Thank you for joining us.
The program will begin momentarily.

Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Clinical Investigator Perspectives on the Current and Future Management of Multiple Myeloma

A Meet The Professor Series

Jonathan L Kaufman, MD
Associate Professor of Hematology and Medical Oncology
Winship Cancer Institute of Emory University
Atlanta, Georgia

Co-provided by USF Health RTP RESEARCH TO PRACTICE

Commercial Support

This activity is supported by educational grants from Adaptive Biotechnologies Corporation, Celgene Corporation, GlaxoSmithKline, Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC, and Takeda Oncology.

Potential Conflicts of Interest

USF Health endorses the standards of the ACCME that require everyone in a position to control the content of an accredited educational activity to disclose all financial relationships with commercial interests that are related to the content of the educational activity. All accredited activities must be balanced, independent of commercial bias, and promote improvements or quality in healthcare. All recommendations involving clinical medicine must be based on evidence accepted within the medical profession.

USF Health will identify, review, and resolve all conflicts of interest that speakers, authors, or planners disclose prior to an educational activity being delivered to learners. Disclosure of a relationship is not intended to suggest or condone bias in any presentation, but is made to provide participants with information that might be of potential importance to their evaluation of a presentation.

Non-Faculty Disclosures

USF Health CPD Staff and Research To Practice CME Planning Committee Members, Staff, and Reviewers have no relevant conflicts to disclose.

Accreditation

USF Health is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

USF Health designates this live activity for a maximum of 1 *AMA PRA Category 1 Credit™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ACCME™
ACCREDITED WITH COMMENDATION

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

AMERICAN BOARD OF INTERNAL MEDICINE (ABIM) — MAINTENANCE OF CERTIFICATION (MOC)

Successful completion of this CME activity, which includes participation in the evaluation component and a short post-test, enables the participant to earn up to 1 Medical Knowledge MOC point in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Please note, this program has been specifically designed for the following ABIM specialties: **medical oncology** and **hematology**.

Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Dr Love — Disclosures

Dr Love is president and CEO of Research To Practice. Research To Practice receives funds in the form of educational grants to develop CME activities from the following commercial interests: AbbVie Inc, Acerta Pharma — A member of the AstraZeneca Group, Adaptive Biotechnologies Corporation, Agendia Inc, Agios Pharmaceuticals Inc, Amgen Inc, Array BioPharma Inc, a subsidiary of Pfizer Inc, Astellas, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Biodesix Inc, bioTheranostics Inc, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Daiichi Sankyo Inc, Dendreon Pharmaceuticals Inc, Eisai Inc, EMD Serono Inc, Exelixis Inc, Foundation Medicine, Genentech, a member of the Roche Group, Genmab, Genomic Health Inc, Gilead Sciences Inc, GlaxoSmithKline, Grail Inc, Guardant Health, Halozyme Inc, Helsinn Healthcare SA, ImmunoGen Inc, Incyte Corporation, Infinity Pharmaceuticals Inc, Ipsen Biopharmaceuticals Inc, Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC, Jazz Pharmaceuticals Inc, Kite, A Gilead Company, Lexicon Pharmaceuticals Inc, Lilly, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Merck, Merrimack Pharmaceuticals Inc, Myriad Genetic Laboratories Inc, Natera Inc, Novartis, Oncopeptides, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Prometheus Laboratories Inc, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, Sandoz Inc, a Novartis Division, Sanofi Genzyme, Seattle Genetics, Sirtex Medical Ltd, Spectrum Pharmaceuticals Inc, Sumitomo Dainippon Pharma Oncology Inc, Taiho Oncology Inc, Takeda Oncology, Tesaro, A GSK Company, Teva Oncology, Tokai Pharmaceuticals Inc and Verastem Inc.

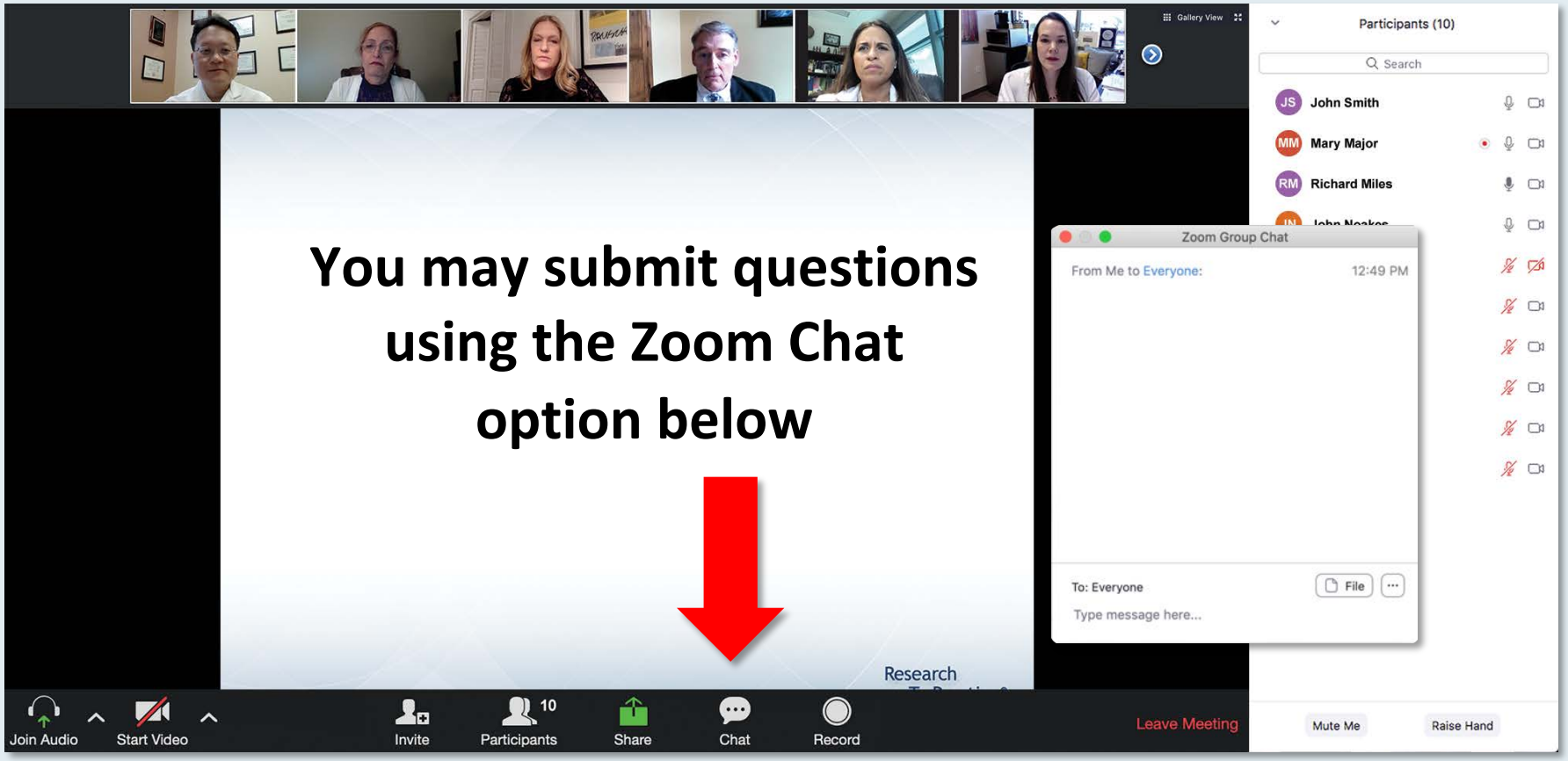
Dr Kaufman — Disclosures

Consulting Agreements	Bristol-Myers Squibb Company, Genentech, a member of the Roche Group, Janssen Biotech Inc, Tecnofarma
Contracted Research	Amgen Inc, Bristol-Myers Squibb Company, Fortis Therapeutics, Janssen Biotech Inc, Sutro Biopharma
Data and Safety Monitoring Board/Committee	TG Therapeutics Inc

Dr Gupta — Disclosures

Speakers Bureau	Lilly

We Encourage Clinicians in Practice to Submit Questions



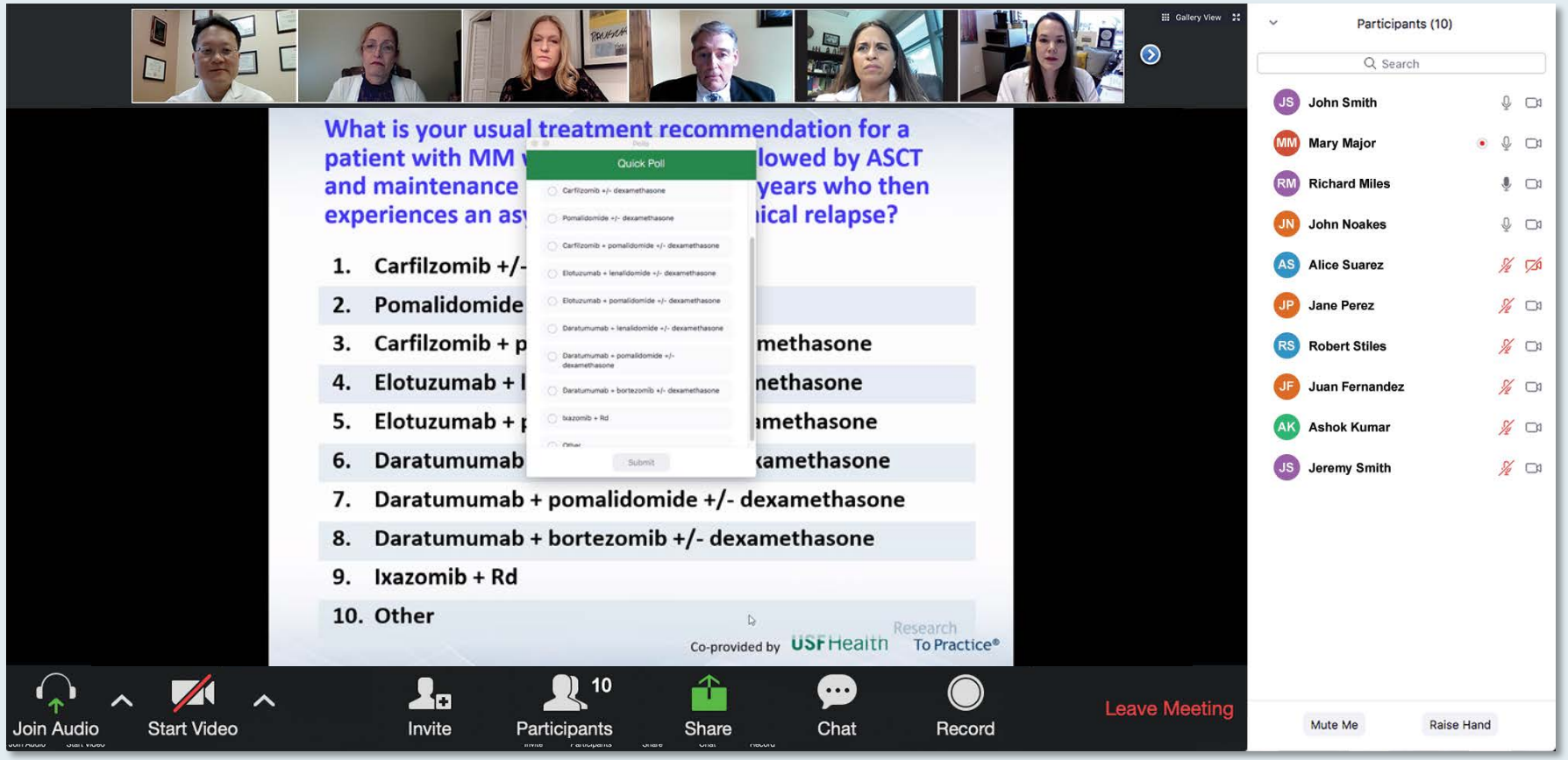
Feel free to submit questions now before the program begins and throughout the program.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

Familiarizing Yourself with the Zoom Interface

How to answer poll questions



When a poll question pops up, click your answer choice from the available options. Results will be shown after everyone has answered.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

Upcoming Live Webinars

Friday, September 18, 2020
12:00 PM – 1:00 PM ET

Optimizing the Selection and Sequencing of Therapy for Patients with Chronic Lymphocytic Leukemia

Faculty
Matthew S Davids, MD, MMSc

Moderator
Neil Love, MD

Monday, September 21, 2020
12:00 PM – 1:00 PM ET

Clinical Investigator Perspectives on the Current and Future Management of Multiple Myeloma

Faculty
Ola Landgren, MD, PhD

Moderator
Neil Love, MD

Upcoming Live Webinars

Tuesday, September 22, 2020
12:00 PM – 1:00 PM ET

Current Questions and Controversies in the Management of Lung Cancer

Faculty
David R Spigel, MD

Moderator
Neil Love, MD

Wednesday, September 23, 2020
12:00 PM – 1:00 PM ET

Optimizing the Selection and Sequencing of Therapy for Patients with Chronic Lymphocytic Leukemia

Faculty
Jeff Sharman, MD

Moderator
Neil Love, MD

Upcoming Live Webinars

Thursday, September 24, 2020
12:00 PM – 1:00 PM ET

Exploring the Role of Immune Checkpoint Inhibitor Therapy and Other Novel Strategies in Gynecologic Cancers

Faculty
David M O'Malley, MD

Moderator
Neil Love, MD

Thank you for joining us!

CME and MOC credit information will be emailed to each participant within 5 days.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

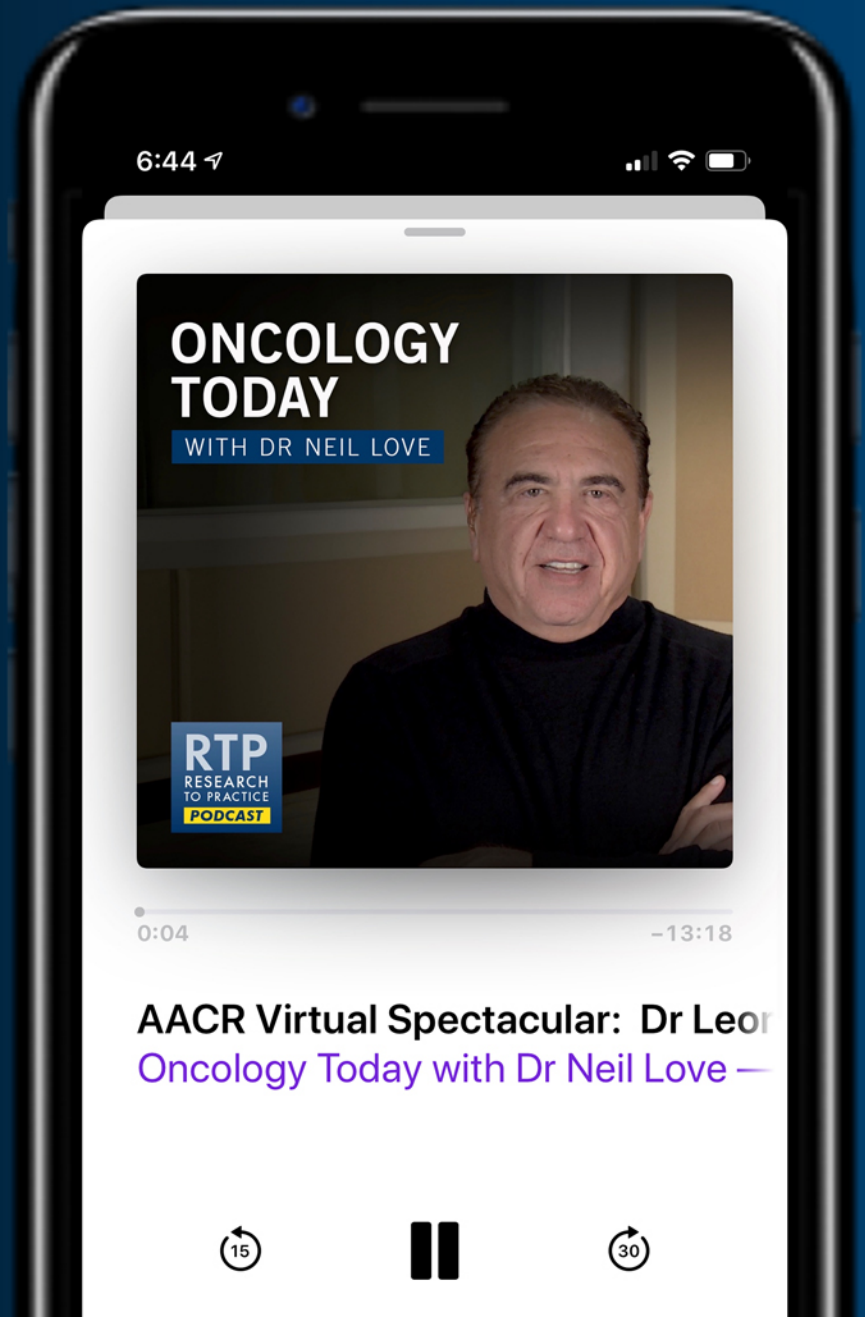
ONCOLOGY TODAY

WITH DR NEIL LOVE

Listen on Apple Podcasts

Spotify

Listen on Google Podcasts



Clinical Investigator Perspectives on the Current and Future Management of Multiple Myeloma

A Meet The Professor Series

Jonathan L Kaufman, MD
Associate Professor of Hematology and Medical Oncology
Winship Cancer Institute of Emory University
Atlanta, Georgia

Co-provided by USF Health RTP RESEARCH TO PRACTICE

Meet The Professor Program Participating Faculty

Rafael Fonseca, MD
Getz Family Professor of Cancer
Director for Innovation and
Transformational Relationships
Interim Executive Director of the Mayo
Clinic Comprehensive Cancer Center
Chair, Department of Internal Medicine
Distinguished Mayo Investigator
Mayo Clinic in Arizona
Phoenix, Arizona

Shaji K Kumar, MD
Mark and Judy Mullins Professor of
Hematological Malignancies
Consultant, Division of Hematology
Professor of Medicine, Mayo Clinic
Rochester, Minnesota

Ola Landgren, MD, PhD
Professor of Medicine
Chief, Myeloma Service
Department of Medicine
Memorial Sloan Kettering Cancer Center
New York, New York

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

Joseph Mikhael, MD
Professor, Applied Cancer Research
and Drug Discovery
Translational Genomics Research Institute
City of Hope Cancer Center
Phoenix, Arizona

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

Meet The Professor Program Participating Faculty

Nikhil C Munshi, MD
Kraft Family Chair
Director of Basic and Correlative Science
Jerome Lipper Multiple Myeloma Center
Professor of Medicine
Harvard Medical School
Dana-Farber Cancer Institute
Boston, Massachusetts

Robert Z Orlowski, MD, PhD
Florence Maude Thomas Cancer
Research Professor
Department of Lymphoma and Myeloma
Professor, Department of Experimental
Therapeutics
Director, Myeloma Section
Division of Cancer Medicine
The University of Texas
MD Anderson Cancer Center
Houston, Texas

Noopur Raje, MD
Director
Center for Multiple Myeloma
Massachusetts General Hospital
Cancer Center
Professor of Medicine
Harvard Medical School
Boston, Massachusetts

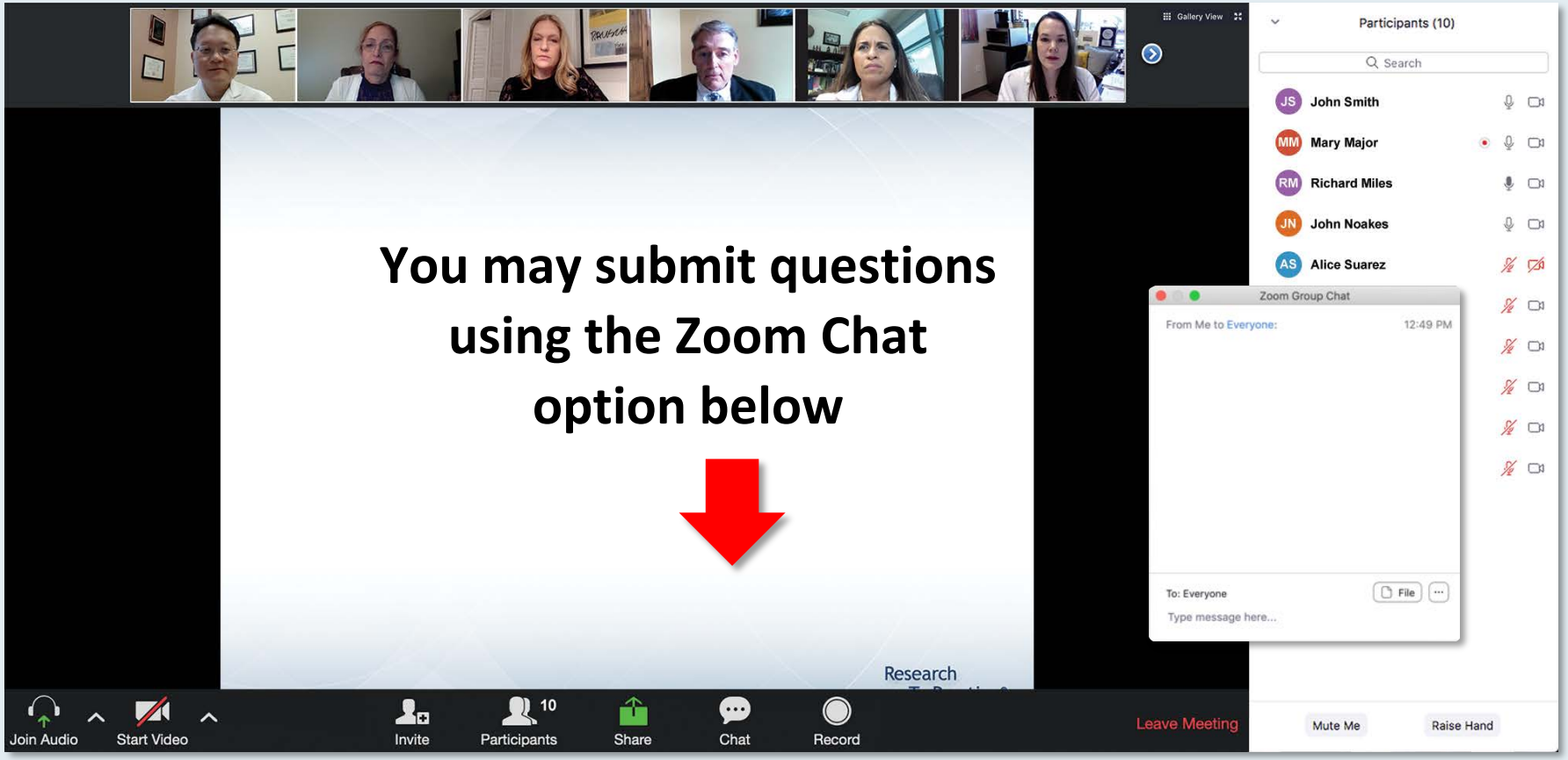
Nina Shah, MD
Associate Professor of Medicine
University of California
San Francisco
Division of Hematology-Oncology
San Francisco, California

Project Chair
Neil Love, MD
Research To Practice
Miami, Florida

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

We Encourage Clinicians in Practice to Submit Questions



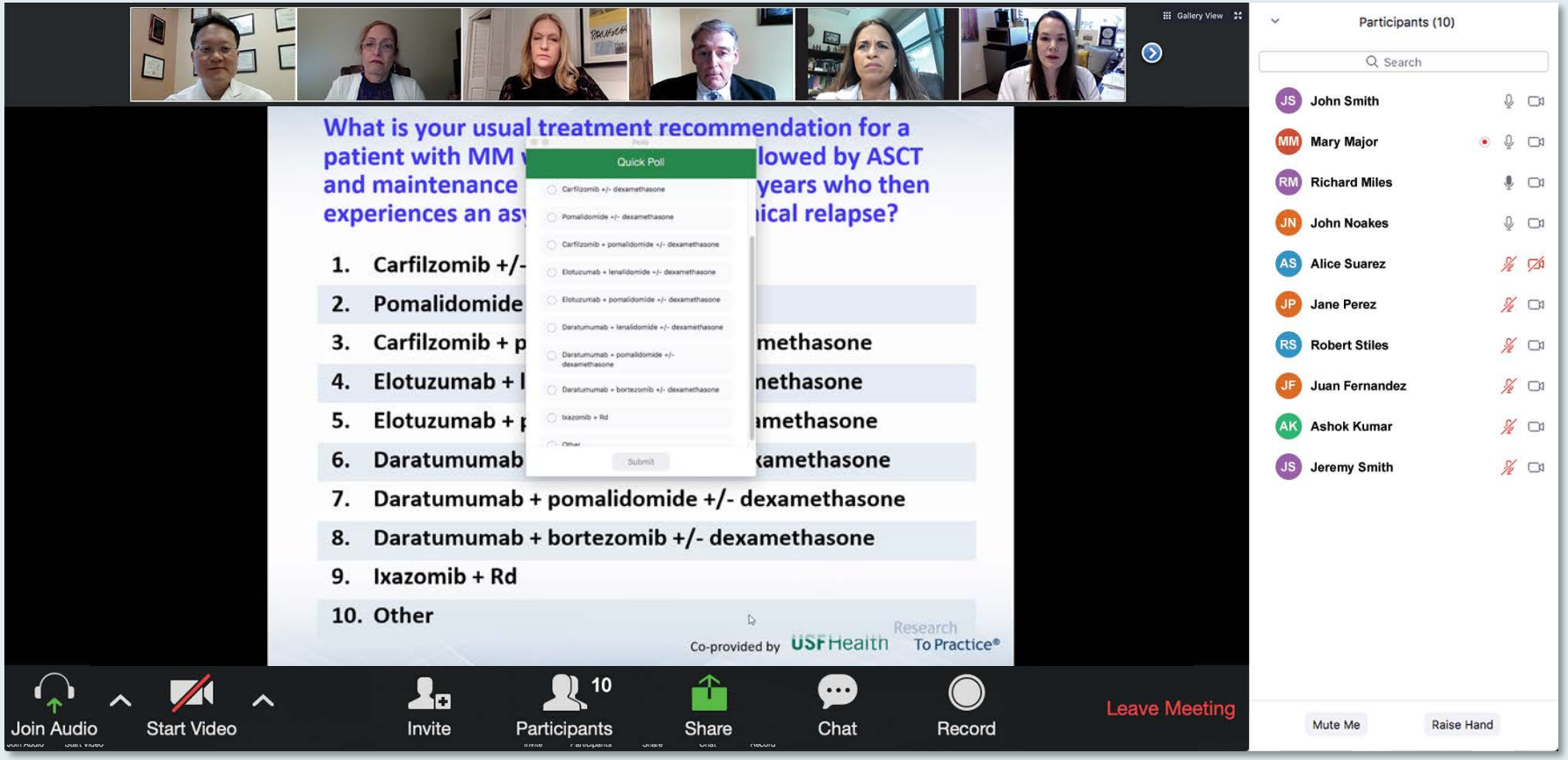
Feel free to submit questions now before the program begins and throughout the program.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

Familiarizing Yourself with the Zoom Interface

How to answer poll questions



When a poll question pops up, click your answer choice from the available options. Results will be shown after everyone has answered.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

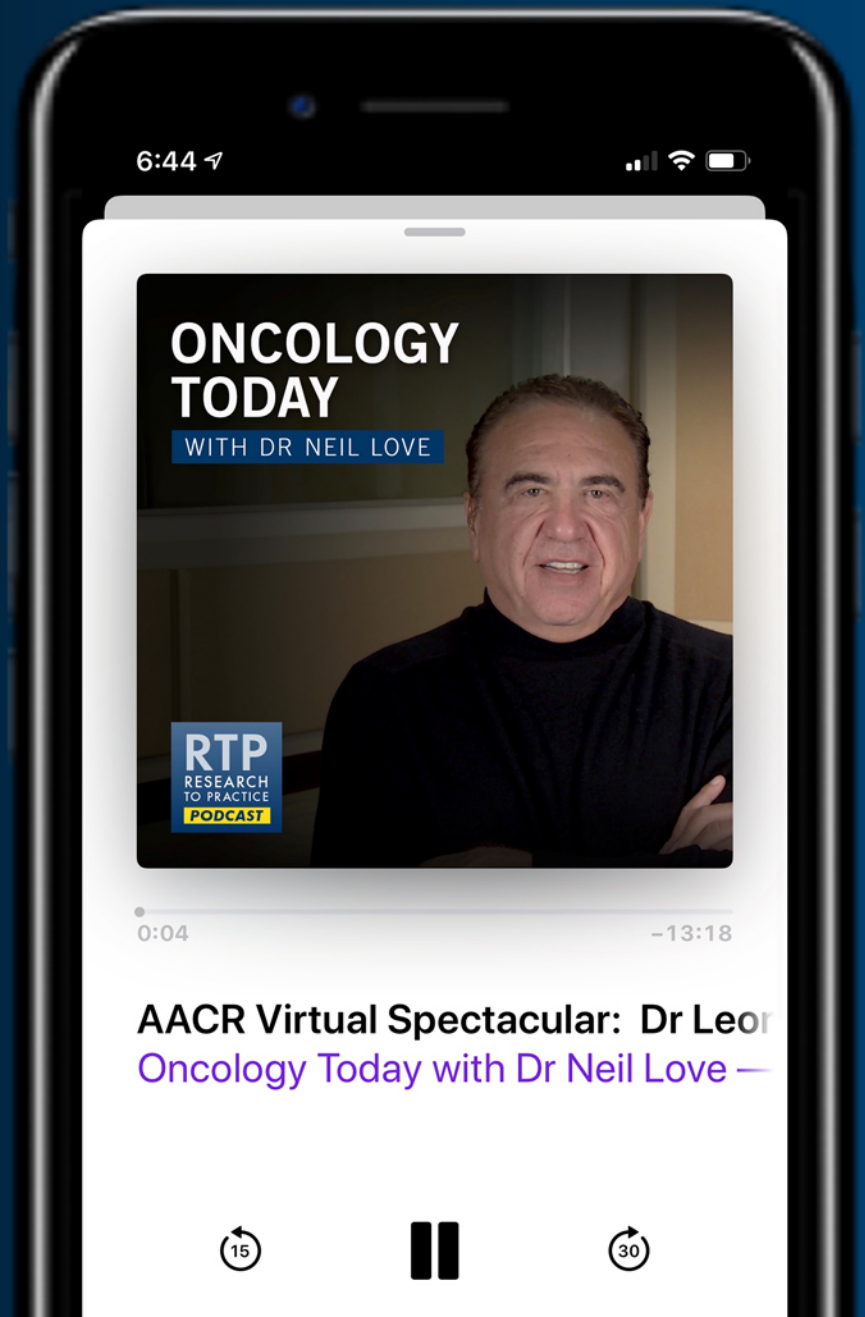
ONCOLOGY TODAY

WITH DR NEIL LOVE

Listen on Apple Podcasts

Spotify

Listen on Google Podcasts



Optimizing the Selection and Sequencing of Therapy for Patients with Chronic Lymphocytic Leukemia

A Meet The Professor Series

Friday, September 18, 2020
12:00 PM – 1:00 PM ET

Faculty

Matthew S Davids, MD, MMSc

Moderator

Neil Love, MD

RTP
RESEARCH
TO PRACTICE

Clinical Investigator Perspectives on the Current and Future Management of Multiple Myeloma

A Meet The Professor Series

Monday, September 21, 2020
12:00 PM – 1:00 PM ET

Faculty
Ola Landgren, MD, PhD

Moderator
Neil Love, MD

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

Current Questions and Controversies in the Management of Lung Cancer

A Meet The Professor Series

Tuesday, September 22, 2020
12:00 PM – 1:00 PM ET

Faculty
David R Spigel, MD

Moderator
Neil Love, MD

RTP
RESEARCH
TO PRACTICE

Optimizing the Selection and Sequencing of Therapy for Patients with Chronic Lymphocytic Leukemia

A Meet The Professor Series

Wednesday, September 23, 2020
12:00 PM – 1:00 PM ET

Faculty
Jeff Sharman, MD

Moderator
Neil Love, MD

RTP
RESEARCH
TO PRACTICE

Exploring the Role of Immune Checkpoint Inhibitor Therapy and Other Novel Strategies in Gynecologic Cancers

A Meet The Professor Series

Thursday, September 24, 2020
12:00 PM – 1:00 PM ET

Faculty
David M O'Malley, MD

Moderator
Neil Love, MD

RTP
RESEARCH
TO PRACTICE

Clinical Investigator Perspectives on the Current and Future Management of Multiple Myeloma

A Meet The Professor Series

Jonathan L Kaufman, MD
Associate Professor of Hematology and Medical Oncology
Winship Cancer Institute of Emory University
Atlanta, Georgia

Co-provided by USF Health RTP RESEARCH TO PRACTICE

Ranju Gupta, MD
Attending Physician
Co-Director, Cardio-Oncology Program
LVPG Hematology Oncology Associates
Lehigh Valley Health Network
Bethlehem, Pennsylvania

Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Meet The Professor with Dr Kaufman

Module 1: Cases from the Community – Dr Gupta

- A 69-year-old woman with amyloid light-chain (AL) amyloidosis
- A 70-year-old woman with relapsed multiple myeloma
- Comments and Questions: Selection among treatment options for patients with standard-risk relapsed multiple myeloma
- Comments and Questions: Treatment for patients with renal failure; role of pheresis for patients with light-chain disease and renal failure
- Comments and Questions: Carfilzomib dosing; subcutaneous daratumumab
- A 75-year-old woman with Stage I standard-risk multiple myeloma – Chronic neutropenia, low-risk MDS

Module 2: Beyond the Guidelines: Clinical Investigator Approaches to Common Clinical Scenarios

Module 3: Journal Club

- Front-line carfilzomib/lenalidomide/dexamethasone versus bortezomib/lenalidomide/dexamethasone (ENDURANCE)
- Daratumumab-containing front-line therapy (GRIFFIN, MAIA)
- Minimal residual disease (MRD) testing and use in treatment decision-making
- Consolidation and maintenance therapy; emerging data with ixazomib (TOURMALINE-MM3)
- Data with daratumumab-containing regimens for relapsed/refractory myeloma; split dosing
- Recent FDA approval of selinexor and pivotal data from the STORM trial
- Recent FDA approval of anti-CD38 isatuximab with pomalidomide/low-dose dexamethasone (ICARIA-MM)
- Recent FDA approval of belantamab mafodotin and pivotal data from the DREAMM-2 study
- Clinical development of other anti-BCMA agents

Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Case Presentation – Dr Gupta: A 69-year-old woman with AL amyloidosis

Dr Ranju Gupta

- 2008: MGUS, IgA lambda – on observation
- 2016: IgA lambda smoldering myeloma – on observation
- 2019: AL amyloidosis, normal FISH and cytogenetics. 2.3-gm/24 hrs proteinuria
  - Low voltage EKG, but no restrictive cardiomyopathy by Echo
- CyBorD, with good response, but discontinued after 4 cycles due to worsening neuropathy
  - Significant decrease in IgA lambda light chains, but no change in proteinuria
- Observation, referred to tertiary center for transplant and other management
  - Doxycycline for cardioprotection and losartan for renal protection
- After 4-5 months, increase in IgA lambda chain → Daratumumab/dexamethasone

Questions

- What is the basis of the cardioprotective activity of doxycycline?
- What is the treatment paradigm in 2020 for AL amyloidosis – in the first-line setting? In the second-line setting?

blood

Regular Article

CLINICAL TRIALS AND OBSERVATIONS

Daratumumab plus CyBorD for patients with newly diagnosed AL amyloidosis: safety run-in results of ANDROMEDA

Giovanni Palladini,[1,2] Efstathios Kastritis,[3] Mathew S. Maurer,[4] Jeffrey Zonder,[5] Monique C. Minnema,[6] Ashutosh D. Wechalekar,[7] Arnaud Jaccard,[8] Hans C. Lee,[9] Naresh Bumma,[10] Jonathan L. Kaufman,[11] Eva Medvedova,[12] Tibor Kovacsovics,[13] Michael Rosenzweig,[14] Vaishali Sanchorawala,[15] Xiang Qin,[16] Sandra Y. Vasey,[16] Brendan M. Weiss,[16] Jessica Vermeulen,[17] Giampaolo Merlini,[1,2] and Raymond L. Comenzo[18]

Blood 2020;136(1):71-80

Case Presentation – Dr Gupta: A 70-year-old woman with relapsed multiple myeloma

Dr Ranju Gupta

- 2016: Diagnosed with IgG kappa light chain MM with asymptomatic bone mets; treated elsewhere initially
- Cytogenetics: 46,XX, inv(9)(p11q13)c[30]. FISH: Normal
- Bortezomib/cyclophosphamide/dexamethasone → PD after 6 cycles (refused transplant)
- 2017: Carfilzomib/lenalidomide/dexamethasone → PD after one year
  - Cytopenias despite dose reduction
- 2018: Daratumumab/pomalidomide/dexamethasone, with VGPR

Questions

- Do you believe it is necessary to continue the pomalidomide in patients receiving Dara/pom/dex, or can treatment holidays be given? Can pomalidomide be discontinued in a responding patient?

Comments and Questions: Selection among treatment options for patients with standard-risk relapsed multiple myeloma

Dr Ranju Gupta

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

original reports

Long-Term Follow-Up Results of Lenalidomide, Bortezomib, and Dexamethasone Induction Therapy and Risk-Adapted Maintenance Approach in Newly Diagnosed Multiple Myeloma

Nisha S. Joseph, MD[1]; Jonathan L. Kaufman, MD[1]; Madhav V. Dhodapkar, MD[1]; Craig C. Hofmeister, MD, MPH[1]; Dhwani K. Almaula, MBBS, MPH[1]; Leonard T. Heffner, MD[1]; Vikas A. Gupta, MD, PhD[1]; Lawrence H. Boise, PhD[1]; Sagar Lonial, MD[1]; and Ajay K. Nooka, MD, MPH[1]

J Clin Oncol 2020;38(17):1928-37

| CHALLENGES IN MYELOMA THERAPY |

Roundtable: How I treat a newly diagnosed patient with high-risk myeloma

Jonathan L. Kaufman

Winship Cancer Institute, Emory University, Atlanta, GA

***Hematology Am Soc Hematol Educ Program* 2019;2019(1):120-4**

Comments and Questions: Treatment for patients with renal failure; role of pheresis for patients with light-chain disease and renal failure

Dr Ranju Gupta

Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Comments and Questions: Carfilzomib dosing; subcutaneous daratumumab

Dr Ranju Gupta

haematologica
Journal of The Ferrata Storti Foundation

Subcutaneous daratumumab in patients with relapsed or refractory multiple myeloma: Part 2 of the open-label, multicenter, dose-escalation phase 1b study (PAVO)

by Jesus San-Miguel, Saad Z. Usmani, Maria-Victoria Mateos, Niels W.C.J. van de Donk, Jonathan L. Kaufman, Philippe Moreau, Albert Oriol, Torben Plesner, Lotfi Benboubker, Kevin Liu, Peter Hellemans, Tara Masterson, Pamela L. Clemens, Man Luo, Andrew Farnsworth, Hareth Nahi, and Ajai Chari

Haematologica 2020;[Online ahead of print].

Case Presentation – Dr Gupta: A 75-year-old woman with Stage I standard-risk multiple myeloma – Chronic neutropenia, low-risk MDS

Dr Ranju Gupta

- Prior medical history: DM, HTN
- 2017: Diagnosed with standard-risk, R-ISS Stage I Kappa light chain multiple myeloma
- Bortezomib/lenalidomide/dexamethasone
  - Discontinued lenalidomide due to persistent neutropenia, ANC <100
  - Continued bortezomib/dexamethasone, with PR, but neutropenia still <300
  - Asymptomatic, placed on observation
- After 6 months, Kappa FLC increasing to baseline
- June 2020: Daratumumab/dexamethasone

Questions

- What treatment options would be better for patients like this woman with low counts?
- Would any of the newer treatments be an option here?

Co-provided by USF Health RTP RESEARCH TO PRACTICE

Meet The Professor with Dr Kaufman

Module 1: Cases from the Community – Dr Gupta

- A 69-year-old woman with amyloid light-chain (AL) amyloidosis
- A 70-year-old woman with relapsed multiple myeloma
- Comments and Questions: Selection among treatment options for patients with standard-risk relapsed multiple myeloma
- Comments and Questions: Treatment for patients with renal failure; role of pheresis for patients with light-chain disease and renal failure
- Comments and Questions: Carfilzomib dosing; subcutaneous daratumumab
- A 75-year-old woman with Stage I standard-risk multiple myeloma – Chronic neutropenia, low-risk MDS

Module 2: Beyond the Guidelines: Clinical Investigator Approaches to Common Clinical Scenarios

Module 3: Journal Club

- Front-line carfilzomib/lenalidomide/dexamethasone versus bortezomib/lenalidomide/dexamethasone (ENDURANCE)
- Daratumumab-containing front-line therapy (GRIFFIN, MAIA)
- Minimal residual disease (MRD) testing and use in treatment decision-making
- Consolidation and maintenance therapy; emerging data with ixazomib (TOURMALINE-MM3)
- Data with daratumumab-containing regimens for relapsed/refractory myeloma; split dosing
- Recent FDA approval of selinexor and pivotal data from the STORM trial
- Recent FDA approval of anti-CD38 isatuximab with pomalidomide/low-dose dexamethasone (ICARIA-MM)
- Recent FDA approval of belantamab mafodotin and pivotal data from the DREAMM-2 study
- Clinical development of other anti-BCMA agents

Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Currently, what is your usual pretransplant induction regimen for a 65-year-old patient with MM and no high-risk features?

1. RVD (lenalidomide/bortezomib/dexamethasone)
2. KRd (carfilzomib/lenalidomide/dexamethasone)
3. CyBorD
4. MVP, MPR or MPT (M = melphalan, P = prednisone, V = bortezomib, R = lenalidomide, T = thalidomide)
5. MVP/daratumumab
6. Rd/daratumumab
7. VTd (bortezomib/thalidomide/dexamethasone) with daratumumab
8. RVD/daratumumab
9. KRd/daratumumab
10. Other

Currently, what pretransplant induction regimen would you recommend for a 65-year-old patient with multiple myeloma (MM)?

	Standard risk	Del(17p)
 RAFAEL FONSECA, MD	KRd	KRd/daratumumab
 SHAJI K KUMAR, MD	RVD	RVD/daratumumab
 OLA LANDGREN, MD, PHD	KRd	KRd
 SAGAR LONIAL, MD	RVD/daratumumab	KRd
 JOSEPH R MIKHAEL, MD	RVD	KRd
 NIKHIL C MUNSHI, MD	RVD	RVD/daratumumab
 ROBERT Z ORLOWSKI, MD, PHD	RVD	KRd
 NOOPUR RAJE, MD	RVD	KRd
 NINA SHAH, MD	RVD	KRd

Regulatory and reimbursement issues aside, what is your preferred induction regimen for an 85-year-old patient with ISS Stage II MM who is transplant ineligible?

	Standard risk, normal renal function	Del(17p)
 RAFAEL FONSECA, MD	Rd/dara	KRd
 SHAJI K KUMAR, MD	Rd/dara	RVD lite
 OLA LANDGREN, MD, PHD	Rd/dara	RVD lite + dara
 SAGAR LONIAL, MD	Rd/dara	RVD lite
 JOSEPH R MIKHAEL, MD	Rd/dara	RVD
 NIKHIL C MUNSHI, MD	Rd	RVD lite
 ROBERT Z ORLOWSKI, MD, PHD	Rd/dara	RVD lite
 NOOPUR RAJE, MD	Rd or RVD or RVD lite or Rd/dara	RVD lite
 NINA SHAH, MD	RVD or RVD lite or Rd/dara	RVD lite

Dara = daratumumab

Are there situations in which you believe community-based oncologists/hematologists should be ordering minimal residual disease (MRD) assessment to guide treatment decision-making for patients with MM?

 RAFAEL FONSECA, MD	Yes – Pts in long-term CR or with plasmacytomas; monitoring amyloidosis
 SHAJI K KUMAR, MD	Yes – Pts with high-risk disease
 OLA LANDGREN, MD, PHD	Yes – After combination therapy; if MRD-negative, collect and store stem cells. Then go straight to maintenance
 SAGAR LONIAL, MD	No
 JOSEPH R MIKHAEL, MD	No
 NIKHIL C MUNSHI, MD	Yes – Post-transplant, at CR, before and during maintenance
 ROBERT Z ORLOWSKI, MD, PHD	Yes, timing the number of induction cycles prior to stem cell collection for patients in CR
 NOOPUR RAJE, MD	No
 NINA SHAH, MD	No, I don’t believe this test should be ordered in the community to make clinical decisions

What is your usual recommendation for post-ASCT maintenance therapy for patients with MM who received RVD induction therapy?

	Standard risk	Del(17p)
 RAFAEL FONSECA, MD	Lenalidomide	Len/ixa ± dex
 SHAJI K KUMAR, MD	Lenalidomide	Len/bortez ± dex
 OLA LANDGREN, MD, PHD	Lenalidomide	Lenalidomide
 SAGAR LONIAL, MD	Lenalidomide	Len/bortez ± dex
 JOSEPH R MIKHAEL, MD	Lenalidomide	Lenalidomide + bortezomib
 NIKHIL C MUNSHI, MD	Lenalidomide + dex	Len/bortez ± dex
 ROBERT Z ORLOWSKI, MD, PHD	Lenalidomide	Len/ixa ± dex
 NOOPUR RAJE, MD	Lenalidomide	Len/ixa ± dex or Len/bortez ± dex
 NINA SHAH, MD	Lenalidomide	Len/K ± dex

Len = lenalidomide; ixa = ixazomib; dex = dexamethasone; bortez = bortezomib; K = carfilzomib

What is your usual treatment recommendation for a patient with MM who receives RVD followed by ASCT and maintenance lenalidomide for 1.5 years who then experiences an asymptomatic biochemical relapse?

1. Carfilzomib +/- dexamethasone
2. Pomalidomide +/- dexamethasone
3. Carfilzomib + pomalidomide +/- dexamethasone
4. Elotuzumab + lenalidomide +/- dexamethasone
5. Elotuzumab + pomalidomide +/- dexamethasone
6. Daratumumab + lenalidomide +/- dexamethasone
7. Daratumumab + pomalidomide +/- dexamethasone
8. Daratumumab + bortezomib +/- dexamethasone
9. Ixazomib + Rd
10. Other

What is your usual treatment recommendation for a patient with MM who receives RVD followed by ASCT, who experiences asymptomatic biochemical relapse after …

	1.5 years of maintenance lenalidomide	3 years of maintenance lenalidomide
 RAFAEL FONSECA, MD	Dara/pom ± dex	Dara/pom ± dex
 SHAJI K KUMAR, MD	Dara/pom ± dex	Dara/pom ± dex
 OLA LANDGREN, MD, PHD	Dara/pom ± dex	Dara/pom ± dex
 SAGAR LONIAL, MD	Dara/pom ± dex	Dara/pom ± dex
 JOSEPH R MIKHAEL, MD	Dara/pom ± dex	Dara/pom ± dex
 NIKHIL C MUNSHI, MD	Dara/pom ± dex	Elo/pom ± dex
 ROBERT Z ORLOWSKI, MD, PHD	Dara/pom ± dex	Ixazomib + Rd
 NOOPUR RAJE, MD	Dara/pom ± dex Carfilzomib/pom ± dex if high risk	Pom ± dex or dara/pom ± dex
 NINA SHAH, MD	Dara/pom ± dex	Dara/pom ± dex

Dara = daratumumab; pom = pomalidomide; Elo = elotuzumab

In general, when do you refer patients for possible inclusion in trials of BCMA-targeted CAR T-cell therapy?

 RAFAEL FONSECA, MD	Refractory to all drugs
 SHAJI K KUMAR, MD	Triple-class refractory
 OLA LANDGREN, MD, PHD	Per protocol eligibility criteria
 SAGAR LONIAL, MD	Few treatment options, slow relapse to wait the time to get cells
 JOSEPH R MIKHAEL, MD	Triple-class refractory, reasonable PS, especially high-risk pts
 NIKHIL C MUNSHI, MD	Having received PI, IMiD and anti-CD38 antibody in combination and disease progressing
 ROBERT Z ORLOWSKI, MD, PHD	Multiply relapsed/refractory setting; more recently in earlier settings based on trial availability
 NOOPUR RAJE, MD	As early as possible
 NINA SHAH, MD	After failure of 3rd-line treatment

Meet The Professor with Dr Kaufman

Module 1: Cases from the Community – Dr Gupta

- A 69-year-old woman with amyloid light-chain (AL) amyloidosis
- A 70-year-old woman with relapsed multiple myeloma
- Comments and Questions: Selection among treatment options for patients with standard-risk relapsed multiple myeloma
- Comments and Questions: Treatment for patients with renal failure; role of pheresis for patients with light-chain disease and renal failure
- Comments and Questions: Carfilzomib dosing; subcutaneous daratumumab
- A 75-year-old woman with Stage I standard-risk multiple myeloma – Chronic neutropenia, low-risk MDS

Module 2: Beyond the Guidelines: Clinical Investigator Approaches to Common Clinical Scenarios

Module 3: Journal Club

- Front-line carfilzomib/lenalidomide/dexamethasone versus bortezomib/lenalidomide/dexamethasone (ENDURANCE)
- Daratumumab-containing front-line therapy (GRIFFIN, MAIA)
- Minimal residual disease (MRD) testing and use in treatment decision-making
- Consolidation and maintenance therapy; emerging data with ixazomib (TOURMALINE-MM3)
- Data with daratumumab-containing regimens for relapsed/refractory myeloma; split dosing
- Recent FDA approval of selinexor and pivotal data from the STORM trial
- Recent FDA approval of anti-CD38 isatuximab with pomalidomide/low-dose dexamethasone (ICARIA-MM)
- Recent FDA approval of belantamab mafodotin and pivotal data from the DREAMM-2 study
- Clinical development of other anti-BCMA agents

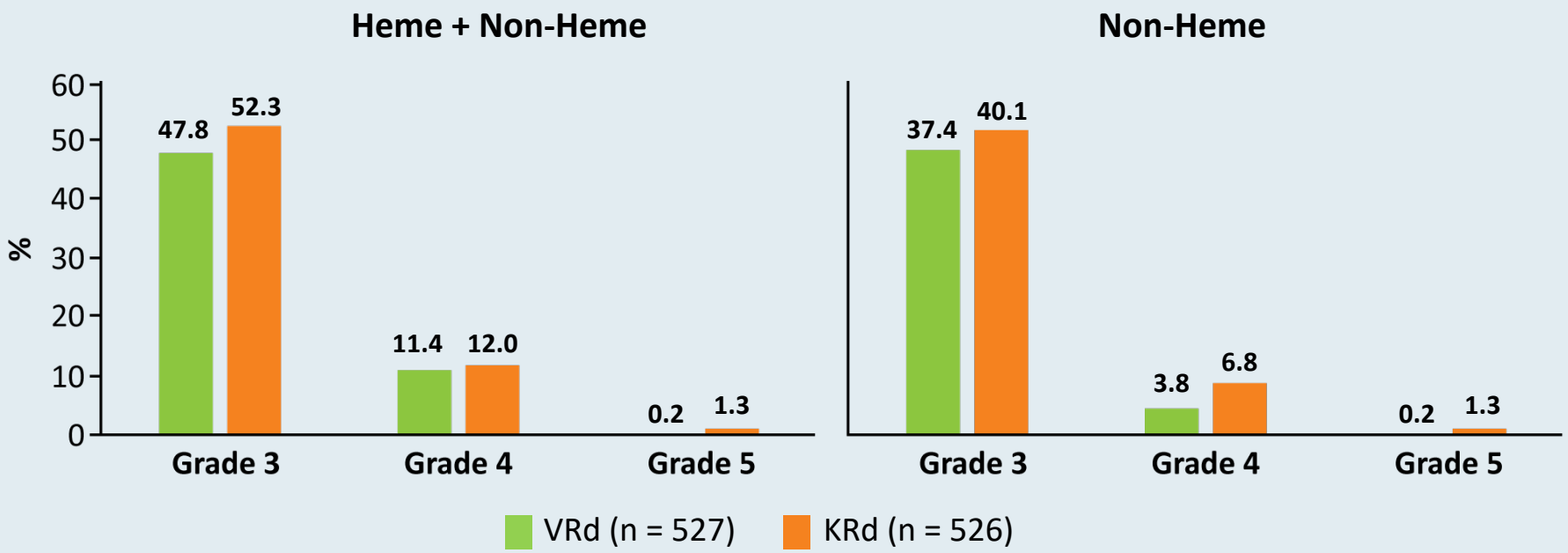
Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Carfilzomib, Lenalidomide, and Dexamethasone (KRd) versus Bortezomib, Lenalidomide, and Dexamethasone (VRd) for Initial Therapy of Newly Diagnosed Multiple Myeloma (NDMM): Results of ENDURANCE (E1A11) Phase III Trial

Kumar S et al.

ASCO 2020;Abstract LBA3. (Plenary)

ENDURANCE (E1A11): Treatment-Related AEs



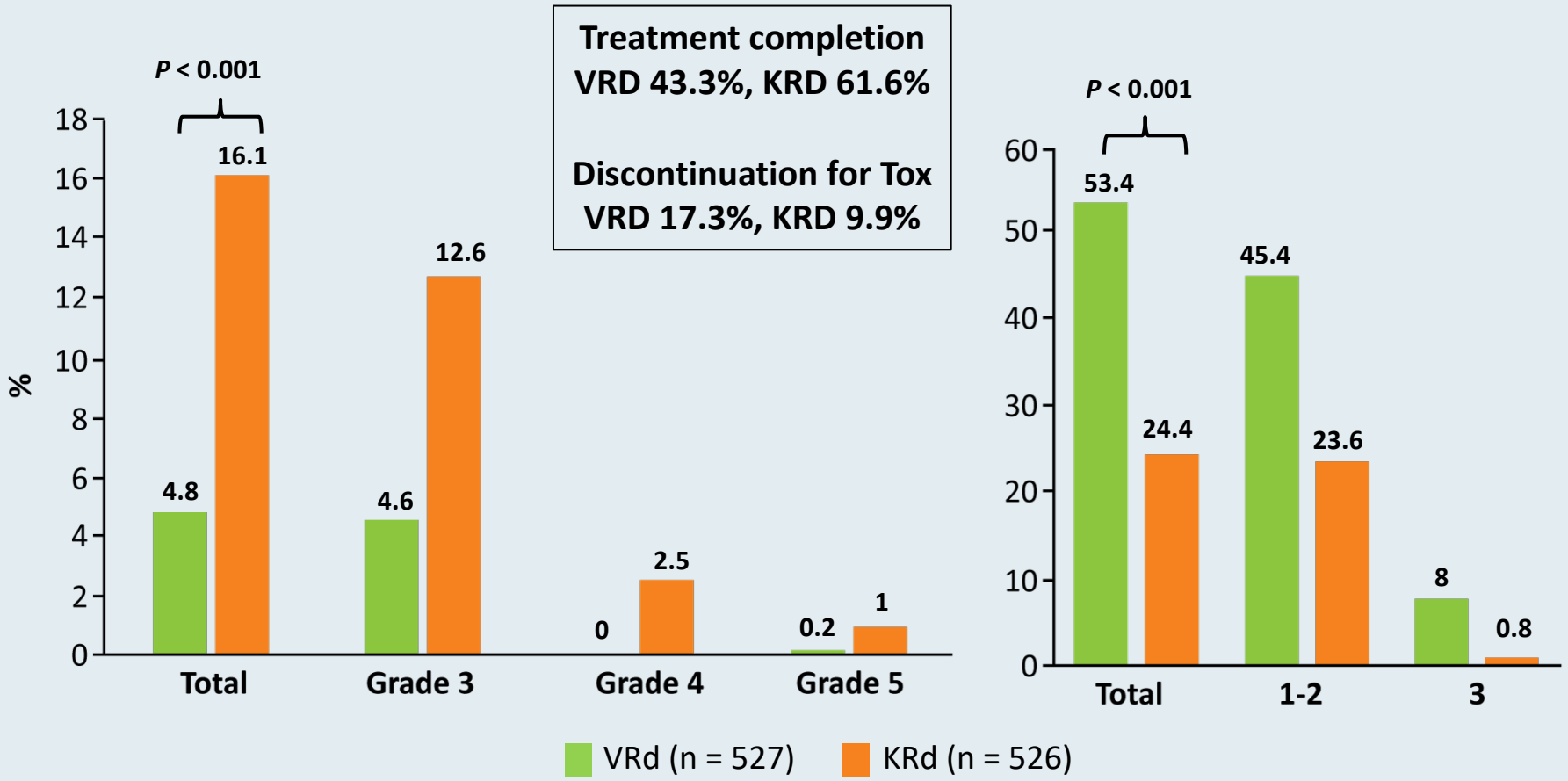
Step 1 treated patients	VRd (n = 527)	KRd (n = 526)		
Rates	N (%)	N (%)	Diff KRd-VRd	Chisq *p*-value
Grade 3-5	313 (59.4)	345 (65.6)	6.2	0.038
(95% CI)	(55.1-63.6)	(61.3-69.6)		
Grades 4-5	61 (11.6)	70 (13.3)	1.7	0.394
(95% CI)	(9.0-14.6)	(10.5-16.5)		

Step 1 treated patients	VRd (n = 527)	KRd (n = 526)		
Rates	N (%)	N (%)	Diff KRd-VRd	Chisq *p*-value
Grade 3-5	254 (48.3)	254 (48.3)	6.9	0.024
(95% CI)	(37.1- 45.7)	(44.0-52.6)		
Grades 4-5	21 (4.0)	43 (8.2)	4.2	0.004
(95% CI)	(2.5-6.1)	(6.0-10.9)		

* Grade 3 heme not required reporting

Kumar S et al. ASCO 2020;Abstract LBA3.

ENDURANCE (E1A11): TEAEs of Interest



Cardiac, pulmonary and renal

Peripheral neuropathy*

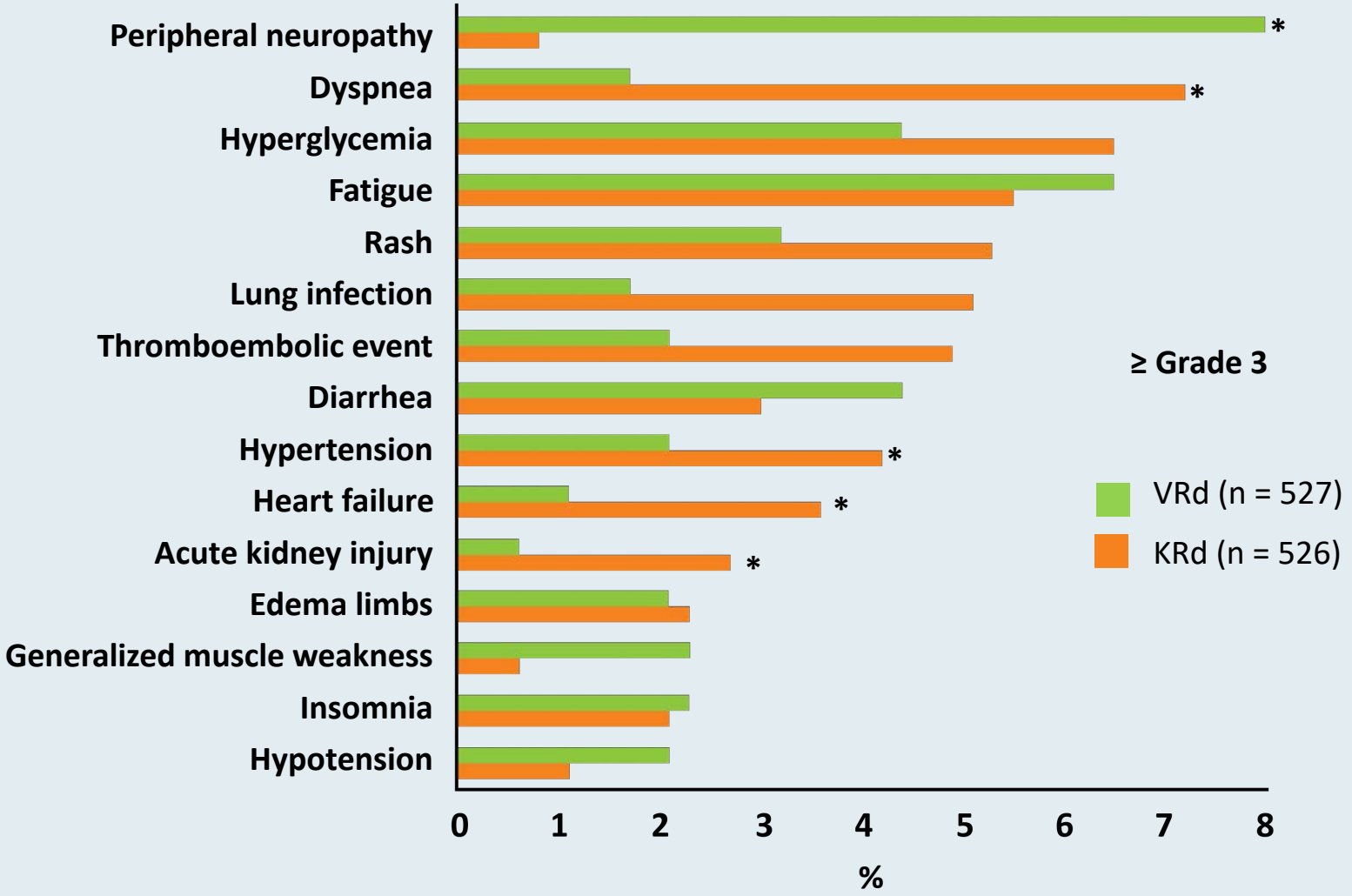
* Grades 1-2 not required reporting

Berdeja JG. ASCO 2020 Discussant.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

ENDURANCE (E1A11): Treatment-Related AEs (≥2%)



Kumar S et al. ASCO 2020;Abstract LBA3.

Primary Analysis of the Randomized Phase II Trial of Bortezomib, Lenalidomide, Dexamethasone with/without Elotuzumab for Newly Diagnosed, High-Risk Multiple Myeloma (SWOG-1211)

Usmani SZ et al.

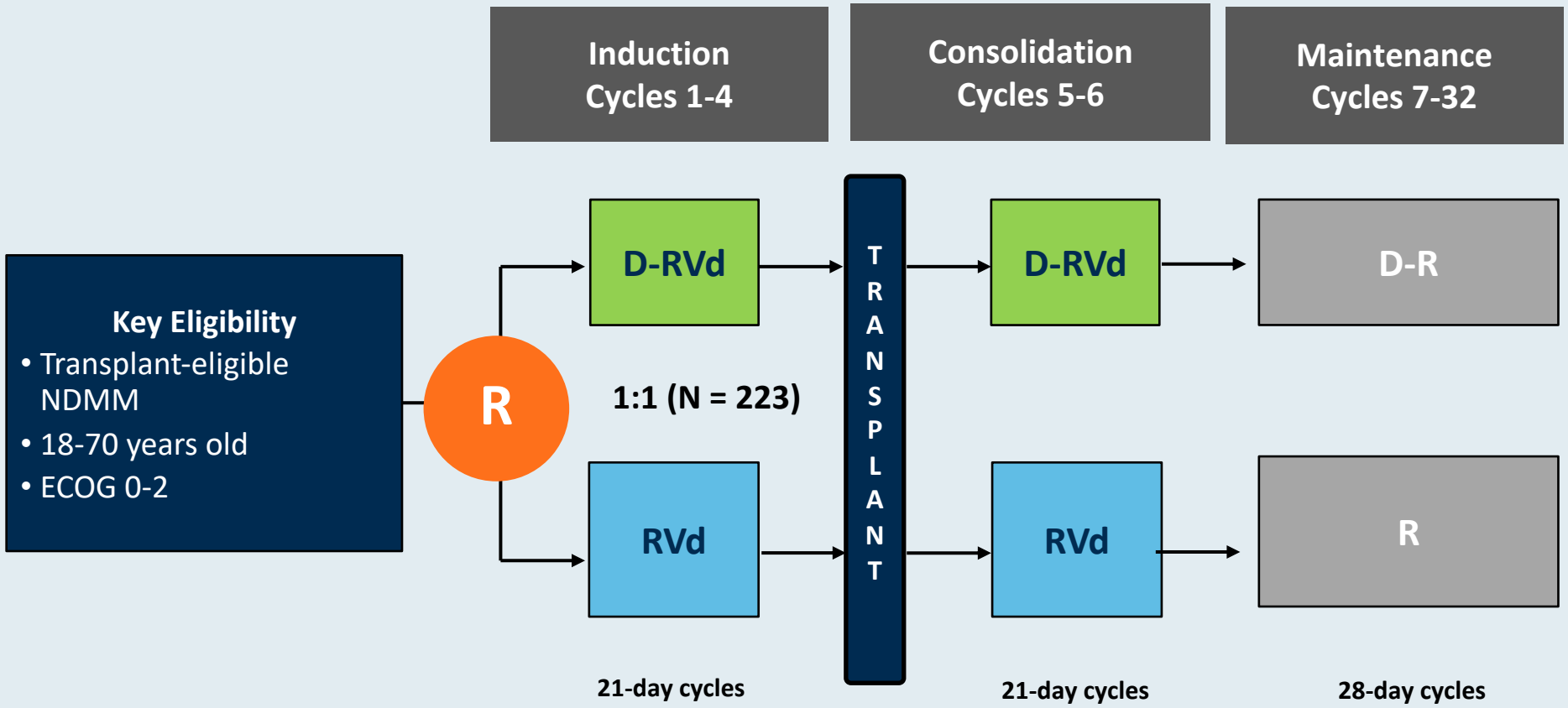
ASCO 2020;Abstract 8507.

Depth of Response to Isatuximab, Carfilzomib, Lenalidomide, and Dexamethasone (Isa-KRd) in Front-Line Treatment of High-Risk Multiple Myeloma: Interim Analysis of the GMMG-CONCEPT Trial

Weisel K et al.

ASCO 2020;Abstract 8508.

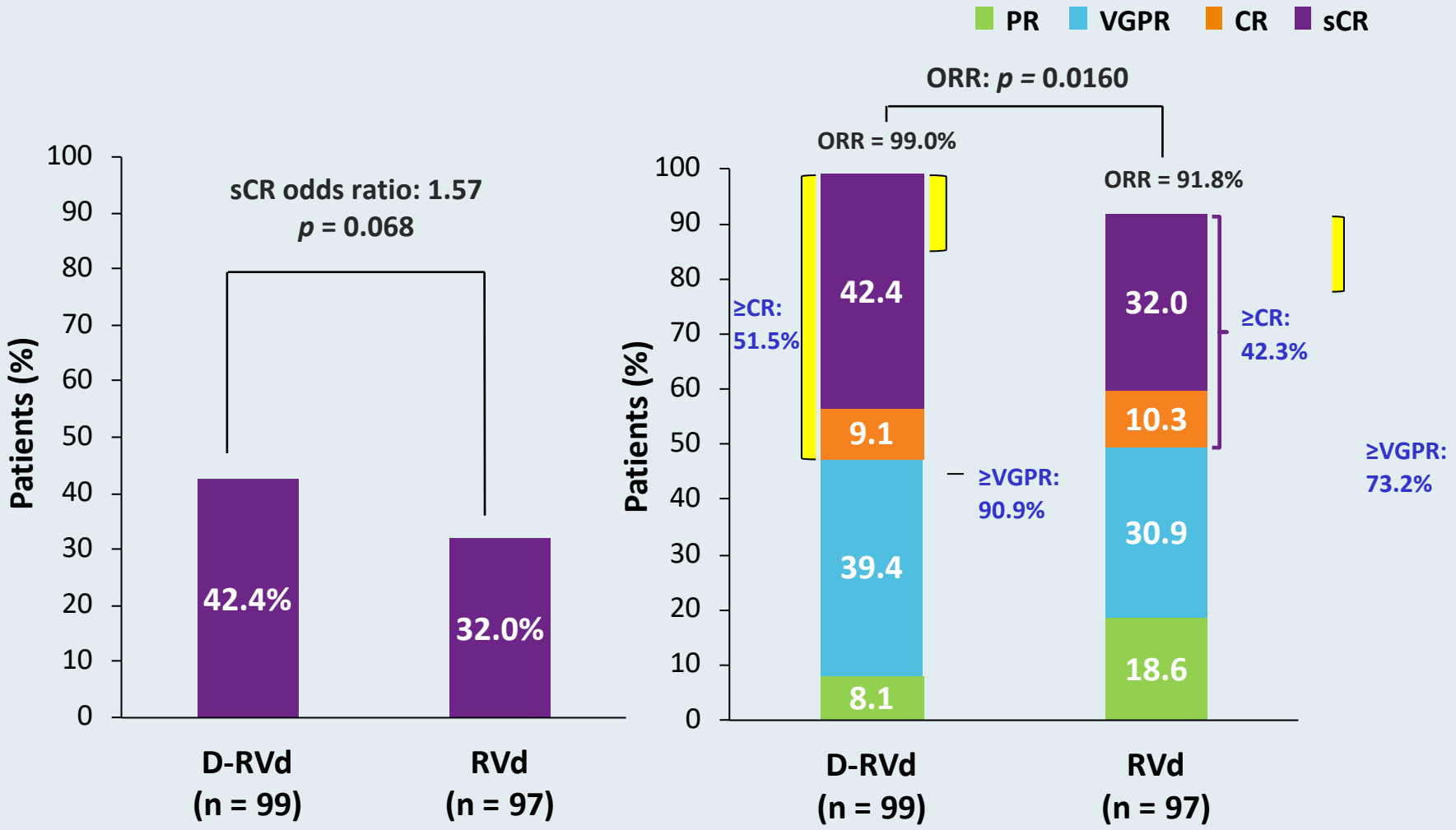
GRIFFIN Randomized Phase II Study Design



Primary endpoint: Stringent CR by end of consolidation

Voorhees P et al. IMW 2019;Abstract 906.
www.clinicaltrials.gov. Accessed January 23, 2020 (NCT02874742).

GRIFFIN Primary Endpoint: sCR at the End of Consolidation

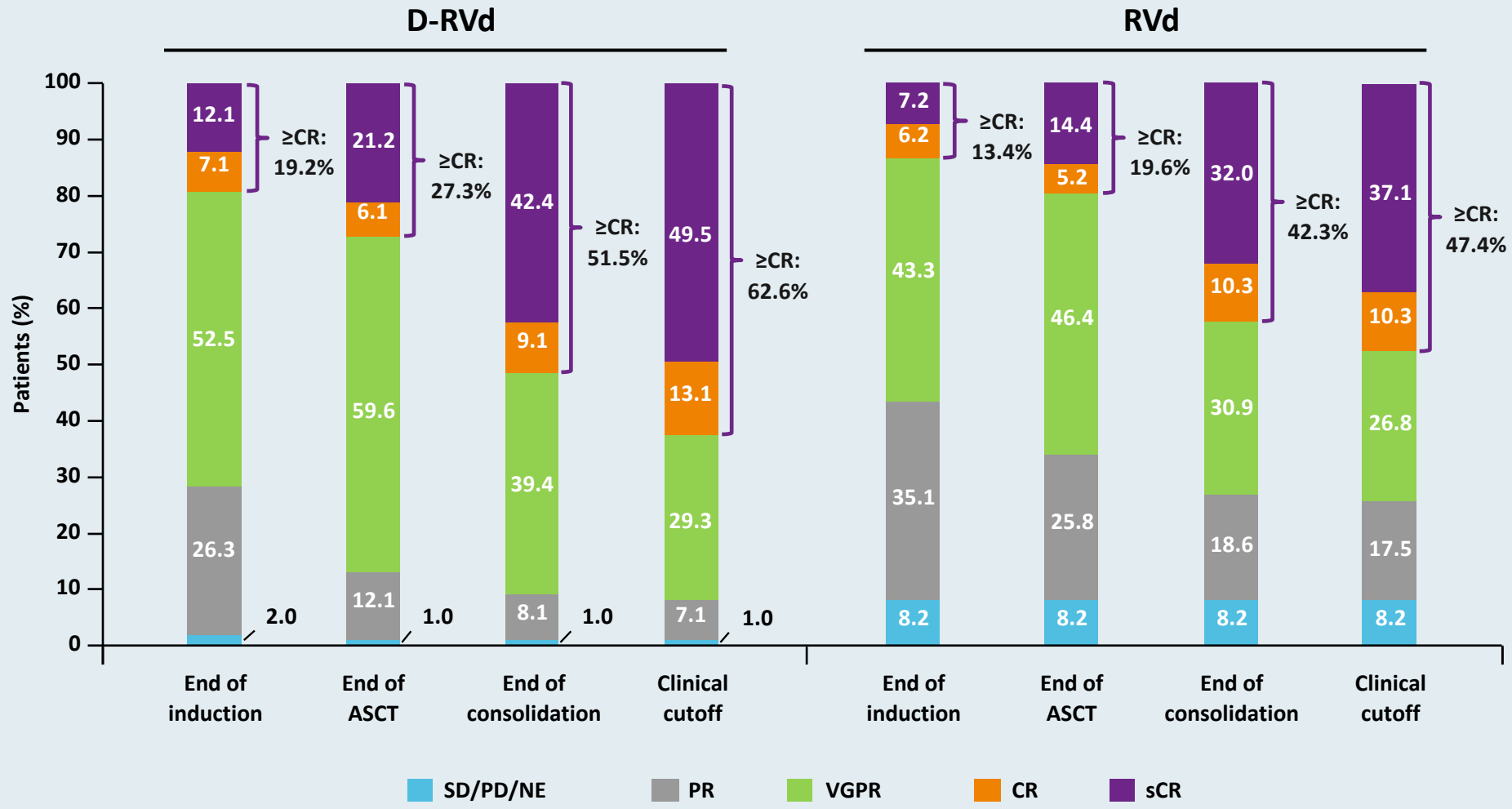


Voorhees P et al. IMW 2019;Abstract 906.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

GRIFFIN: Depth of Response Over Time



Voorhees P et al. IMW 2019;Abstract 906.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

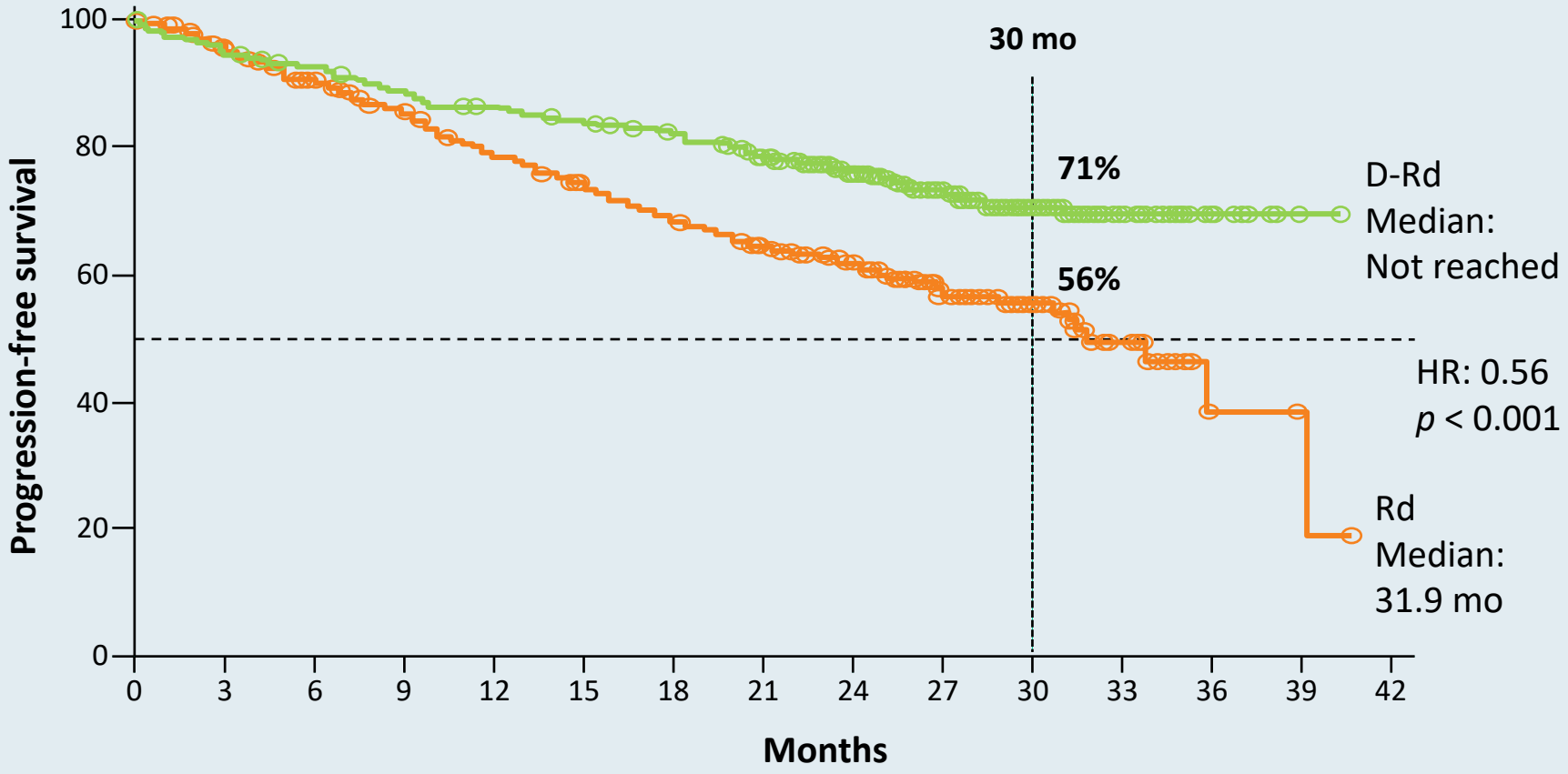
Daratumumab plus Lenalidomide and Dexamethasone for Untreated Myeloma

T. Facon, S. Kumar, T. Plesner, R.Z. Orlowski, P. Moreau, N. Bahlis, S. Basu, H. Nahi, C. Hulin, H. Quach, H. Goldschmidt, M. O'Dwyer, A. Perrot, C.P. Venner, K. Weisel, J.R. Mace, N. Raje, M. Attal, M. Tiab, M. Macro, L. Frenzel, X. Leleu, T. Ahmadi, C. Chiu, J. Wang, R. Van Rampelbergh, C.M. Uhlar, R. Kobos, M. Qi, and S.Z. Usmani, for the MAIA Trial Investigators*

N Engl J Med 2019;380(22):2104-15.

MAIA Primary Endpoint: Progression-Free Survival

NDMM Transplant Ineligible

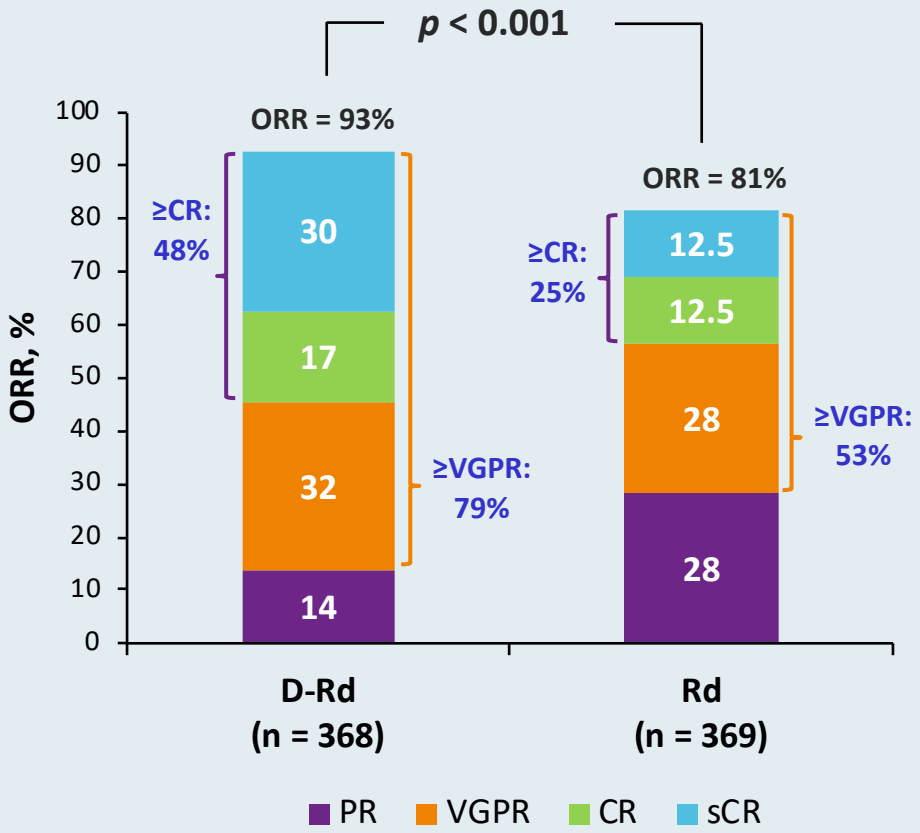


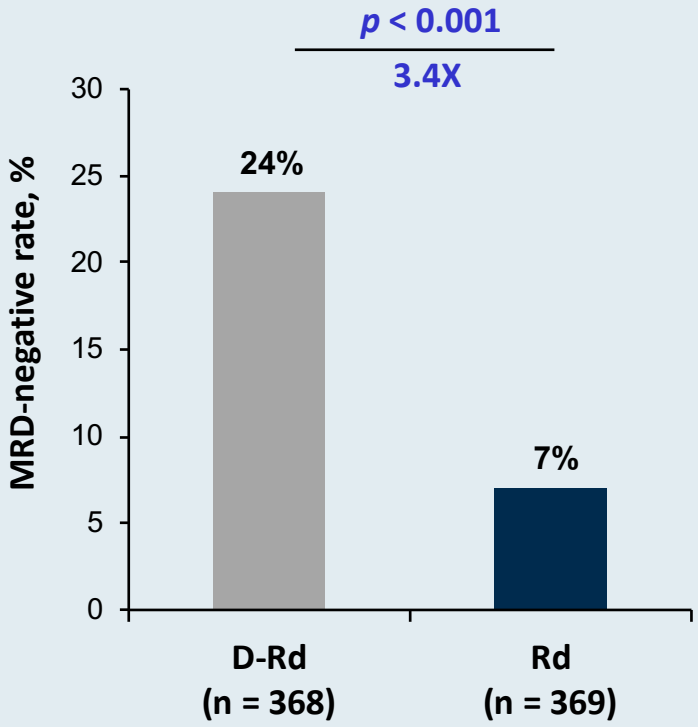
Facon T et al. *N Engl J Med* 2019;380(22):2104-15.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

MAIA: Overall Response Rate and MRD (NGS; 10^{-5} Sensitivity Threshold) Rate



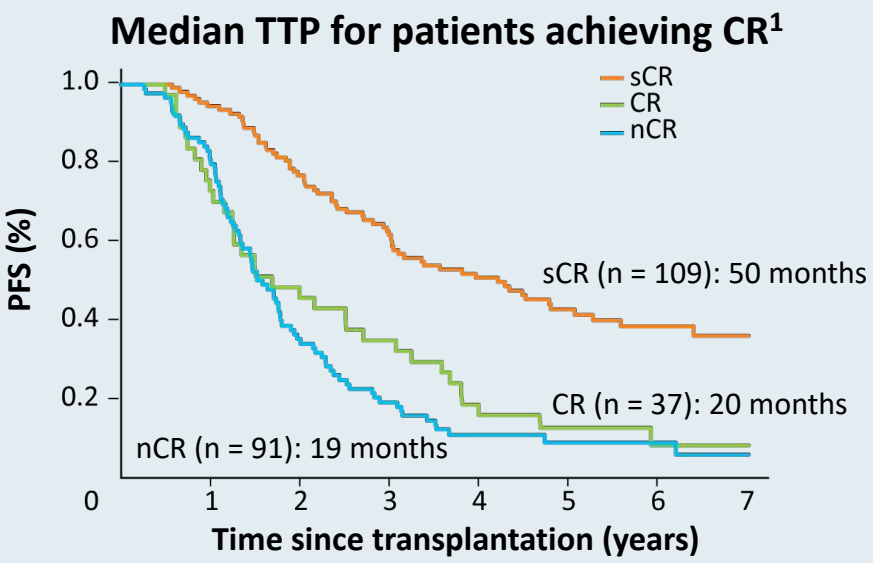


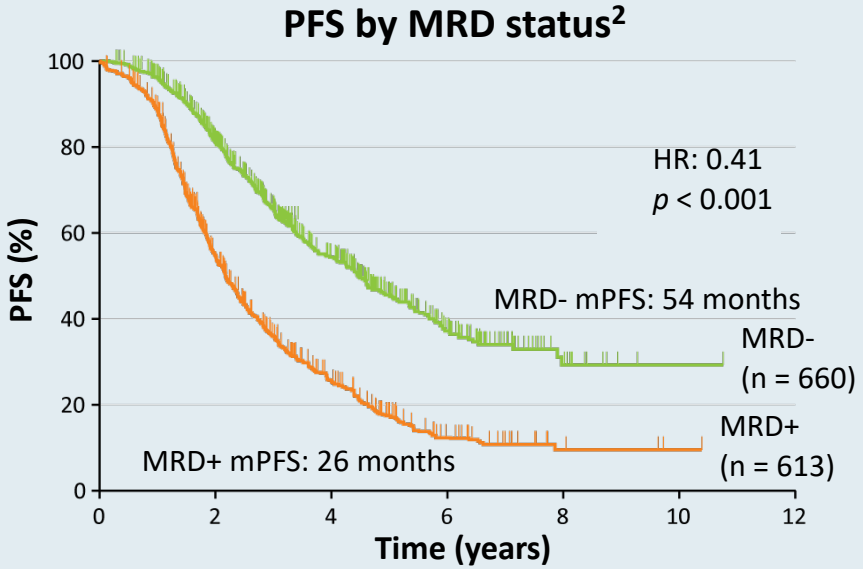
Facon T et al. *N Engl J Med* 2019;380(22):2104-15.

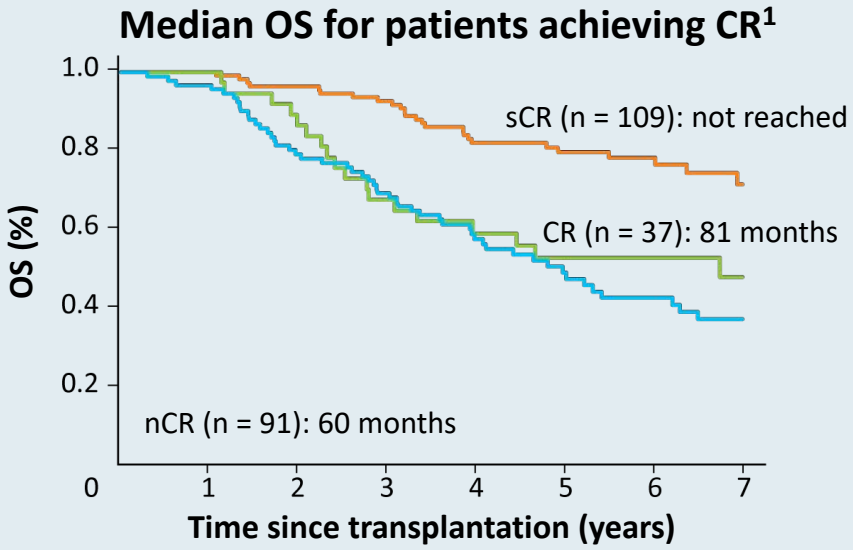
Co-provided by USF Health

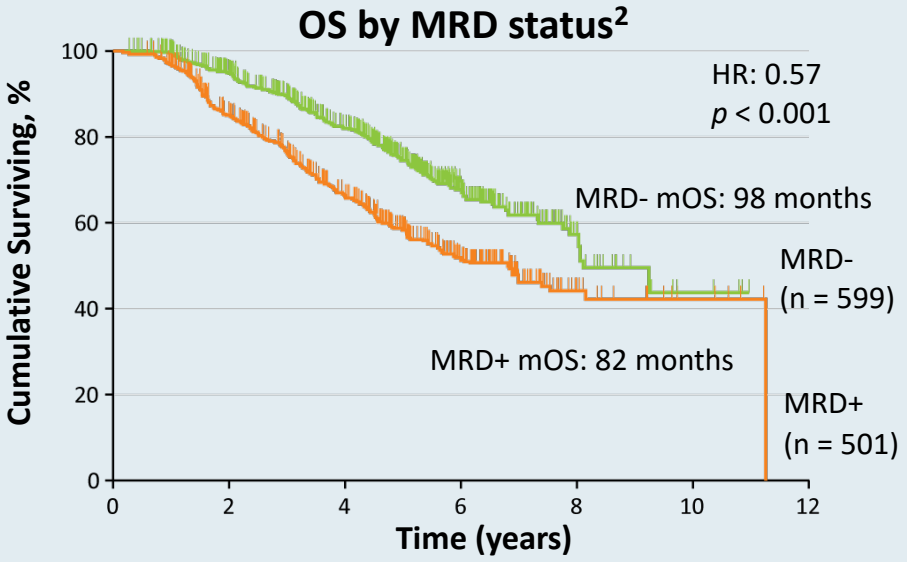
RTP RESEARCH TO PRACTICE

Stringent Complete Response (sCR) and MRD as a Surrogate Endpoint for PFS and OS









1. Kapoor P et al. *J Clin Oncol* 2013;31(36):4529-35.
2. Munshi NC et al. *JAMA Oncol* 2017:3(1):28-35.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

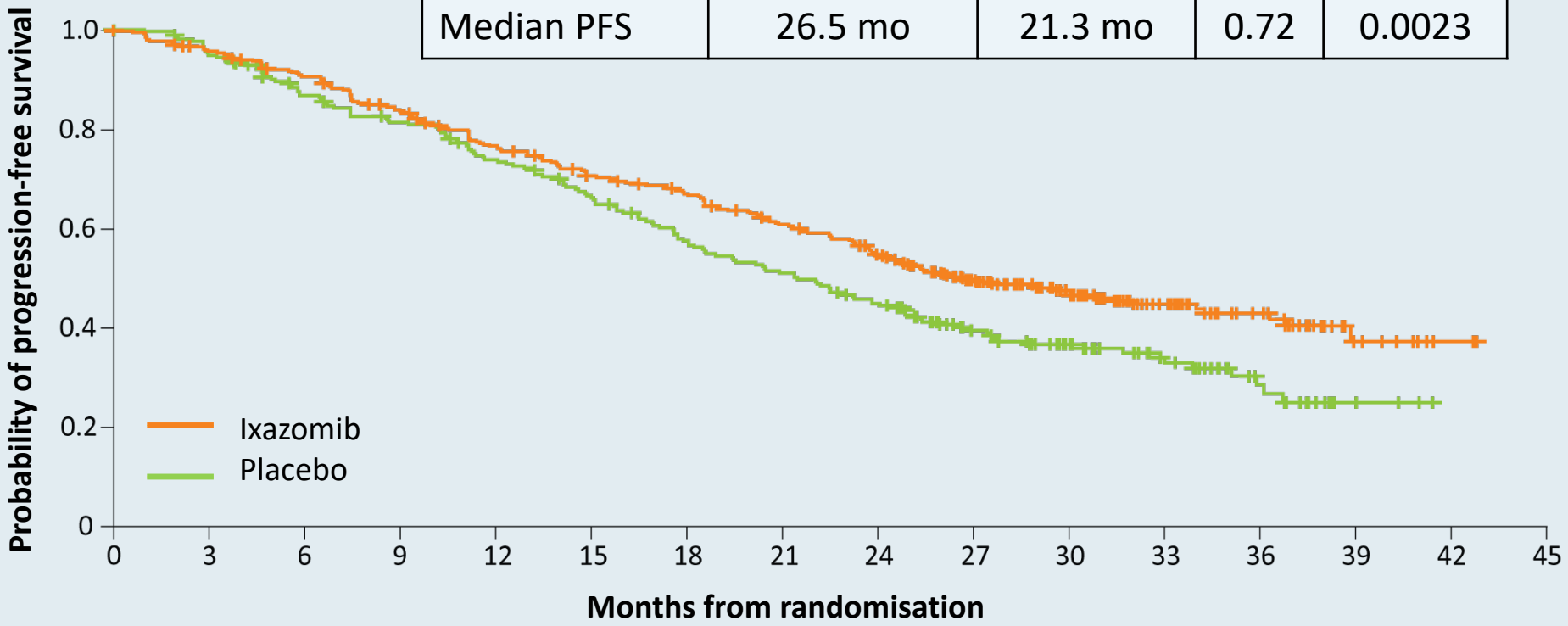
Oral ixazomib maintenance following autologous stem cell transplantation (TOURMALINE-MM3): a double-blind, randomised, placebo-controlled phase 3 trial

*Meletios A Dimopoulos, Francesca Gay, Fredrik Schjesvold, Meral Beksac, Roman Hajek, Katja Christina Weisel, Hartmut Goldschmidt, Vladimir Maisnar, Philippe Moreau, Chang Ki Min, Agnieszka Pluta, Wee-Joo Chng, Martin Kaiser, Sonja Zweegman, Maria-Victoria Mateos, Andrew Spencer, Shinsuke Iida, Gareth Morgan, Kaveri Suryanarayan, Zhaoyang Teng, Tomas Skacel, Antonio Palumbo, Ajeeta B Dash, Neeraj Gupta, Richard Labotka, S Vincent Rajkumar, on behalf of the TOURMALINE-MM3 study group**

Lancet 2019;393(10168):253-64.

TOURMALINE-MM3 Primary Endpoint: Progression-Free Survival (ITT)

	Ixazomib (n = 395)	Placebo (n = 261)	HR	*p*-value
Median PFS	26.5 mo	21.3 mo	0.72	0.0023



Dimopoulos MA et al. *Lancet* 2019;393(10168):253-64.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

Relapsed/Refractory Myeloma

Co-provided by USF Health RTP RESEARCH TO PRACTICE

FDA Approves Carfilzomib and Daratumumab with Dexamethasone for Multiple Myeloma

Press Release – August 20, 2020

"On August 20, 2020, the Food and Drug Administration approved carfilzomib and daratumumab in combination with dexamethasone for adult patients with relapsed or refractory multiple myeloma who have received one to three lines of therapy.

The efficacy of carfilzomib and daratumumab with dexamethasone was evaluated in two clinical trials, CANDOR and EQUULEUS."

https://www.fda.gov/drugs/drug-approvals-and-databases/fda-approves-carfilzomib-and-daratumumab-dexamethasone-multiple-myeloma

Co-provided by USF Health RTP RESEARCH TO PRACTICE

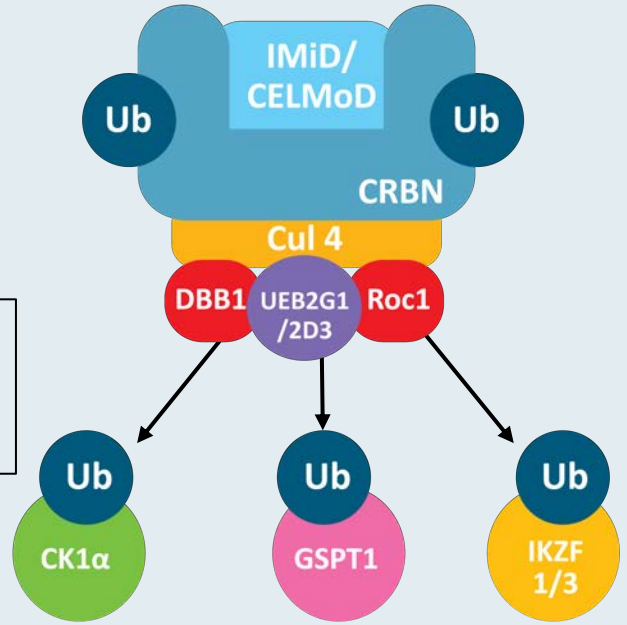
First-in-Human Phase I Study of the Novel CELMoD Agent CC-92480 Combined with Dexamethasone (DEX) in Patients (pts) with Relapsed/Refractory Multiple Myeloma (RRMM)

Richardson PG et al.

ASCO 2020;Abstract 8500.

CC-92480/Dexamethasone Combined with Bortezomib or Daratumumab or Carfilzomib

IMiD®	Indication
Thalidomide	Erythema Nodosum Erythema Leprosum Multiple Myeloma
Lenalidomide	Mantle Cell Lymphoma Multiple Myeloma Myelodysplastic Syndrome (5q-)
Pomalidomide	Multiple Myeloma Kaposi Sarcoma



Clinical trials	CELMoDs®
Multiple Myeloma Diffuse Large B-Cell Lymphoma CNS Lymphoma Glioblastoma Hepatocellular Carcinoma Chronic Lymphocytic Leukemia	CC-122
Multiple Myeloma Systemic Lupus Erythematosus	CC-220
Acute Myeloid Leukemia	CC-90009
Multiple Myeloma	CC-92480 Indisulam
Acute Myeloid Leukemia? (in vitro)	CC-885

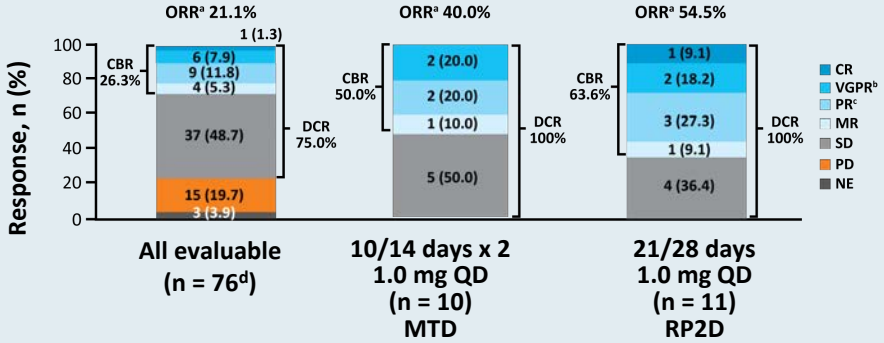
Abbreviation: CK1a: casein kinase 1a;
CELMods: Cereblon E3 Ligase Modulation Drugs;
CRL4: cullin-4 RING E3 ligase;
CRBN: Cereblon; CNS: Central Nervous System;
CUL4: Cullin-4; DDB1: DNA damage-binding protein 1;
GSPT1: G1 To S Phase Transition 1;
IKZF1: Ikaros zinc-finger protein 1;
IKZF3: Aiolos zonc-finger protein 3;
IMiDs: Immunomodulatory Drugs;
MDS: Myelodysplastic Syndrome;
Roc1: Ring finger protein;
UB: Ubiquitination
UBE2G1/2D3: Ubiquitin-conjugating enzymes

Holstein et al, Next-Generation Drugs. Targeting the Cereblon Ubiquitin Ligase. JCO 2018.
Lu G et al eLife 2018
Gandhi AK et al Br Haem 2014
Krönke J et al Science 2014
Hansen JD et al J Med Chem 2020
Uehara, T et al Nat Chem Biol 2017

McCarthy P. ASCO 2020 Discussant

CC-92480/Dexamethasone Combined with Bortezomib or Daratumumab or Carfilzomib

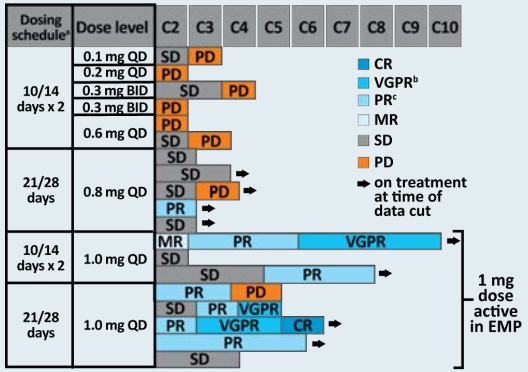
Response



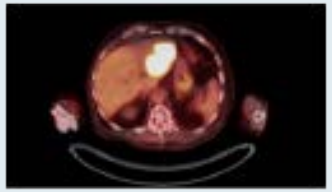
- At the RP2D 1.0 mg QD 21/28 days, 7 out of 11 patients were triple class-refractory[e]
  - 1 patient had CR, 1 VGPR, 2 PR, and 1 MR

Responses in patients with extramedullary plasmacytomas

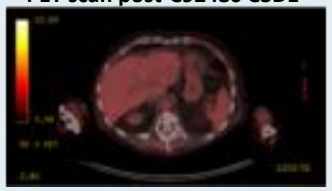
- Only patients on continuous schedules are shown



PET scan Pre-treatment



PET scan post-C92480 C3D1



[a] 1 patient in the 21/28 1.0 mg cohort had an unconfirmed VGPR as of the data cutoff date.
[b] 1 patient in the 21/28 0.8 mg cohort had an unconfirmed PR as of the data cutoff date.
[c] 1 patient in the 21/28 0.8 mg cohort had an unconfirmed PD as of the data cutoff date.

CI = confidence interval; CR = complete response; EMP = extramedullary plasmacytomas; MR = minimal response; PD = progressive disease; PET = positron emission tomography; PR = partial response; SD = stable disease; VGPR = very good partial response.

- Future
- NDMM and RRMM: Phase 1/2 of CC-92480 with dexamethasone in combination with bortezomib ***or*** daratumumab ***or*** carfilzomib NCT03989414
- Mitigating hematologic toxicity
- Role in the context of lenalidomide, pomalidomide, iberdomide

Optimal combination therapy

Induction, maintenance, salvage

DLTs by dose level

Dosing schedule		Dose level	Patients, n	DLTs
Continuous	10/14 days x 2	0.1 mg QD	3	—
		0.2 mg QD	4	1 patient (neutropenia)
		0.3 mg QD	4	—
		0.6 mg QD	8	1 patient (pneumonitis)
		1.0 mg QD	10	2 patients (neutropenia; febrile neutropenia)
	21/28 days	0.8 mg QD	12	—
		1.0 mg QD	11	3 patients (neutropenia; febrile neutropenia; sepsis)
Intensive	3/14 days x 2	0.2 mg BID	4	—
		0.4 mg BID	3	—
		0.8 mg BID	4	—
	7/14 days x 2	0.8 mg BID	3	—
		1.6 mg QD	5	1 patient (febrile neutropenia)
		2.0 mg QD	5	2 patients (pneumonitis; increased ALT, neutropenia, and thrombocytopenia)

- MTD was determined at 1.0 mg QD for both 10/14 days x 2 and 21/28 days schedules

ALT, alanine transaminase; BID, twice daily; DLT, dose-limiting toxicity; MTD, maximum tolerated dose; QD, one daily.

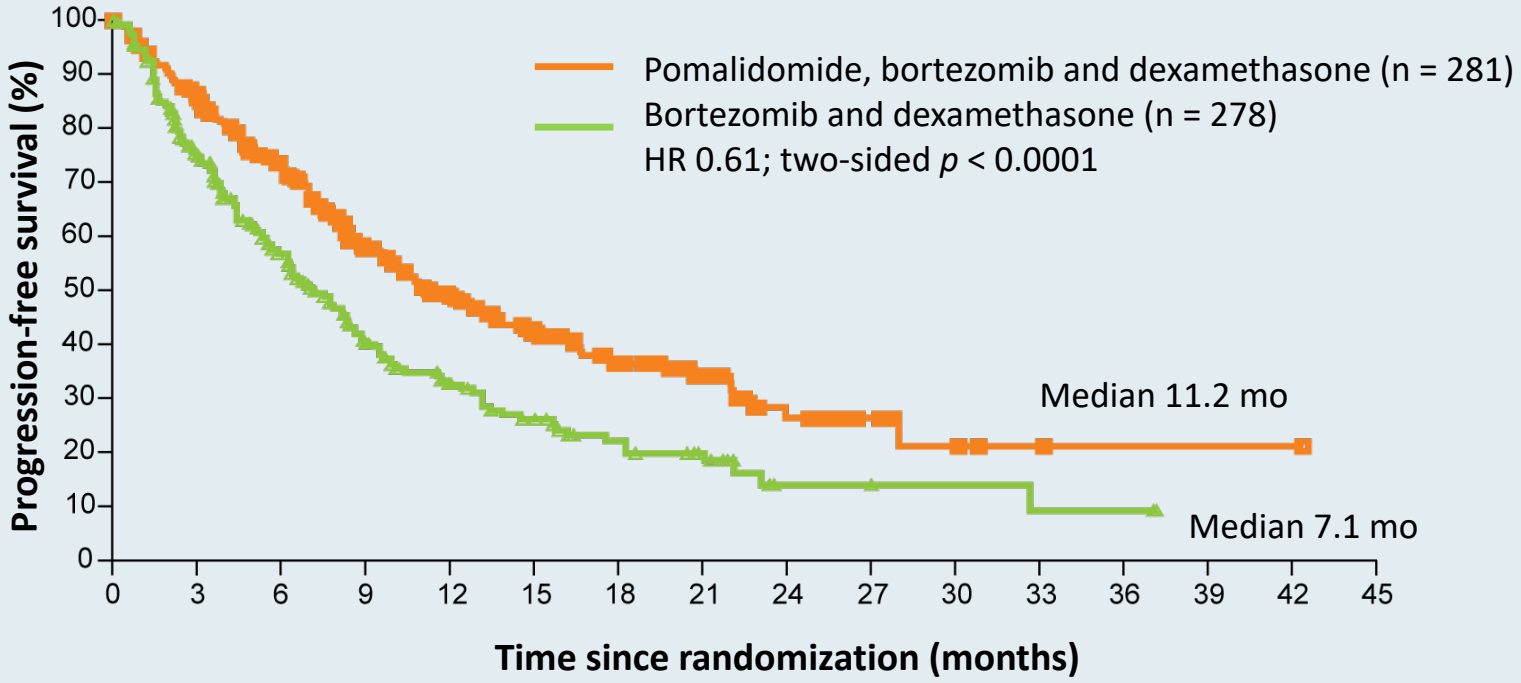
Weekly Selinexor, Bortezomib, and Dexamethasone (SVd) versus Twice Weekly Bortezomib and Dexamethasone (Vd) in Patients with Multiple Myeloma (MM) After One to Three Prior Therapies: Initial Results of the Phase III BOSTON Study

Dimopoulos MA et al.

ASCO 2020;Abstract 8501.

OPTIMISMM: Phase III Trial of Pomalidomide with Bortezomib and Dexamethasone in Relapsed/Refractory MM

All patients with 1-3 prior lines of therapy (including 2 or more cycles of lenalidomide)



Median PFS	Pom-bort/dex	Bort/dex	HR (*p*-value)
Refractory to lenalidomide (n = 200; 191)	9.5 mo	5.6 mo	0.65 (0.0008)
Refractory to lenalidomide and 1 prior line of treatment (n = 64; 65)	17.8 mo	9.5 mo	0.55 (0.03)

Richardson PG et al. *Lancet Oncol* 2019;20(6):781-94.

Daratumumab-Based Regimens for Relapsed and/or Refractory MM

	POLLUX[1] Dara-Rd vs Rd	CASTOR[2] Dara-Vd vs Vd
Prior therapies	**Bortezomib: 84%** **Len/Thal: 18%/43%** **IMiD + PI: 44%**	**Bortezomib: 65%** **Len/Thal: 42%/49%** **IMiD + PI: 48%**
Median lines prior Tx	**1 (range: 1-11)**	**2 (range: 1-10)**
Median PFS (mo) – ITT **(n = 569; 498)**	**NR vs 17.5** HR 0.41, $p < 0.0001$	**16.7 vs 7.1** HR 0.31, $p < 0.0001$
Median PFS (mo) – prior Bort **(n = 479; 326)**	**NR vs 17.5** HR 0.40, $p < 0.0001$	**12.1 vs 6.7** HR 0.35
Median PFS (mo) – prior Len **(n = 100; 209)**	**NR vs 18.6** HR 0.32, $p = 0.0008$	**9.5 vs 6.1** HR 0.38

NR = not reached

[1] Dimopoulos MA et al. *Haematologica* 2018;103(12):2088-96;
[2] Spencer A et al. *Haematologica* 2018;103(12):2079-87.

FDA Approval of Subcutaneous Daratumumab (Daratumumab and Hyaluronidase-fihj) for Newly Diagnosed or Relapsed/Refractory MM

Press Release – May 1, 2020

"On May 1, 2020, the Food and Drug Administration approved daratumumab and hyaluronidase-fihj for adult patients with newly diagnosed or relapsed/refractory multiple myeloma. This new product allows for subcutaneous dosing of daratumumab."

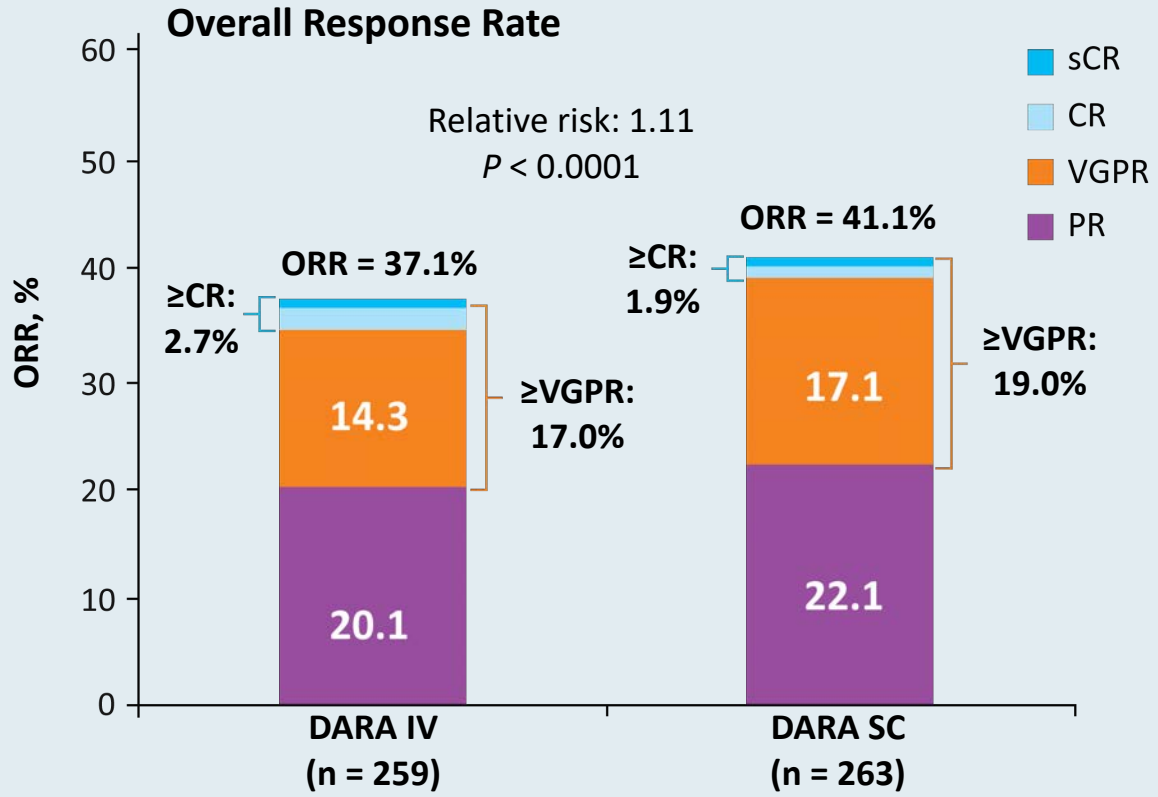
Daratumumab and hyaluronidase-fihj is approved for certain indications that intravenous daratumumab had previously received.

Efficacy of daratumumab and hyaluronidase-fihj (monotherapy) was evaluated in COLUMBA (NCT03277105), an open-label noninferiority trial randomly assigning 263 patients to daratumumab and hyaluronidase-fihj and 259 to intravenous daratumumab.

https://www.fda.gov/drugs/drug-approvals-and-databases/fda-approves-daratumumab-and-hyaluronidase-fihj-multiple-myeloma

Co-provided by USF Health RTP RESEARCH TO PRACTICE

COLUMBA: Phase III Noninferiority Trial of Subcutaneous (SC) versus Intravenous (IV) Daratumumab for Relapsed or Refractory MM

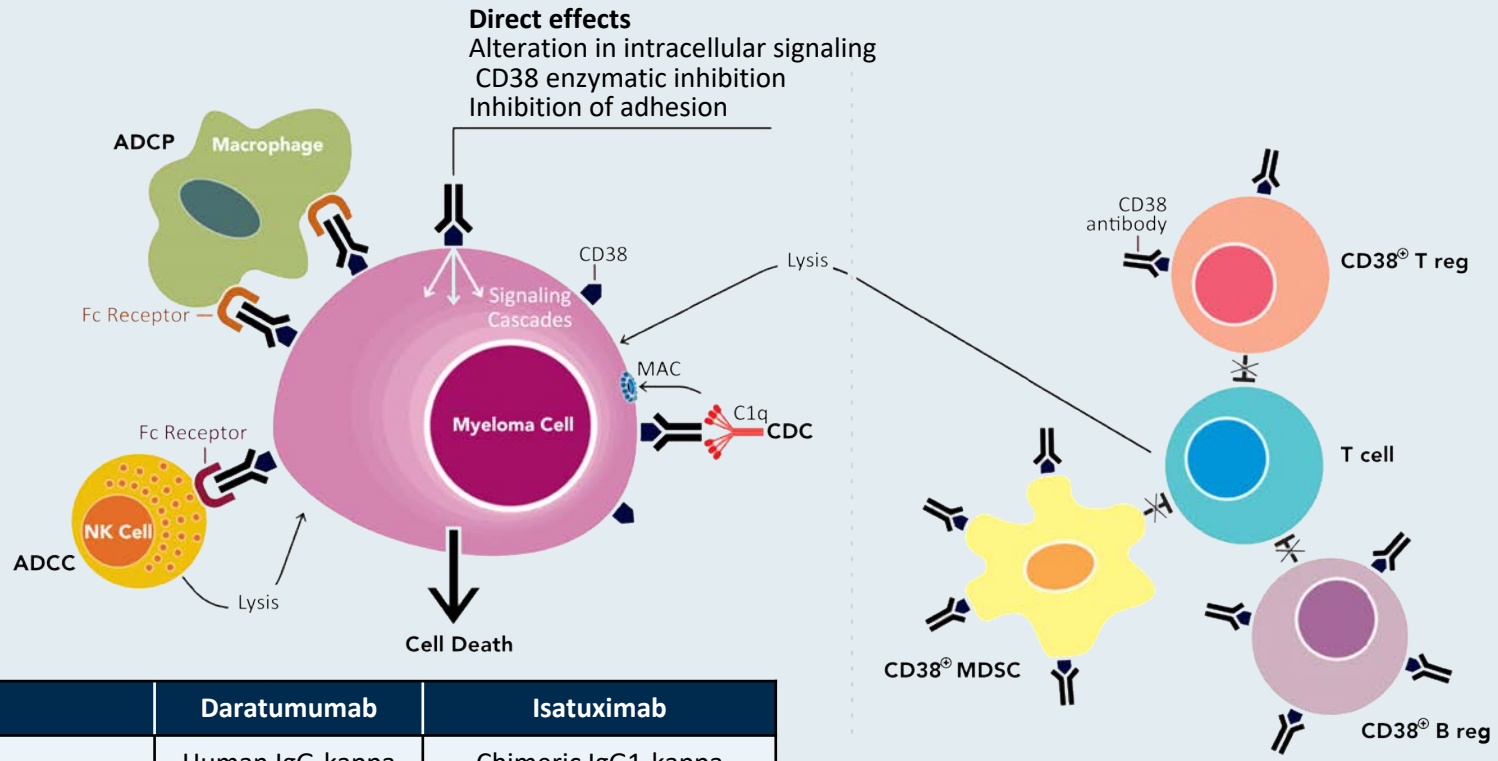


	DARA IV (n = 258)	DARA SC (n = 260)	Odds ratio (*p*-value)
Rate of infusion-related reactions	34.5%	12.7%	0.28 (<0.0001)

Mateos M-V et al. ASCO 2019;Abstract 8005.

Anti-CD38 Antibodies: Mechanism of Action, Structural and Pharmacologic Similarities and Differences

Fc-dependent immune effector mechanisms and direct effects **Immunomodulatory effects**



Mechanism of action	Daratumumab	Isatuximab
Origin, isotype	Human IgG-kappa	Chimeric IgG1-kappa
CDC	+++	+
ADCC	++	++
ADCP	+++	Not determined
PCD direct	—	++
PCD cross linking	+++	+++
Modulation ectoenzyme function	+	+++

van de Donk NWCJ et al. *Blood* 2018;131(1):13-29.

FDA Approves New Therapy for Patients with Previously Treated Multiple Myeloma

Press Release – March 02, 2020

"Today, the US Food and Drug Administration approved isatuximab-irfc, in combination with pomalidomide and dexamethasone, for the treatment of adult patients with multiple myeloma who have received at least two prior therapies including lenalidomide and a proteasome inhibitor.

The FDA approved isatuximab-irfc based on the results of a clinical trial involving 307 patients with relapsed and refractory multiple myeloma who had received at least two prior therapies, including lenalidomide and a proteasome inhibitor.

Patients who received isatuximab-irfc in combination with pomalidomide and low-dose dexamethasone showed improvement in PFS with a 40% reduction in the risk of disease progression or death compared to patients who received pomalidomide and dexamethasone. These patients also had an overall response rate of 60.4%. In comparison, the patients who only received pomalidomide and low-dose dexamethasone had an overall response rate of 35.3%."

https://www.fda.gov/news-events/press-announcements/fda-approves-new-therapy-patients-previously-treated-multiple-myeloma

Co-provided by USF Health RTP RESEARCH TO PRACTICE

FDA Granted Accelerated Approval to Belantamab Mafodotin-blmf for Multiple Myeloma

Press Release – August 5, 2020

"The Food and Drug Administration granted accelerated approval to belantamab mafodotin-blmf for adult patients with relapsed or refractory multiple myeloma who have received at least 4 prior therapies, including an anti-CD38 monoclonal antibody, a proteasome inhibitor, and an immunomodulatory agent.

Belantamab mafodotin-blmf was evaluated in DREAMM-2 (NCT 03525678), an open-label, multicenter trial. Patients received either belantamab mafodotin-blmf, 2.5 mg/kg or 3.4 mg/kg intravenously, once every 3 weeks until disease progression or unacceptable toxicity.

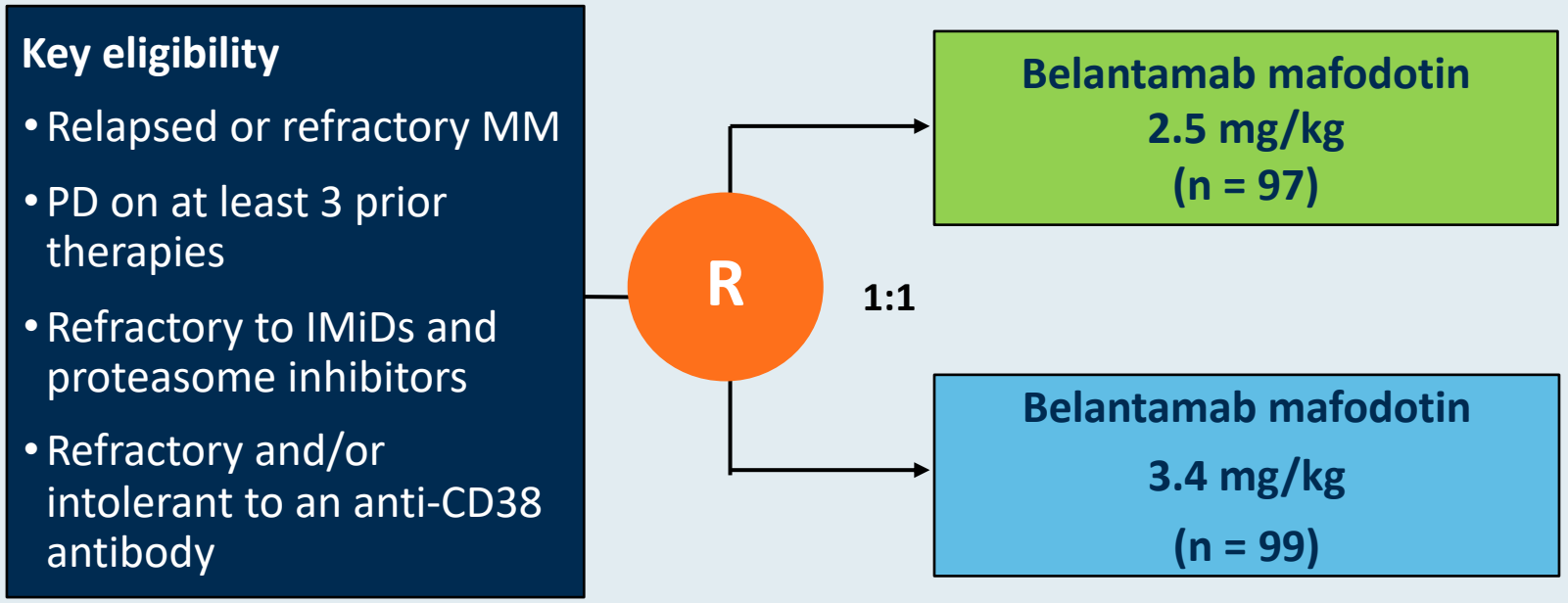
Efficacy was based on overall response rate (ORR) and response duration, as evaluated by an independent review committee using the International Myeloma Working Group uniform response criteria. The ORR was 31%. Seventy-three percent of responders had response durations ≥6 months. These results were observed in patients receiving the recommended dose of 2.5 mg/kg.

The prescribing information includes a Boxed Warning stating belantamab mafodotin-blmf causes changes in the corneal epithelium resulting in alterations in vision, including severe vision loss and corneal ulcer, and symptoms, such as blurred vision and dry eyes. Ophthalmic exams at baseline, prior to each dose, and promptly for worsening symptoms should be conducted."

https://www.fda.gov/drugs/drug-approvals-and-databases/fda-granted-accelerated-approval-belantamab-mafodotin-blmf-multiple-myeloma

Co-provided by USF Health RTP RESEARCH TO PRACTICE

DREAMM-2 Randomized Phase II Study Design

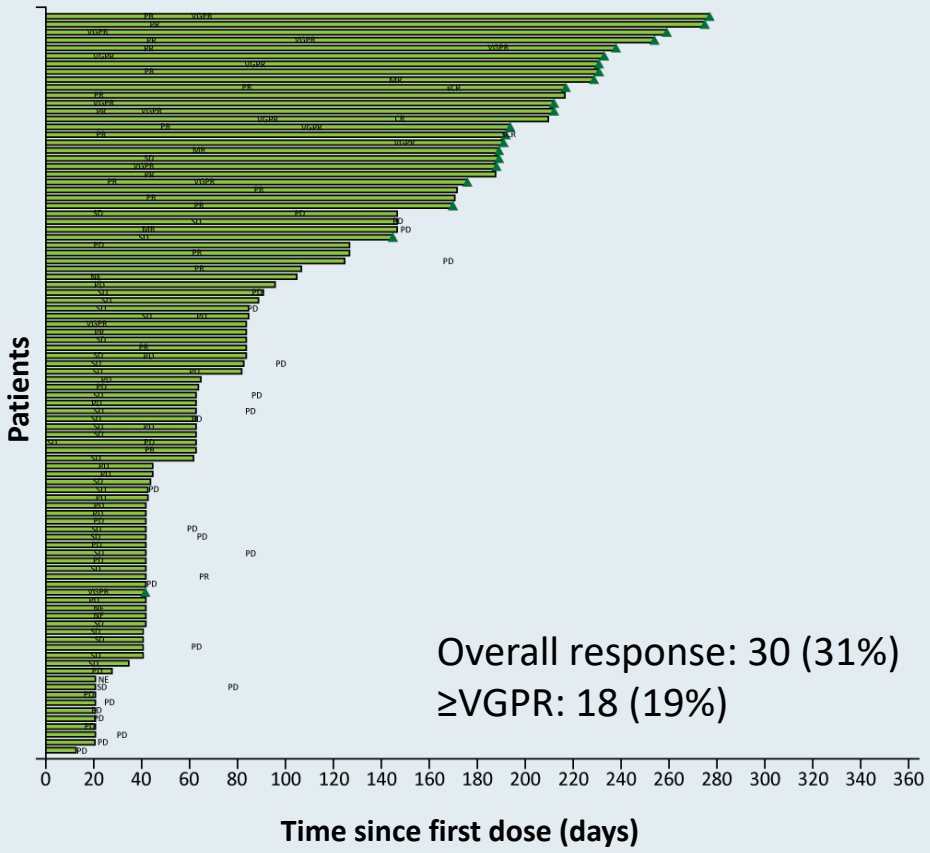


Primary endpoint: Overall response in the intent-to-treat population as determined by an independent review committee

Lonial S et al. *Lancet Oncol* 2020;21(2):207-21.

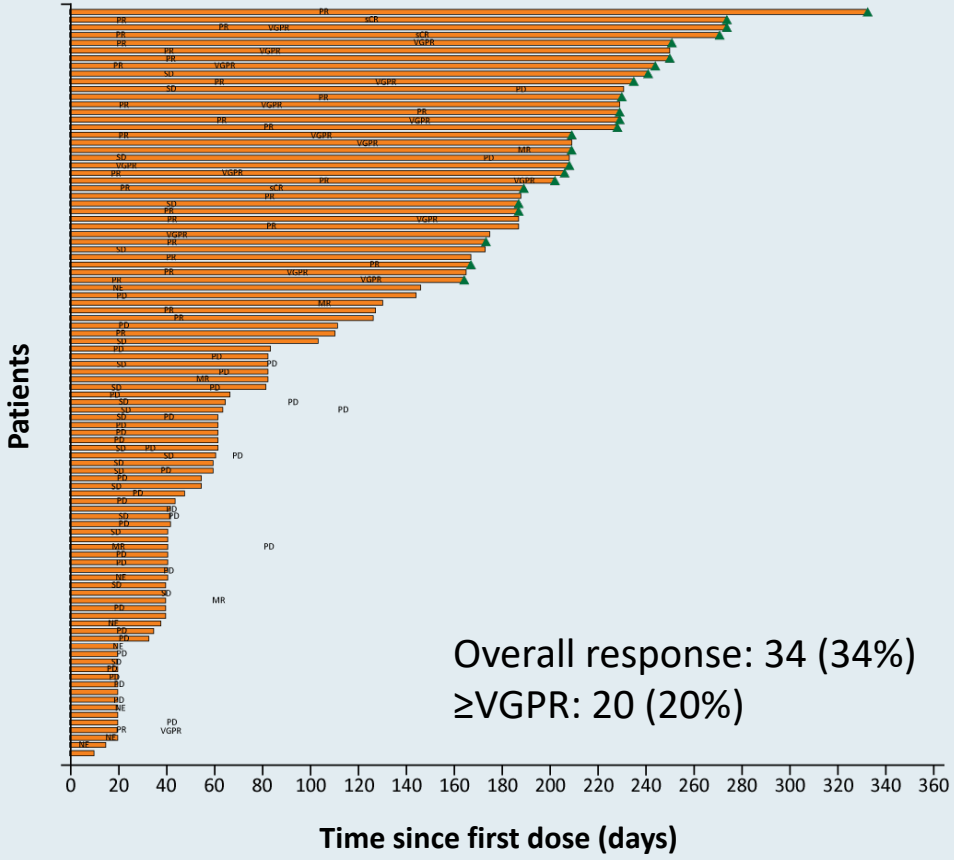
DREAMM-2: Response and Duration of Response

2.5 mg/kg



Overall response: 30 (31%)
≥VGPR: 18 (19%)

3.4 mg/kg



Overall response: 34 (34%)
≥VGPR: 20 (20%)

Lonial S et al. *Lancet Oncol* 2020;21(2):207-21.

DREAMM-2: Select Adverse Events

Adverse events (AEs) of special interest, any grade	Belantamab mafodotin 2.5 mg/kg (n = 95)	Belantamab mafodotin 3.4 mg/kg (n = 99)
Thrombocytopenia	35%	59%
Infusion-related reactions	21%	16%
Corneal events	71%	75%
Drug-related serious AEs		
Infusion-related reactions	3%	2%
Pyrexia	6%	5%
Sepsis	2%	2%
Pneumonia	4%	12%

Lonial S et al. *Lancet Oncol* 2020;21(2):207-21.

DREAMM-6: Safety and Tolerability of Belantamab Mafodotin in Combination with Bortezomib/Dexamethasone in Relapsed/Refractory Multiple Myeloma (RRMM)

Nooka AK et al.

ASCO 2020;Abstract 8502.

Novel Agents in Late-Stage Development

Co-provided by USF Health
RTP RESEARCH TO PRACTICE

Idecabtagene Vicleucel (ide-cel; bb2121), a BCMA-Targeted CAR T-Cell Therapy, in Patients with Relapsed and Refractory Multiple Myeloma (RRMM): Initial KarMMa Results

Munshi NC et al.
ASCO 2020;Abstract 8503.

Co-provided by USF Health RTP RESEARCH TO PRACTICE

Update of CARTITUDE-1: A Phase Ib/II Study of JNJ-4528, A B-cell Maturation Antigen (BCMA)-Directed CAR-T-Cell Therapy, in Relapsed/Refractory Multiple Myeloma

Berdeja JG et al.

ASCO 2020;Abstract 8505.

Orvacabtagene Autoleucel (orva-cel), A B-cell Maturation Antigen (BCMA)-Directed CAR T Cell Therapy for Patients (pts) with Relapsed/Refractory Multiple Myeloma (RRMM): Update of the Phase 1/2 EVOLVE Study (NCT03430011)

Mailankody S et al.

ASCO 2020;Abstract 8504.

ASCO 2020: 3 BCMA CAR-T Studies

Characteristics Summary

	KarMMa: idecabtagene vicleucel (n = 128)	EVOLVE: orvacabtagene autoleucel (n = 62)	CARTITUDE-1: JNJ-4528 (n = 29)
Age	61 (33-78)	61 (33-77)	60 (50-75)
High risk cytogenetics, %	35	41*	27
Tumor burden in BM, %	>50% PC = 51	—	≥60% PC = 24
Extramedullary PCs, %	39	23	10
Median prior line of therapy	6 (3-16)	6 (3-18)	5 (3-18)
Triple refractory, %	84	94	86
Bridging therapy, %	88	63	79
Unique properties	Human BCMA, 4-1BB, CD3z	Modified spacer, CD4: CD8 enriched for CM	Median cell dose 0.72x106 cells/kg 2 BCMA single chain antibodies

* Included +1q21

Patel K. ASCO 2020 Discussant

ASCO 2020: 3 BCMA CAR-T Studies

Safety

	KarMMa	EVOLVE	CARTITUDE-1
ANC ≥G3, % ⬇	89	90	100
plts ≥G3, % ⬇	52	47	69
CRS: all, ≥G3, %	84, 6	89, 3	93, 7
Med. time to CRS, duration, days	1 (1-12) 5 (1-63)	2 (1-4) 4 (1-10)	7 (2-12) 4 (2-64)
ICANS: all, ≥G3, %	17, 3	13, 3	10, 3
HLH/MAS, %	—	5	? 7 (lfts)
Infections: all, ≥G3 %	69, —	40, 13	—, 19
Toci/steroid/ anakinra use, %	52/15/0	76/52/23	79/21/21

? This was not listed at MAS/HLH, I am just speculating → could this have been early MAS

Efficacy

	KarMMa (n = 128)	EVOLVE (n = 62)	CARTITUDE-1 (n = 29)
ORR, %	73 (66-81)	92	100
sCR/CR, %	33	36	86
MRD neg ≥10^{-5}, % (of evaluable)	94	84	81
PFS, DoR, months	8.8/10.7	NR*	NR**
Screened Apheresed Treated	150 140 128	—	35 35 29

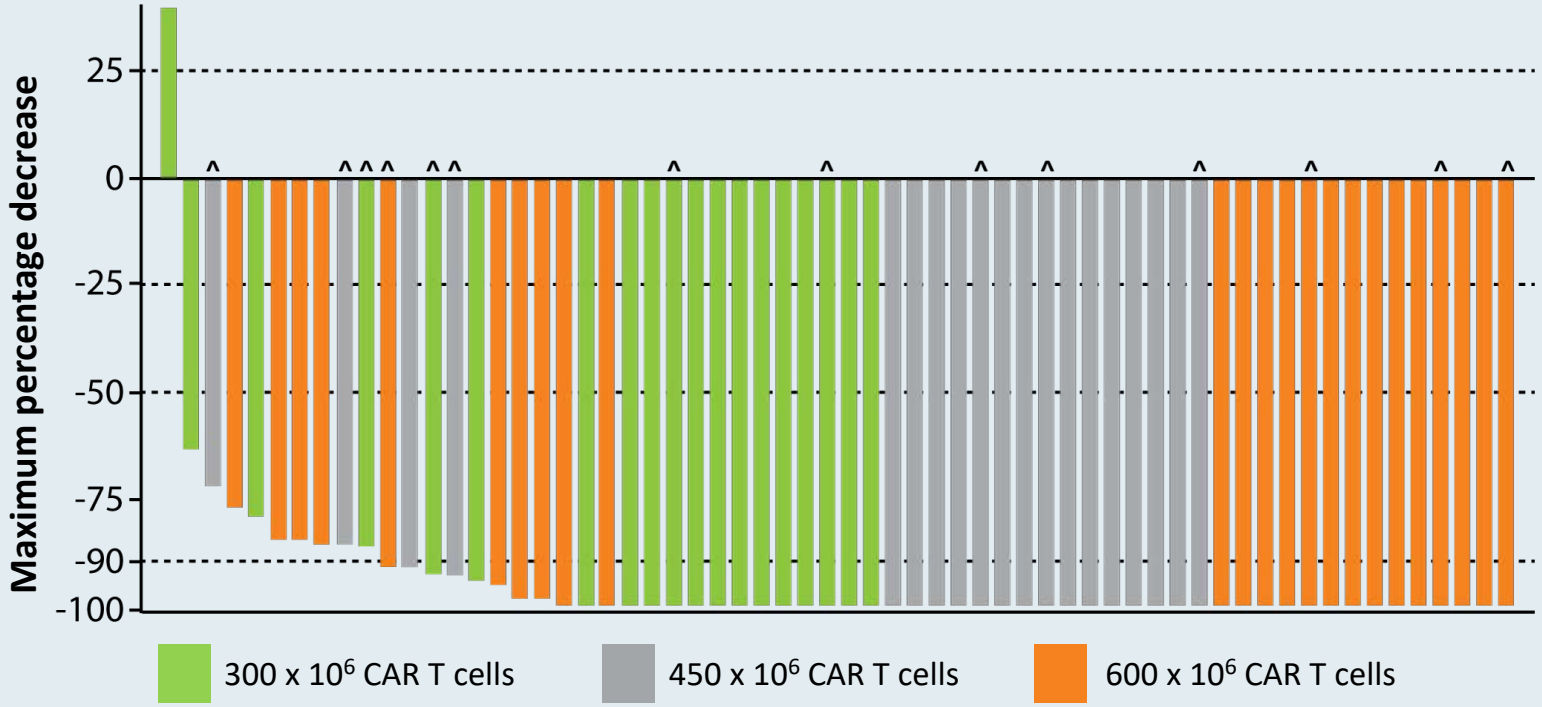
* 300 x 10^6 cell dose cohort (lowest) = PFS 9.3 months, other med F/U = 8.8 and 2.3 month
** 9 mo PFS = 86%

Patel K. ASCO 2020 Discussant

EVOLVE BCMA CAR-T Study

Look at that waterfall!

EVOLVE: Deep tumor burden reduction across dose levels



Serological responses* were observed in all patients treated at 450 x 10^6 and 600 x 108DLs

* Involved serum or urine parapretein, free light chains. ^ Patient with baseline extramedullary plasmacytoma.

Patel K. ASCO 2020 Discussant

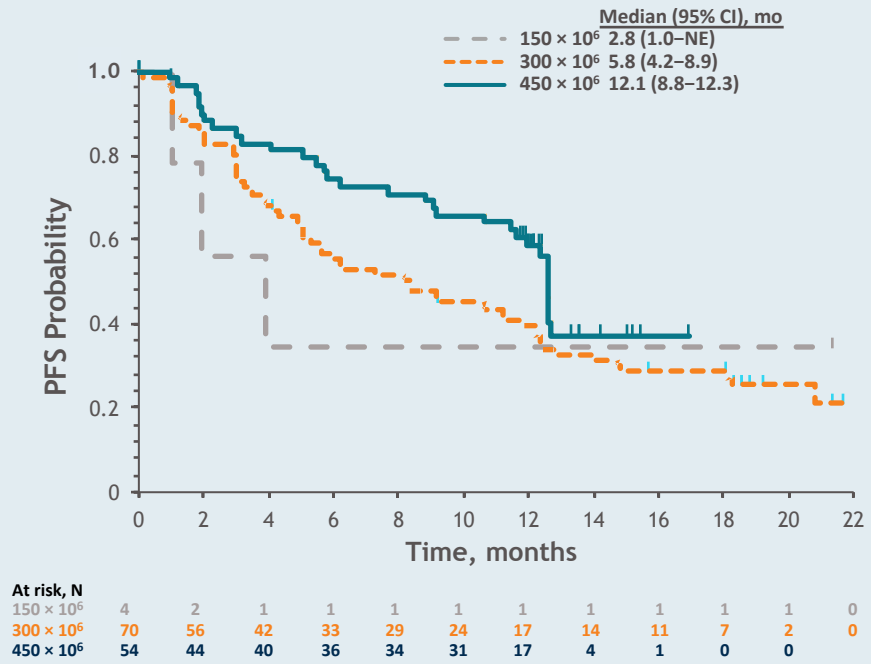
Co-provided by USF Health

RTP RESEARCH TO PRACTICE

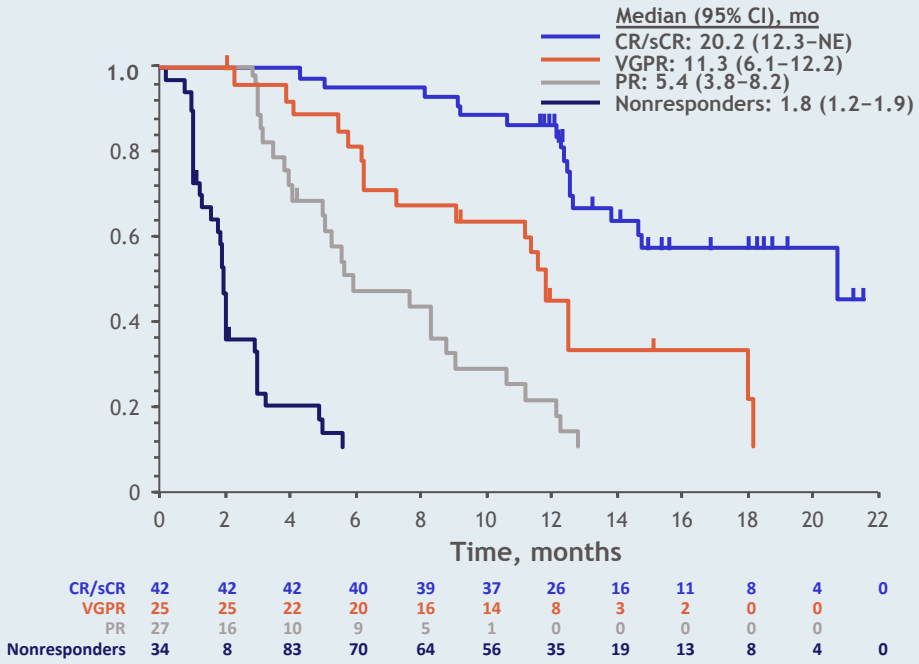
Idecabtagene Vicleucel BCMA CAR-T Study

Progression-free survival with single-cell infusion!

PFS by Target Dose



PFS by Best Response



- **PFS increased with higher target dose; median PFS was 12 mo at 450 × 10^6 CAR+ T cells**

- **PFS increased by depth of response; median PFS was 20 mo in patients with CR/sCR**

Patel K. ASCO 2020 Discussant

Co-provided by USF Health

RTP RESEARCH TO PRACTICE

Optimizing the Selection and Sequencing of Therapy for Patients with Chronic Lymphocytic Leukemia

A Meet The Professor Series

Friday, September 18, 2020
12:00 PM – 1:00 PM ET

Faculty

Matthew S Davids, MD, MMSc

Moderator

Neil Love, MD

RTP
RESEARCH
TO PRACTICE

Thank you for joining us!

CME and MOC credit information will be emailed to each participant within 5 days.

Co-provided by USF Health

RTP RESEARCH TO PRACTICE