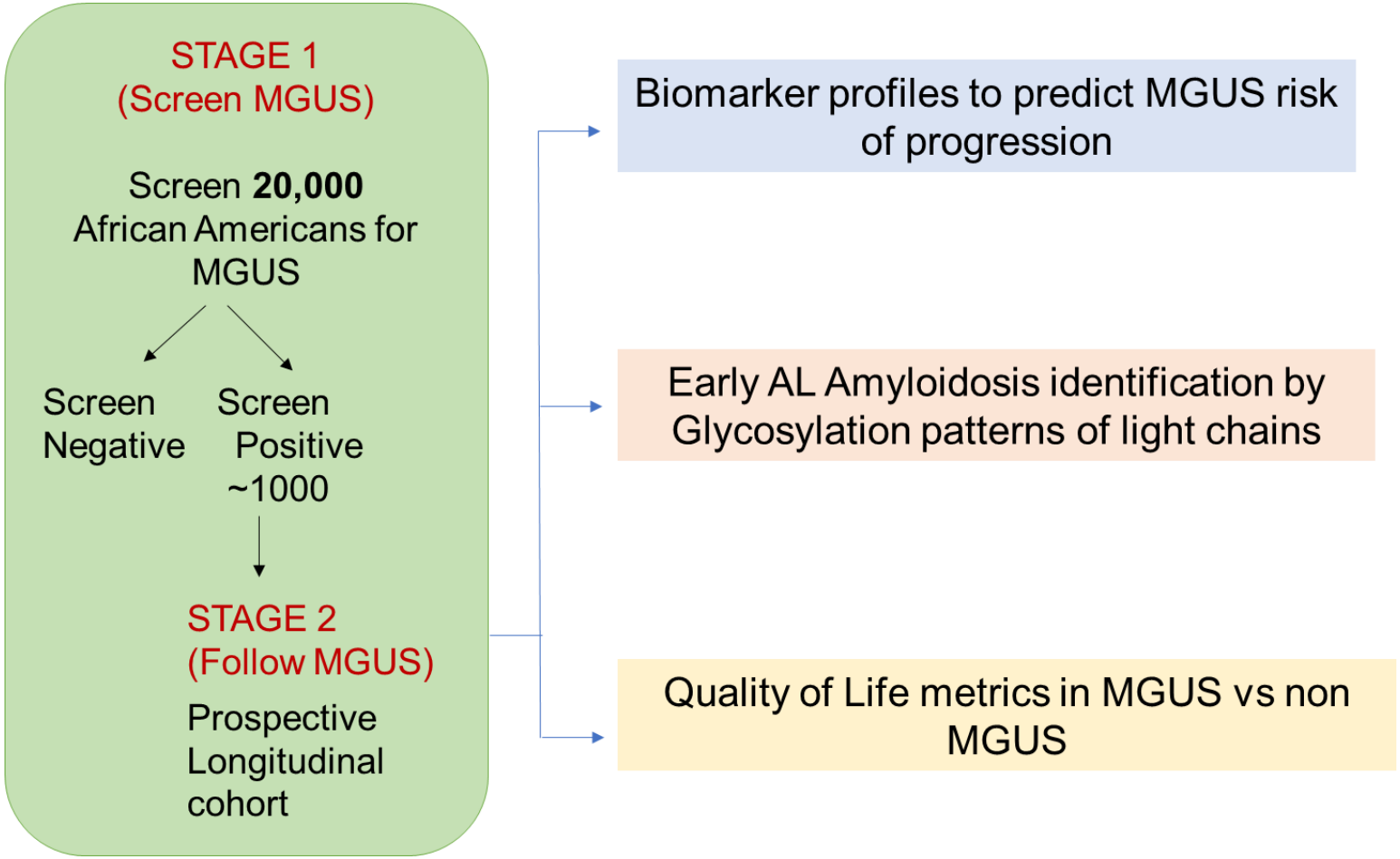
Dr. Manisha Bhutani (Levine Cancer Institute)

Dr. Ajay Nooka (Emory)

Dr. Leon Bernal (Grady Hospital)

Dr. Ashraf Badros (University of Baltimore)

CHAAMP
(Charlotte African American MGUS Project)



Atrium Health
Levine Cancer Institute

FINAL Point

The African American community is only one of many vulnerable populations

The M-Power Initiative is now developing programs for

- Hispanic Americans
- Asian Americans
- Uninsured individuals
- Patients in remote areas
- Very young patients with myeloma (under 40)
- …

THANK YOU!

Joseph Mikhael, MD, MEd, FRCPC

Professor, Translational Genomics Research Institute (TGen)
City of Hope Cancer Center

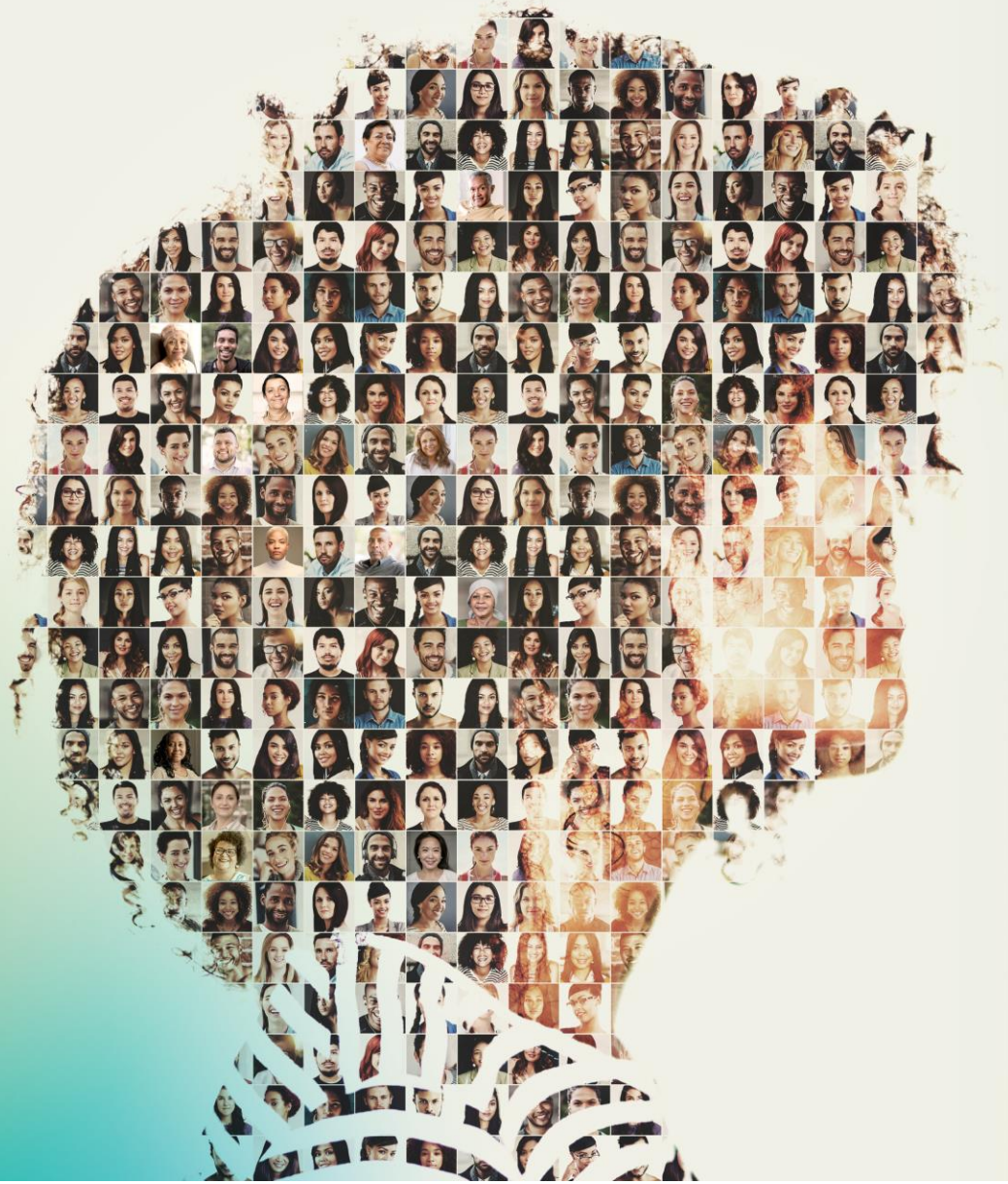
Chief Medical Officer, International Myeloma Foundation

Director of Myeloma Research and Consultant Hematologist, HonorHealth Research Institute

jmikhael@myeloma.org

tgen AN AFFILIATE OF City of Hope

INTERNATIONAL MYELOMA FOUNDATION



AN ACCREDITED CONTINUING EDUCATION SERIES WITH THE EXPERTS

Addressing Disparities in Cancer Care and Incorporating Precision Medicine for Minority Populations

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