

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Advanced Gastrointestinal Cancers

Eileen M O'Reilly, MD

Winthrop Rockefeller Endowed Chair in Medical Oncology
Section Head, Hepatopancreaticobiliary and Neuroendocrine Cancers
Co-Director, Medical Initiatives
David M Rubenstein Center for Pancreatic Cancer Research
Attending Physician, Member
Memorial Sloan Kettering Cancer Center
Professor of Medicine
Weill Cornell Medical College
New York, New York

Commercial Support

This activity is supported by an educational grant from Lilly.

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 companies: AbbVie Inc, Adaptive Biotechnologies Corporation, ADC Therapeutics, Agios Pharmaceuticals Inc, Alexion Pharmaceuticals, Amgen Inc, Array BioPharma Inc, a subsidiary of Pfizer Inc, Astellas, AstraZeneca Pharmaceuticals LP, Aveo Pharmaceuticals, Bayer HealthCare Pharmaceuticals, BeiGene Ltd, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Coherus BioSciences, Daiichi Sankyo Inc, Eisai Inc, Epizyme Inc, Exact Sciences Inc, Exelixis Inc, Five Prime Therapeutics Inc, Foundation Medicine, G1 Therapeutics Inc, Genentech, a member of the Roche Group, Genmab, Gilead Sciences Inc, GlaxoSmithKline, Grail Inc, Halozyme Inc, Helsinn Healthcare SA, ImmunoGen Inc, Incyte Corporation, Ipsen Biopharmaceuticals Inc, Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC, Jazz Pharmaceuticals Inc, Karyopharm Therapeutics, Kite, A Gilead Company, Lilly, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Merck, Novartis, Novocure Inc, Oncoceptides, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, Sanofi Genzyme, Seagen Inc, Servier Pharmaceuticals LLC, Sumitomo Dainippon Pharma Oncology Inc, Taiho Oncology Inc, Takeda Pharmaceuticals USA Inc, Tesaro, A GSK Company, TG Therapeutics Inc, Turning Point Therapeutics Inc and Verastem Inc.

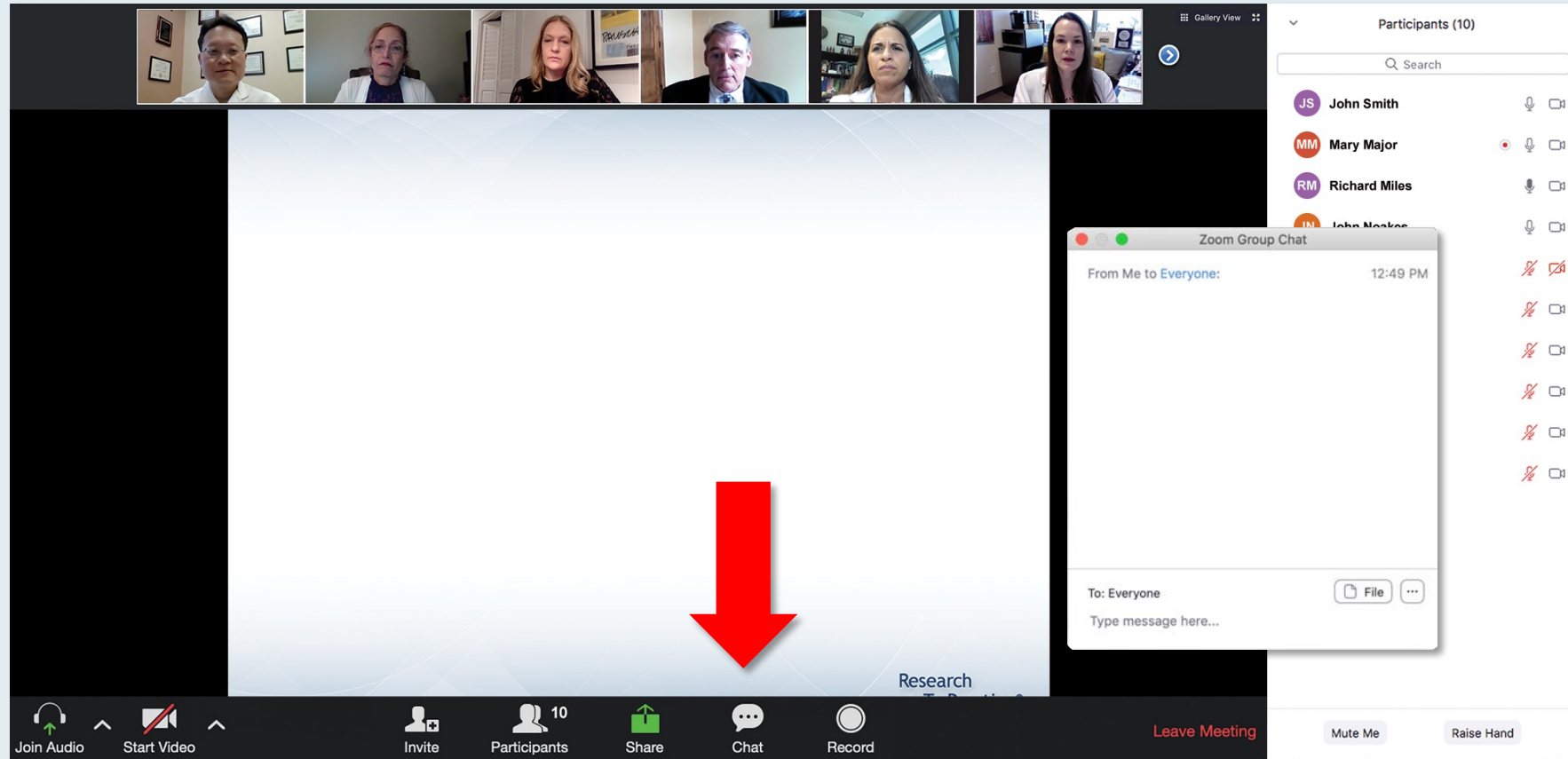
Research To Practice CME Planning Committee Members, Staff and Reviewers

Planners, scientific staff and independent reviewers for Research To Practice have no relevant conflicts of interest to disclose.

Dr O'Reilly — Disclosures

Consulting Agreements	Agius Pharmaceuticals Inc, Alnylam Pharmaceuticals Inc, AstraZeneca Pharmaceuticals LP, Autem Medical, Bayer HealthCare Pharmaceuticals, BeiGene Ltd, Berry Genomics, Celgene Corporation, Cend Therapeutics Inc, CytomX Therapeutics, Eisai Inc, Exelixis Inc, Flatiron Health, Genentech, a member of the Roche Group, Genoscience Pharma, Helio Health, Incyte Corporation, Ipsen Biopharmaceuticals Inc, Legend Biotech, Lilly, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Merck, MiNA Therapeutics, QED Therapeutics, Rafael Pharmaceuticals Inc, RedHill Biopharma Ltd, Silenseed Ltd, SillaJen, Sobi, Surface Oncology, TheraBionic, twoXAR Inc, Vector Pharma, Yiviva
Contracted Research	Agius Pharmaceuticals Inc, Arcus Biosciences, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, BioNTech, Bristol-Myers Squibb Company, Celgene Corporation, Flatiron Health, Genentech, a member of the Roche Group, Genoscience Pharma, Incyte Corporation, Polaris Pharmaceuticals, Puma Biotechnology Inc, QED Therapeutics, SillaJen, Yiviva

We Encourage Clinicians in Practice to Submit Questions



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

Familiarizing Yourself with the Zoom Interface

Expand chat submission box

The screenshot shows a Zoom meeting interface. At the top, there are video thumbnails for participants: RTP Coordinat..., Kirsten Miller, RTP Mike Rivera, and Lisa Suarez. Below the thumbnails is a slide titled "Meet The Professor Program Steering Committee" with six members listed:

- John N Allan, MD**
Assistant Professor of Medicine
Weill Cornell Medicine
New York, New York
- Ian W Flinn, MD, PhD**
Director of Lymphoma Research Program
Sarah Cannon Research Institute
Tennessee Oncology
Nashville, Tennessee
- Steven Coutre, MD**
Professor of Medicine (Hematology)
Stanford University School of Medicine
Stanford, California
- Prof John G Gribben, MD, DSc, FMedSci**
Chair of Medical Oncology
Barts Cancer Institute
Queen Mary University of London
Charterhouse Square
London, United Kingdom
- Matthew S Davids, MD, MMSc**
Associate Professor of Medicine
Harvard Medical School
Director of Clinical Research
Division of Lymphoma
Dana-Farber Cancer Institute
Boston, Massachusetts
- Brian T Hill, MD, PhD**
Director, Lymphoid Malignancy Program
Cleveland Clinic Taussig Cancer Institute
Cleveland, Ohio

The chat window on the right is expanded. It shows two messages from "Me to Panelists" and "Me to Panelists and Attendees" at 4:31 PM and 4:32 PM respectively. The messages contain a welcome message and a link to a PDF file: http://images.researchtopractice.com/2021/Meetings/Slides/2021/Meetings/Slides/MTP_ToGo_CLL_2021_April1.pdf. The chat submission box at the bottom is expanded, showing a red arrow pointing to the white line above the "Type message here..." input field.

Drag the white line above the submission box up to create more space for your message.

Familiarizing Yourself with the Zoom Interface

Increase chat font size



The screenshot displays a Zoom meeting interface. At the top, there are video thumbnails for participants: RTP Coordinator, Kirsten Miller, RTP Mike Rivera, and Lisa Suarez. Below the thumbnails is a slide titled "Research To Practice CME Planning Committee Members, Staff and Reviewers". The slide content reads: "Planners, scientific staff and independent reviewers for Research To Practice have no relevant conflicts of interest to disclose." A "Recording..." indicator is visible in the top left corner of the slide area. On the right side, the chat window is open, showing a message from "Me to Panelists" at 4:32 PM. The message text is: "Welcome and thank you for attending! To access the slides from today's session please use the link below. http://images.researchtopractice.com/2021/Meetings/Slides/MTP_ToGo_CLL_2021_April 1.pdf". A red arrow points to the chat window, and a small grey box with "150%" is overlaid on the chat message, indicating the font size has been increased. The chat input field at the bottom shows "To: Panelists and Attendees" and "Type message here..."

**Press Command (for Mac) or Control (for PC) and the + symbol.
You may do this as many times as you need for readability.**

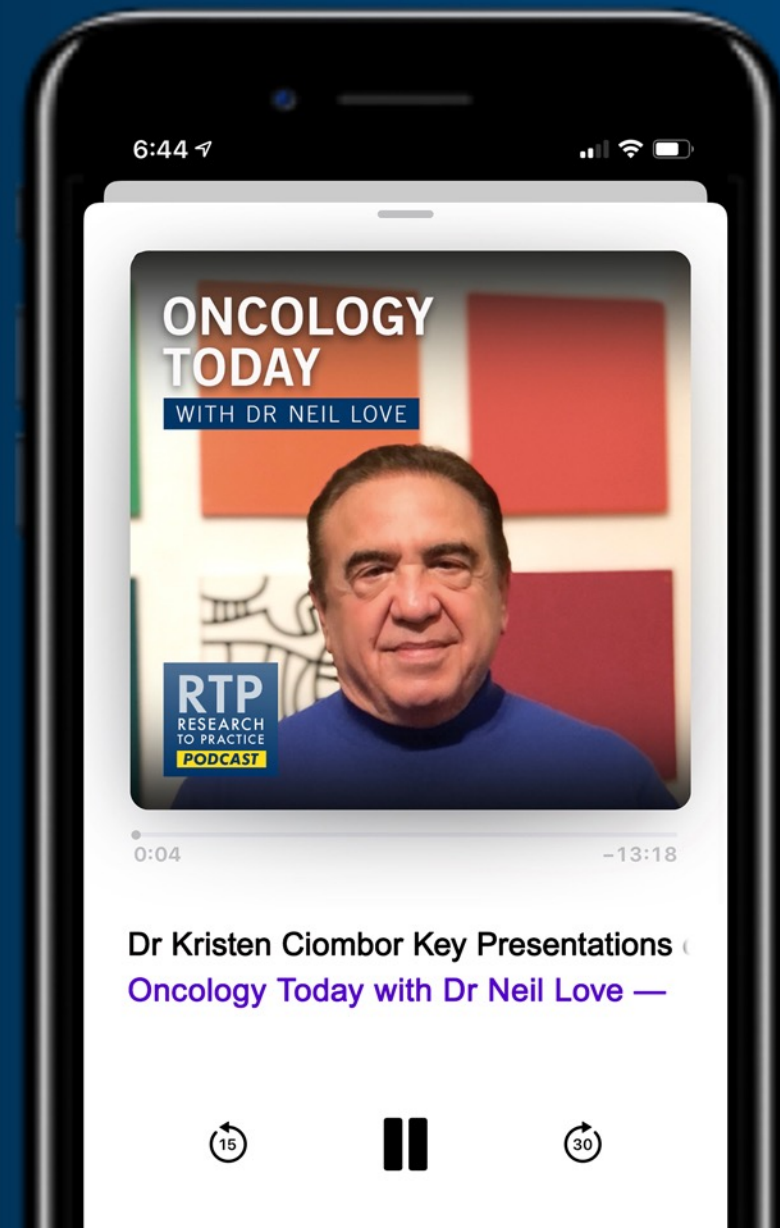
ONCOLOGY TODAY

WITH DR NEIL LOVE

Key Presentations on Gastrointestinal Cancers from the 2021 ASCO Annual Meeting



DR KRISTEN CIOMBOR
VANDERBILT-INGRAM CANCER CENTER



Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Renal Cell Carcinoma

Monday, October 11, 2021

5:00 PM – 6:00 PM ET

Faculty

Elizabeth R Plimack, MD, MS

Moderator

Neil Love, MD

Meet The Professor
**Immunotherapy and Novel Agents
in Gynecologic Cancers**

**Tuesday, October 12, 2021
5:00 PM – 6:00 PM ET**

Faculty

Shannon N Westin, MD, MPH

Moderator

Neil Love, MD

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with HER2-Positive Breast Cancer

Wednesday, October 13, 2021
5:00 PM – 6:00 PM ET

Faculty

Erika Hamilton, MD

Moderator

Neil Love, MD

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Triple-Negative Breast Cancer

Wednesday, October 20, 2021
5:00 PM – 6:00 PM ET

Faculty

Aditya Bardia, MD, MPH

Moderator

Neil Love, MD

Recent Advances and Future Directions in Oncology: A Daylong Multitumor Educational Webinar in Partnership with Florida Cancer Specialists

A CME-MOC/NCPD Accredited Virtual Event

Saturday, October 23, 2021

9:30 AM – 4:30 PM ET

Faculty

Neeraj Agarwal, MD
Tanios Bekaii-Saab, MD
Kristen K Ciombor, MD, MSCI
Brad S Kahl, MD
Mark Levis, MD, PhD
Mark D Pegram, MD
Daniel P Petrylak, MD

Noopur Raje, MD
David Sallman, MD
Lecia V Sequist, MD, MPH
David R Spigel, MD
Saad Zafar Usmani, MD, MBA
Andrew D Zelenetz, MD, PhD
Additional faculty to be announced.

Moderator

Neil Love, MD

Thank you for joining us!

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

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Advanced Gastrointestinal Cancers

Eileen M O'Reilly, MD

Winthrop Rockefeller Endowed Chair in Medical Oncology
Section Head, Hepatopancreaticobiliary and Neuroendocrine Cancers
Co-Director, Medical Initiatives
David M Rubenstein Center for Pancreatic Cancer Research
Attending Physician, Member
Memorial Sloan Kettering Cancer Center
Professor of Medicine
Weill Cornell Medical College
New York, New York

Meet The Professor Program Participating Faculty



Dirk Arnold, MD, PhD
Director
Asklepios Tumorzentrum Hamburg
Asklepios Klinik Altona
Hamburg, Germany



Johanna Bendell, MD
Chief Development Officer
Director, Drug Development Unit Nashville
Sarah Cannon Research Institute
Tennessee Oncology
Nashville, Tennessee



Tanios Bekaii-Saab, MD
Professor, Mayo Clinic College of Medicine and Science
Program Leader, Gastrointestinal Cancer
Mayo Clinic Cancer Center
Consultant, Mayo Clinic in Arizona
Phoenix, Arizona



Daniel Catenacci, MD
Associate Professor, Department of Medicine
Section of Hematology and Oncology
Director, Interdisciplinary Gastrointestinal
Oncology Program
Assistant Director, Translational Research
Comprehensive Cancer Center
The University of Chicago Medical Center
and Biological Sciences
Chicago, Illinois

Meet The Professor Program Participating Faculty



Kristen K Ciombor, MD, MSCI
Assistant Professor of Medicine
Division of Hematology/Oncology
Vanderbilt-Ingram Cancer Center
Nashville, Tennessee



Eileen M O'Reilly, MD
Winthrop Rockefeller Endowed Chair in Medical Oncology
Section Head, Hepatopancreaticobiliary and
Neuroendocrine Cancers
Co-Director, Medical Initiatives
David M Rubenstein Center for Pancreatic Cancer Research
Attending Physician, Member
Memorial Sloan Kettering Cancer Center
Professor of Medicine
Weill Cornell Medical College
New York, New York



Wells A Messersmith, MD
Professor and Head, Division of
Medical Oncology
Associate Director for Translational Research
University of Colorado Cancer Center
Aurora, Colorado



Philip A Philip, MD, PhD, FRCP
Kathryn Cramer Endowed Chair in Cancer Research
Professor of Oncology and Pharmacology
Leader, GI and Neuroendocrine Oncology
Vice President of Medical Affairs
Karmanos Cancer Institute
Wayne State University
Detroit, Michigan

Meet The Professor Program Participating Faculty



Alan P Venook, MD

The Madden Family Distinguished Professor of
Medical Oncology and Translational Research
Shorenstein Associate Director
Program Development
Helen Diller Family Comprehensive Cancer Center
University of California, San Francisco
San Francisco, California



Moderator

Neil Love, MD

Research To Practice
Miami, Florida



Zev Wainberg, MD, MSc

Co-Director, GI Oncology Program
Director of Early Phase Clinical Research
Jonsson Comprehensive Cancer Center
UCLA School of Medicine
Los Angeles, California

We Encourage Clinicians in Practice to Submit Questions

The image shows a Zoom meeting interface. At the top, there is a gallery view of six participants. The main area displays a presentation slide with the text: "You may submit questions using the Zoom Chat option below". A large red arrow points downwards from the text. On the right side, there is a "Participants (10)" list with names and icons for audio and video. Below the list is a "Zoom Group Chat" window showing a message from "Me to Everyone" at 12:49 PM. The bottom toolbar includes icons for "Join Audio", "Start Video", "Invite", "Participants", "Share", "Chat", "Record", "Leave Meeting", "Mute Me", and "Raise Hand".

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

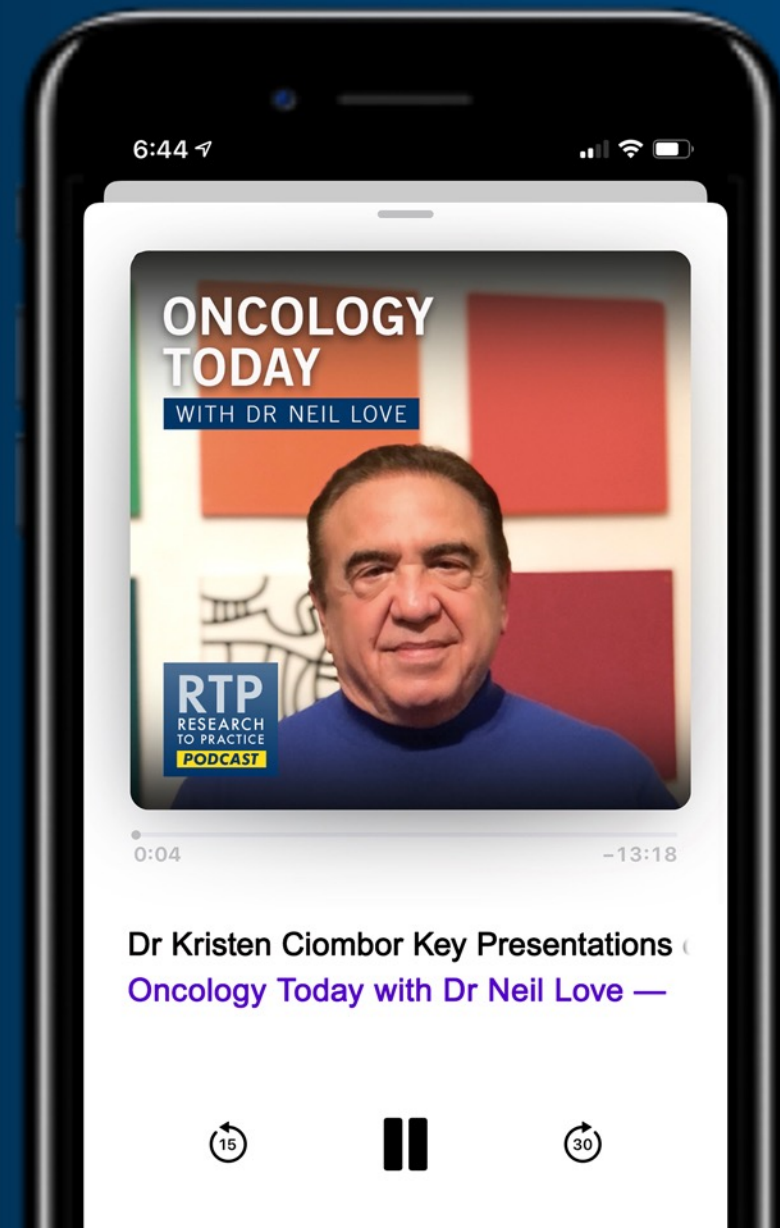
ONCOLOGY TODAY

WITH DR NEIL LOVE

Key Presentations on Gastrointestinal Cancers from the 2021 ASCO Annual Meeting



DR KRISTEN CIOMBOR
VANDERBILT-INGRAM CANCER CENTER



Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Renal Cell Carcinoma

Monday, October 11, 2021

5:00 PM – 6:00 PM ET

Faculty

Elizabeth R Plimack, MD, MS

Moderator

Neil Love, MD

Meet The Professor
**Immunotherapy and Novel Agents
in Gynecologic Cancers**

**Tuesday, October 12, 2021
5:00 PM – 6:00 PM ET**

Faculty

Shannon N Westin, MD, MPH

Moderator

Neil Love, MD

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with HER2-Positive Breast Cancer

Wednesday, October 13, 2021
5:00 PM – 6:00 PM ET

Faculty

Erika Hamilton, MD

Moderator

Neil Love, MD

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Triple-Negative Breast Cancer

Wednesday, October 20, 2021
5:00 PM – 6:00 PM ET

Faculty

Aditya Bardia, MD, MPH

Moderator

Neil Love, MD

Recent Advances and Future Directions in Oncology: A Daylong Multitumor Educational Webinar in Partnership with Florida Cancer Specialists

A CME-MOC/NCPD Accredited Virtual Event

Saturday, October 23, 2021

9:30 AM – 4:30 PM ET

Faculty

Neeraj Agarwal, MD
Tanios Bekaii-Saab, MD
Kristen K Ciombor, MD, MSCI
Brad S Kahl, MD
Mark Levis, MD, PhD
Mark D Pegram, MD
Daniel P Petrylak, MD

Noopur Raje, MD
David Sallman, MD
Lecia V Sequist, MD, MPH
David R Spigel, MD
Saad Zafar Usmani, MD, MBA
Andrew D Zelenetz, MD, PhD
Additional faculty to be announced.

Moderator

Neil Love, MD

Recent Advances and Future Directions in Oncology: A Daylong Multitumor Educational Webinar in Partnership with Florida Cancer Specialists

Module 1: Breast Cancer – 9:30 AM – 10:20 AM

Module 2: Lung Cancer – 10:30 AM – 11:20 AM

Module 3: Gastrointestinal Cancers – 11:30 AM – 12:20 PM

Module 4: Genitourinary Cancers – 12:30 PM – 1:20 PM

Module 5: CLL and Lymphomas – 1:30 PM – 2:20 PM

Module 6: Multiple Myeloma – 2:30 PM – 3:20 PM

Module 7: AML and MDS – 3:30 PM – 4:20 PM

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Advanced Gastrointestinal Cancers

Eileen M O'Reilly, MD

Winthrop Rockefeller Endowed Chair in Medical Oncology
Section Head, Hepatopancreaticobiliary and Neuroendocrine Cancers
Co-Director, Medical Initiatives
David M Rubenstein Center for Pancreatic Cancer Research
Attending Physician, Member
Memorial Sloan Kettering Cancer Center
Professor of Medicine
Weill Cornell Medical College
New York, New York



Kristen K Ciombor, MD, MSCI
Assistant Professor of Medicine
Division of Hematology/Oncology
Vanderbilt-Ingram Cancer Center
Nashville, Tennessee



Nikesh Jasani, MD
Texas Oncology-Cypress
Houston, Texas



Farshid Dayyani, MD, PhD
Professor of Clinical Medicine
Division of Hematology/Oncology
Department of Medicine
University of California, Irvine
UCI Health
Orange, California



Liudmila N Schafer, MD
Associate Professor of Medicine
Director of Gastrointestinal
Oncology Program
Saint Luke's Cancer Institute
University of Missouri-Kansas
City School of Medicine
Kansas City, Missouri



Sulfi Ibrahim, MD
Hematology/Oncology
Reid Health
Richmond, Indiana

Meet The Professor with Dr O'Reilly

MODULE 1: Journal Club with Dr O'Reilly — Pancreatic Cancer

MODULE 2: Case Presentations

- Dr Dayyani: A 54-year-old man with MSI-high metastatic colorectal cancer
- Dr Schafer: A 60-year-old woman with MSS metastatic sigmoid adenocarcinoma and a somatic BRCA2 mutation
- Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70
- Dr Ibrahim: A 60-year-old man with infiltrative hepatocellular carcinoma
- Dr Dayyani: A 62-year-old woman with metastatic cholangiocarcinoma – FGFR2 rearrangement, MSS, TMB low

MODULE 3: Beyond the Guidelines

MODULE 4: Key Data Sets

Meet The Professor with Dr O'Reilly

MODULE 1: Journal Club with Dr O'Reilly — Pancreatic Cancer

MODULE 2: Case Presentations

- Dr Dayyani: A 54-year-old man with MSI-high metastatic colorectal cancer
- Dr Schafer: A 60-year-old woman with MSS metastatic sigmoid adenocarcinoma and a somatic BRCA2 mutation
- Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70
- Dr Ibrahim: A 60-year-old man with infiltrative hepatocellular carcinoma
- Dr Dayyani: A 62-year-old woman with metastatic cholangiocarcinoma – FGFR2 rearrangement, MSS, TMB low

MODULE 3: Beyond the Guidelines

MODULE 4: Key Data Sets

Clinical Review & Education

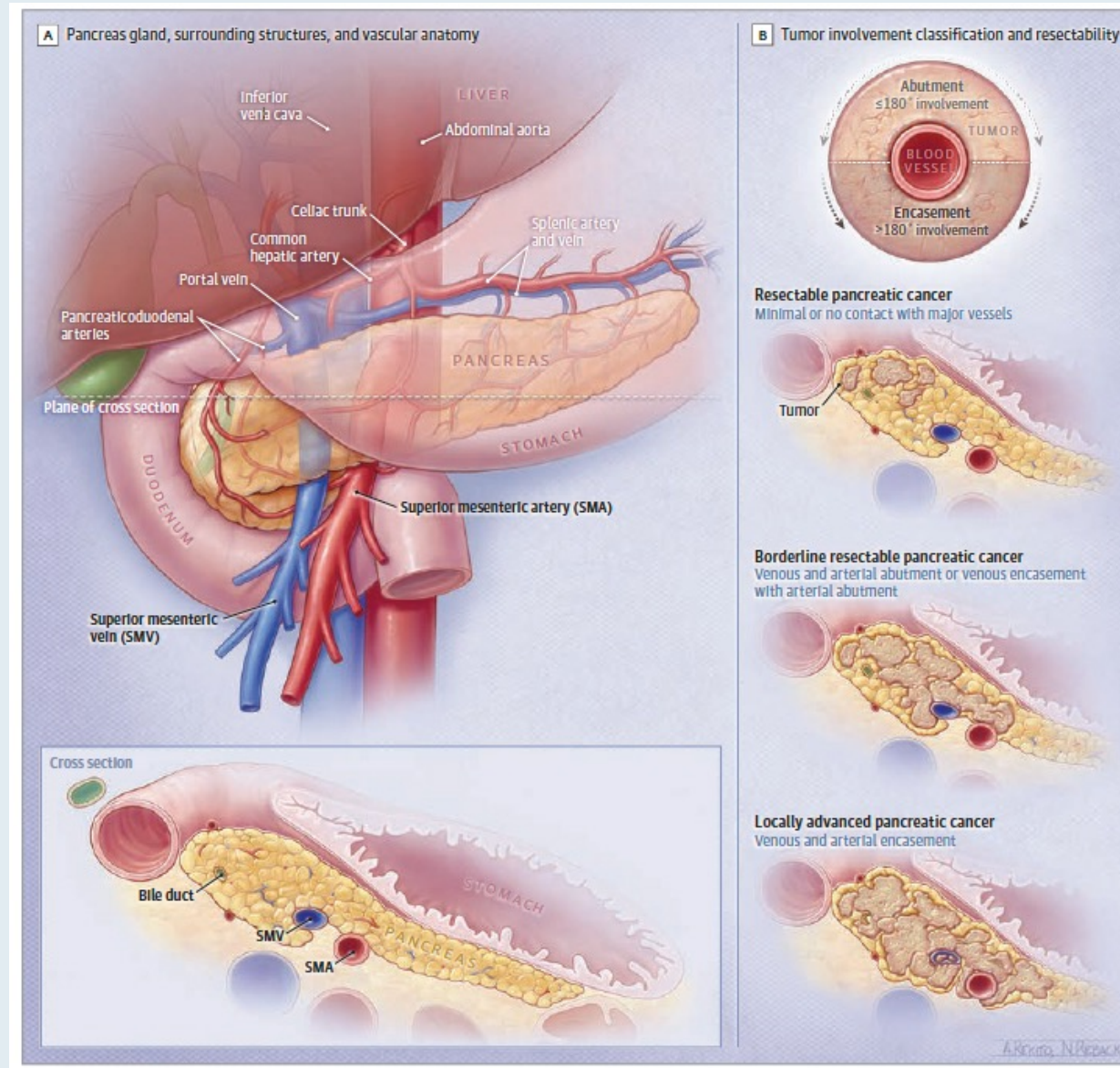
JAMA | Review

Pancreatic Cancer A Review

Wungki Park, MD; Akhil Chawla, MD; Eileen M. O'Reilly, MD

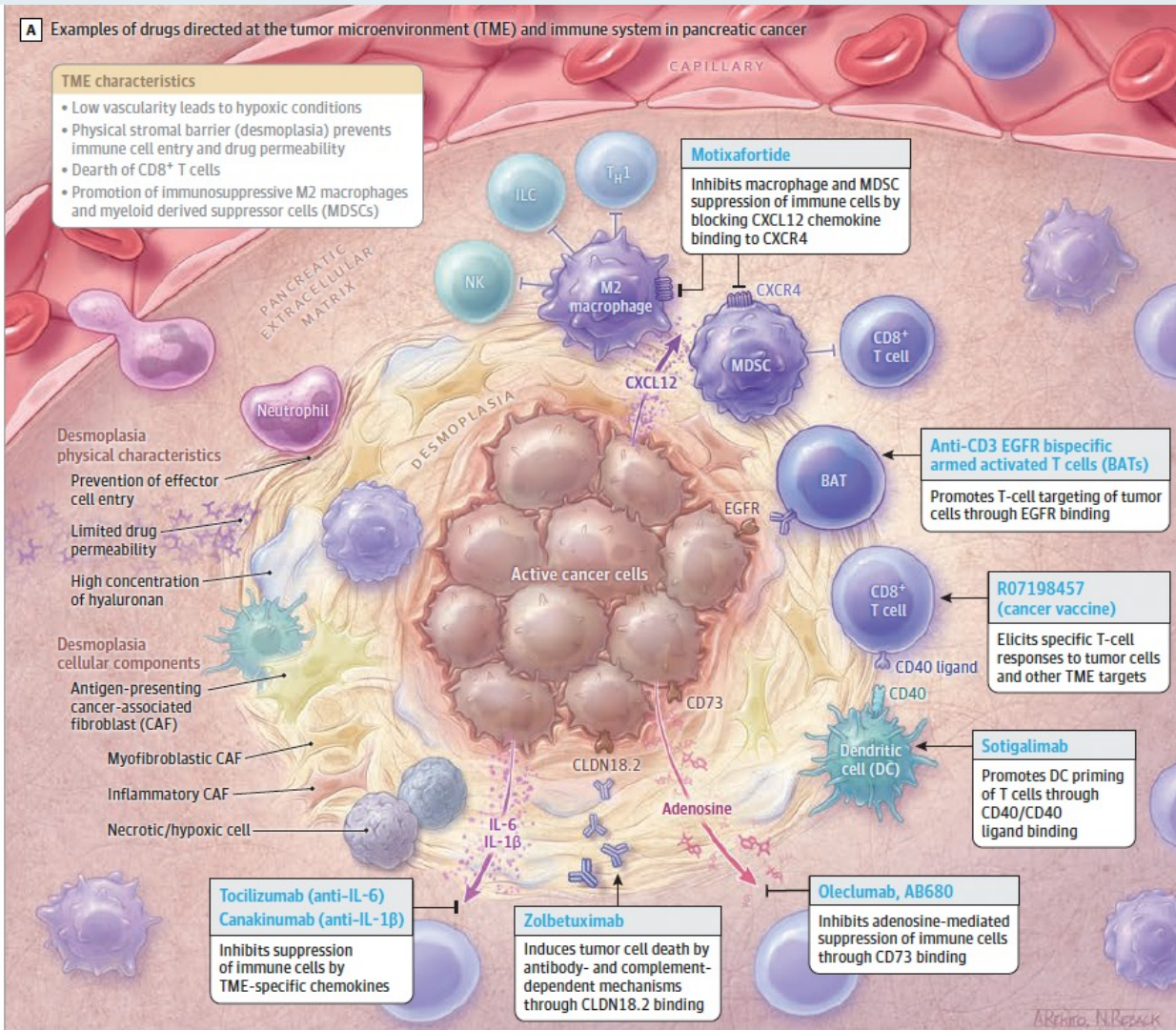
JAMA 2021;326(9):851-62.

Spectrum of Localized Pancreatic Cancer



Novel Targets and Agents in Development for Pancreatic Cancer

A Examples of drugs directed at the tumor microenvironment (TME) and immune system in pancreatic cancer



B Select drugs in development for pancreatic cancer

TME directed		Tumor cell directed	
Class, mechanism, or target	Agent	Class, mechanism, or target	Agent
STROMA DIRECTED	CSF-1 receptor on MDSCs	Pexidartinib	Poly (ADB-ribose) polymerase inhibition
	Connective tissue growth factor	Pamrevlumab	Olaparib, ^a rucaparib
	Vitamin D receptor	Paricalcitol	Checkpoint inhibition (PD-1, CTLA4)
	FAK inhibition	Defactinib	Pembrolizumab, ipilimumab
IMMUNE DIRECTED	Checkpoint inhibition (PD-1, CTLA4)	Pembrolizumab, ipilimumab	WEE1 inhibition
	Mismatch repair deficiency-related variants and neoantigens	Pembrolizumab, ^a nivolumab	Hydroxychloroquine
	Mesothelin, CEA	Chimeric antigen receptor T cells	siG12D LoDER (G12D, G12V)
	Various (eg, prostate stem cell antigen)	Allogenic natural killer (NK) cells, NK T cells	Sotorasib, adagrasib (G12C)
OTHER			Vaccines
			CA 19-9
			Tumor cell mitochondria
			Asparagine, glutamine metabolism
		NTRK fusion (KRAS wild type)	
		NTRK fusion (KRAS wild type)	

ADB indicates adenosine diphosphate; CA, carbohydrate antigen; CEA, carcinoembryonic antigen; CSF, colony-stimulating factor; DDR, DNA damage repair; EGFR, epidermal growth factor receptor; ILC, innate lymphoid cell; and T_H1, type 1 helper T cell.

^a Approved by the US Food and Drug Administration or guideline-endorsed for pancreatic cancer.

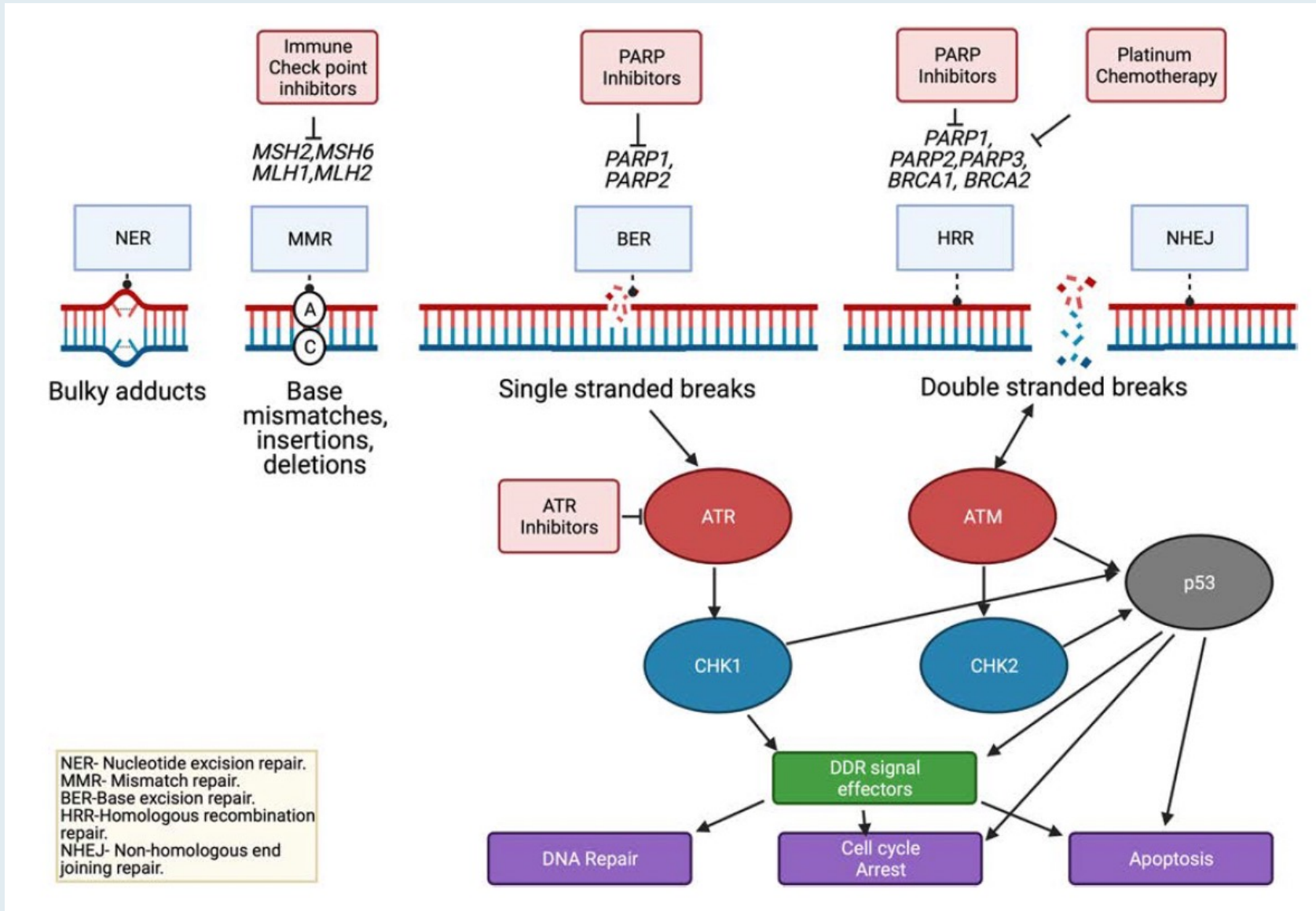
Cancer and Metastasis Reviews 2021;[Online ahead of print].
<https://doi.org/10.1007/s10555-021-09983-1>

Targeting DNA damage repair pathways in pancreas cancer

Fionnuala Crowley^{1,2,3}  · Wungki Park^{1,4,5,6}  · Eileen M. O'Reilly^{1,4,6} 

Received: 8 May 2021 / Accepted: 30 July 2021

Targeting DDR Pathways in Pancreas Cancer



Gastrointestinal Cancers Symposium 2021

Abstract 639



Memorial Sloan Kettering
Cancer Center

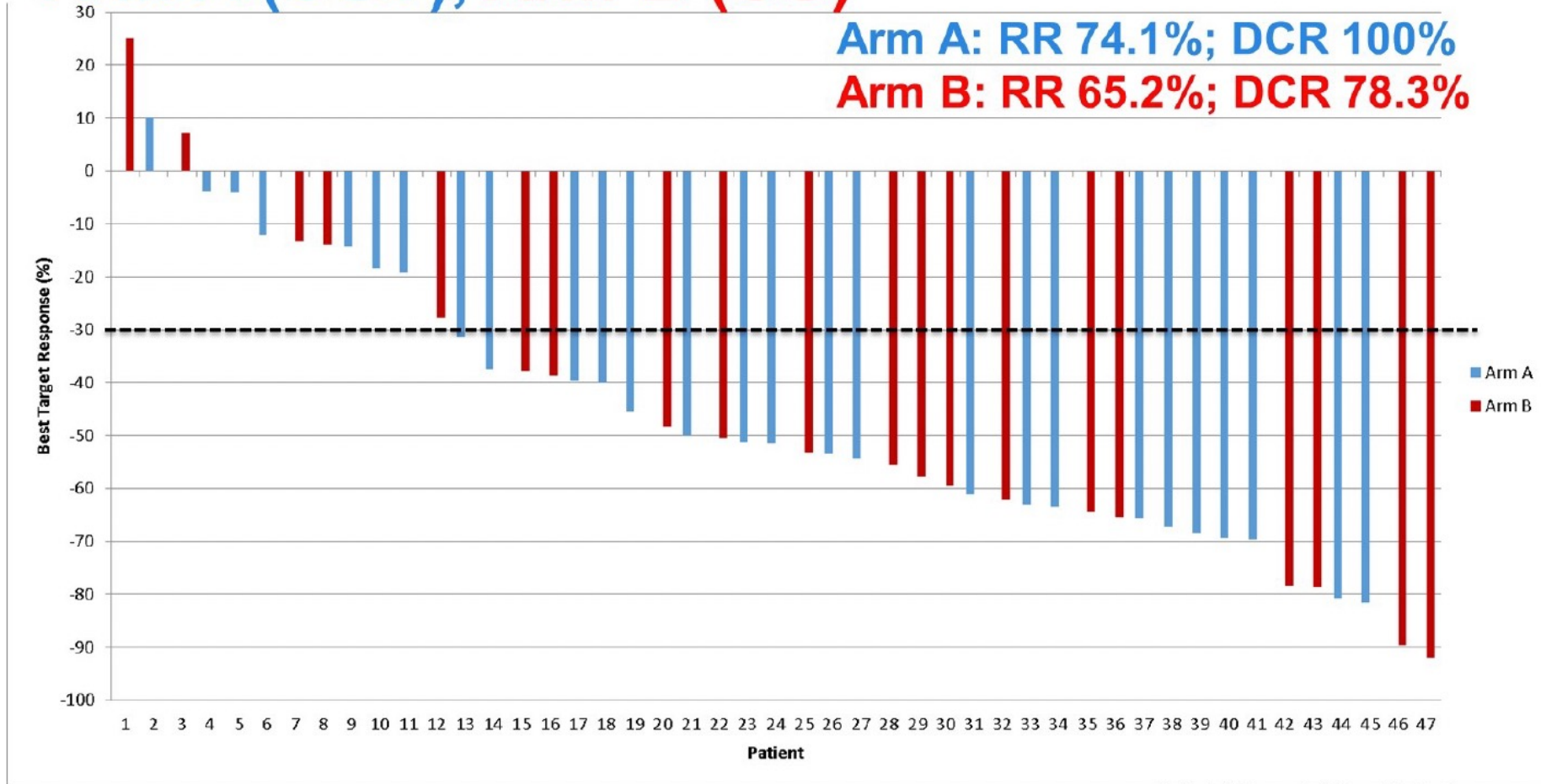
Randomized, Multicenter, Phase II Trial of Gemcitabine, Cisplatin +/- Veliparib in Patients with Pancreas Adenocarcinoma and a known Germline *BRCA/PALB2* Mutation

Eileen M. O'Reilly, MD¹; Jonathan W. Lee, MSc¹; Mark Zalupski, MD²; Marinela Capanu¹; Jennifer Park, BS¹; Talia Golan, MD³; Esther Tahover, MD⁴; Maeve A. Lowery, MD⁵; Joanne F. Chou, MPH¹; Vaibhav Sahai, MBBS, MS²; Robin Brenner, RN, BSN¹; Hedy L. Kindler, MD⁶; Kenneth H. Yu, MD¹; Alice Zervoudakis, MD¹; Shreya Vemuri, BS¹; Zsofia K. Stadler, MD¹; Richard K. G. Do, MD, PhD¹; Neesha Dhani, MD, PhD⁷; Alice P. Chen, MD⁸; and David P. Kelsen, MD¹

¹Memorial Sloan Kettering Cancer Center, New York, NY. ²University of Michigan, Ann Arbor, MI. ³Chaim Sheba Medical Center at Tel HaShomer, Tel HaShomer, Israel. ⁴The Oncology Institute, Sha'are Zedek Medical Center, Jerusalem, Israel. ⁵Trinity College, Dublin, Ireland. ⁶University of Chicago, Chicago, IL. ⁷Princess Margaret Cancer Centre-University Health Network, Toronto, Ontario, Canada. ⁸National Cancer Institute, Bethesda, MD

Primary Endpoint: RECIST Response

Arm A (CGV), Arm B (CG)



RR: Response Rate; DCR: Disease Control Rate



Phase II, Open-Label, Randomized Study of First-Line Zolbetuximab plus Gemcitabine and *Nab*-Paclitaxel (GN) in Claudin 18.2-Positive Metastatic Pancreatic Cancer (mPC)

Park W et al.

ASCO 2020;Abstract TPS4667.

Efficacy and safety of zenocutuzumab in advanced pancreatic cancer and other solid tumors harboring NRG1 fusions

Alison M Schram

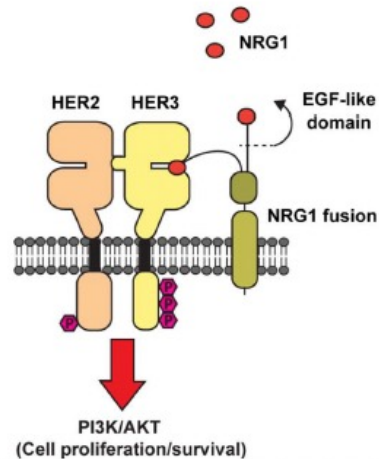
Memorial Sloan Kettering Cancer Center, NY, USA

04 June 2021

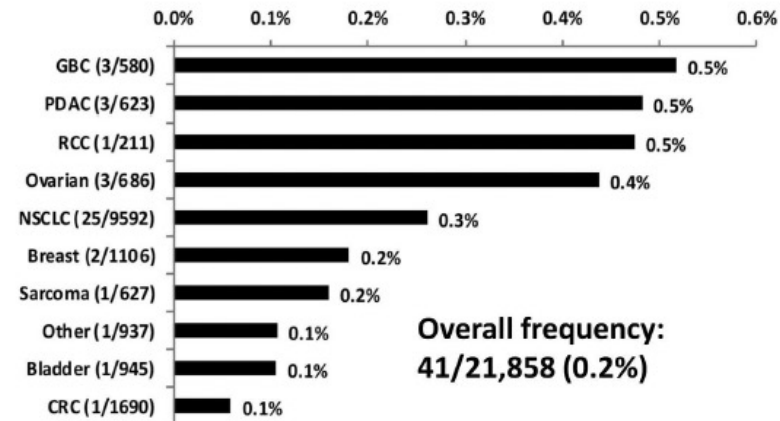
AM Schram, EM O'Reilly, GM O'Kane, K Goto, DW Kim, C Neuzillet, P Martin-Romano, M Duruisseaux, M Nagasaka, J Rodon, BA Weinberg, K Umemoto, SH I Ou, T Macarulla, C de la Fouchardiere, AK Joe, E Wasserman, V Stalbovskaya, J Ford, AE Drlon

NRG1 Fusions are Clinically Actionable Targets

- Neuregulin 1 (NRG1) is a ligand that binds to HER3, promoting HER2/HER3 heterodimerization and activation of PI3K/AKT/mTOR signaling
- Chromosomal rearrangements involving NRG1 are rare oncogenic drivers in solid tumors, enriched in *KRAS*wt PDAC and lung IMA
- Numerous NRG1 fusion partners identified (e.g., CD74, ATP1B1, SDC4)
- NRG1 fusion positive (NRG1+) *in vitro* and *in vivo* models are sensitive to HER2/HER3 directed therapy



Fernandez-Cuesta et al. Cancer Discov. 2014;4:415-22
Schram et al. J Clin Oncol. 2019;37:3129
Jonna et al. J Clin Oncol. 2020;38:3113
Jonna et al. Clin Cancer Res. 2019;25:4966-7



Presented By: Alison Schram

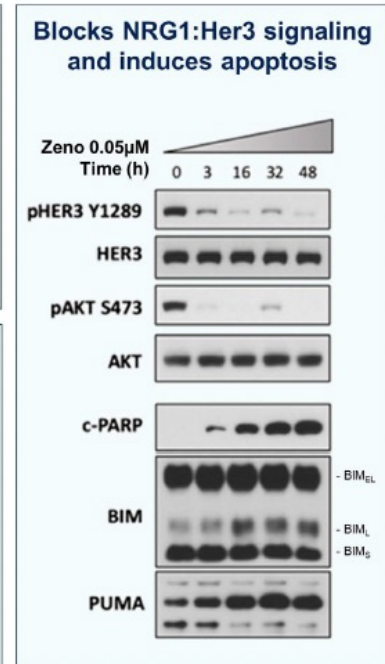
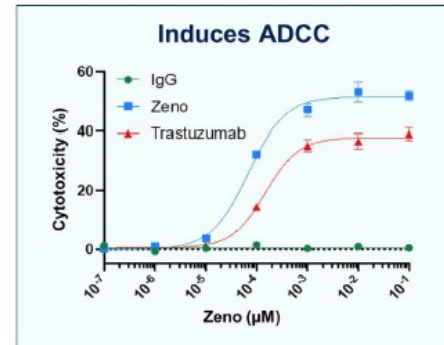
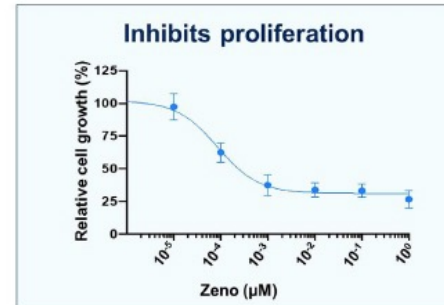
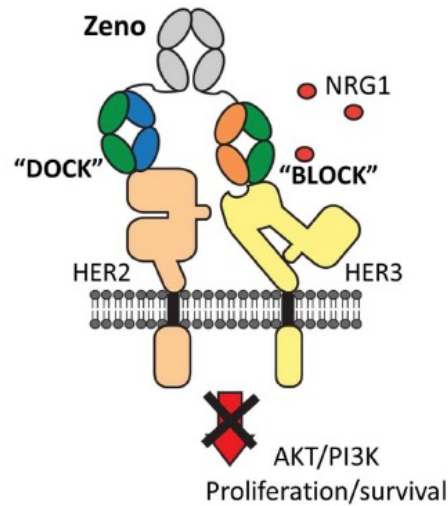
2021 ASCO[®]
ANNUAL MEETING

JC
JOURNAL CLUB

RTP
RESEARCH
TO PRACTICE

Zenocutuzumab: A Novel Therapeutic Paradigm for NRG1+ Cancers

- Common light chain bispecific Biclomics® antibody with enhanced ADCC activity
- Docks on HER2 and blocks NRG1 interaction with HER3
- Potent inhibition of cell growth and molecular signaling (pHER3, PI3K) at 0.01 μM
- Orphan drug and fast-track designations were granted



MDA-MB-175-VII (*DOC4-NRG1* fusion)

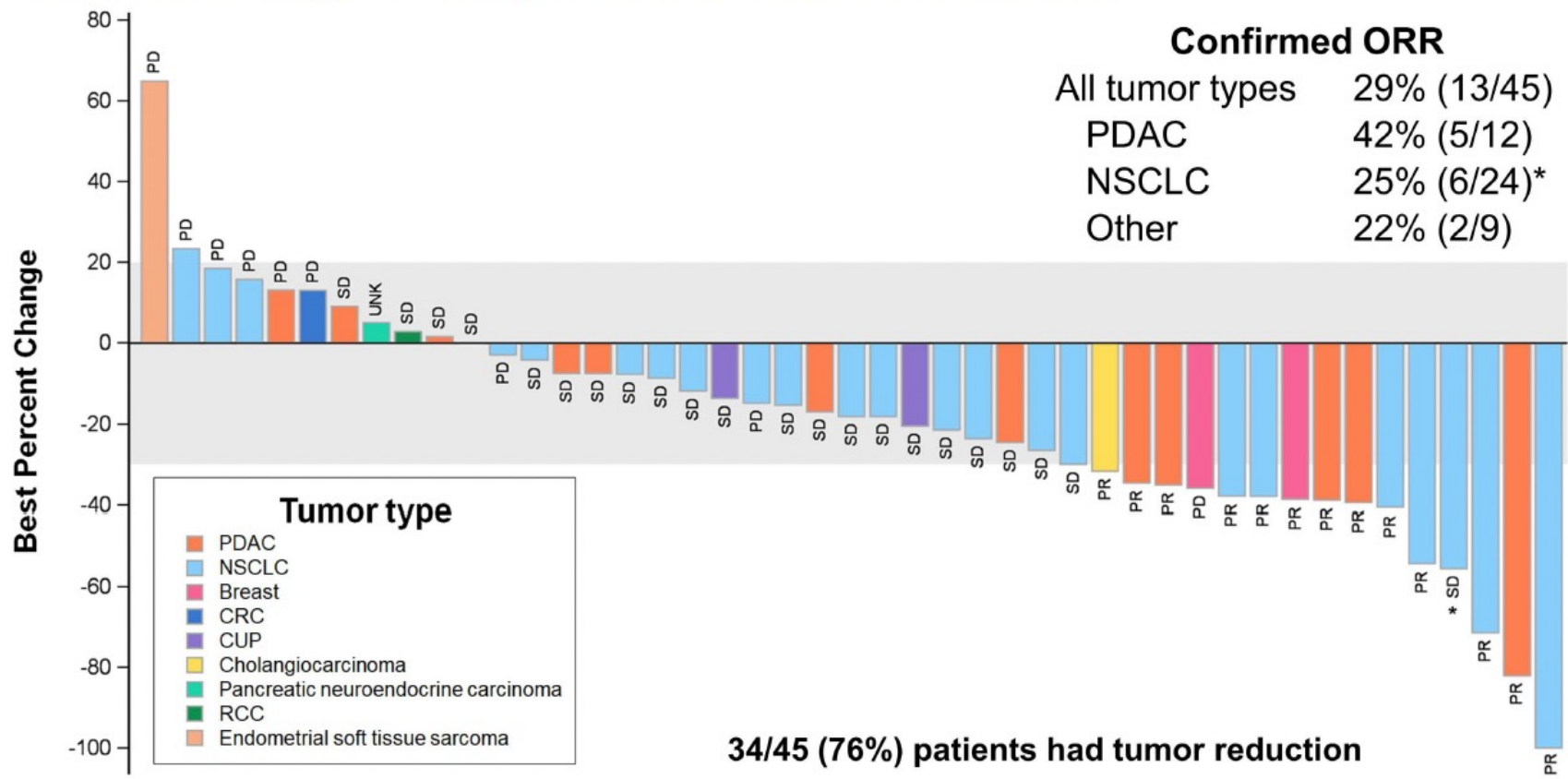
Geuijen et al. Cancer Cell. 2018;33:922-36
Odintsov et al. AACR. 2021; abstract 956

Presented By: Alison Schram

2021 ASCO®
ANNUAL MEETING

Efficacy Regardless of NRG1+ Tumor Type

Best Percent change in Target Lesions from Baseline



* One additional PR confirmed after the cutoff date; NSCLC ORR 29% (7/24)

Presented By: Alison Schram

2021 ASCO[®]
ANNUAL MEETING



Meet The Professor with Dr O'Reilly

MODULE 1: Journal Club with Dr O'Reilly — Pancreatic Cancer

MODULE 2: Case Presentations

- Dr Dayyani: A 54-year-old man with MSI-high metastatic colorectal cancer
- Dr Schafer: A 60-year-old woman with MSS metastatic sigmoid adenocarcinoma and a somatic BRCA2 mutation
- Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70
- Dr Ibrahim: A 60-year-old man with infiltrative hepatocellular carcinoma
- Dr Dayyani: A 62-year-old woman with metastatic cholangiocarcinoma – FGFR2 rearrangement, MSS, TMB low

MODULE 3: Beyond the Guidelines

MODULE 4: Key Data Sets

Case Presentation – Dr Dayyani: A 54-year-old man with microsatellite instability (MSI)-high metastatic colorectal cancer



Dr Farshid Dayyani

- Colonoscopy: Obstructing right colon cancer
- 11/2019 CT CAP: Large colonic hepatic flexure mass, mesenteric LAD and left hepatic lesions
- ctDNA testing: MSI high

Question

- If you're thinking about sequencing systemic therapy, hopefully followed by resection of the primary tumor and liver metastases, would you choose induction with a checkpoint inhibitor alone based on KEYNOTE-177?

Case Presentation – Dr Dayyani: A 54-year-old man with MSI-high metastatic colorectal cancer (continued)



Dr Farshid Dayyani

- Colonoscopy: Obstructing right colon cancer
- 11/2019 CT CAP: Large colonic hepatic flexure mass, mesenteric LAD and left hepatic lesions
- ctDNA testing: MSI high
- 2/2020: FOLFOX/pembrolizumab x 6 → 8/2020 laparoscopic partial colectomy, left hepatectomy, microwave of liver lesion → Pathology: ypT3N0 with liver-only necrosis

Question

- Would you administer adjuvant treatment? For how long? And with what agent?

Case Presentation – Dr Schafer: A 60-year-old woman with microsatellite stable (MSS) metastatic sigmoid adenocarcinoma and a somatic BRCA2 mutation



Dr Liudmila Schafer

- 9/2019: S/p left hemicolectomy for Stage IIIB sigmoid colon cancer
- Adjuvant FOLFOX x 3, with oxaliplatin discontinued due to toxicity; 5-FU discontinued after 10 cycles
- 9/2020: New left hydronephrosis, progression of liver lesions → Capecitabine/bevacizumab
- 11/2020: PD, with new liver lesions → Irinotecan/bevacizumab
 - Stable disease on last CT scan
- NGS: Somatic BRCA2 mutations, MSS, KRAS-mutated, BRAF wildtype, NRAS wildtype, HER2-negative, TRK-negative, TMB 6 mut/Mb

Questions

- What would you recommend on the next progression of her disease – regorafenib, TAS-102?
- Would you use bevacizumab, even though she has previous exposure to that treatment?
- Is there any role for PARP inhibitors?

Incorporation of immune checkpoint inhibitor therapy into the management of gastric, GEJ and esophageal cancers



Dr Nikesh Jasani

Case Presentation – Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70



Dr Kristen Ciombor

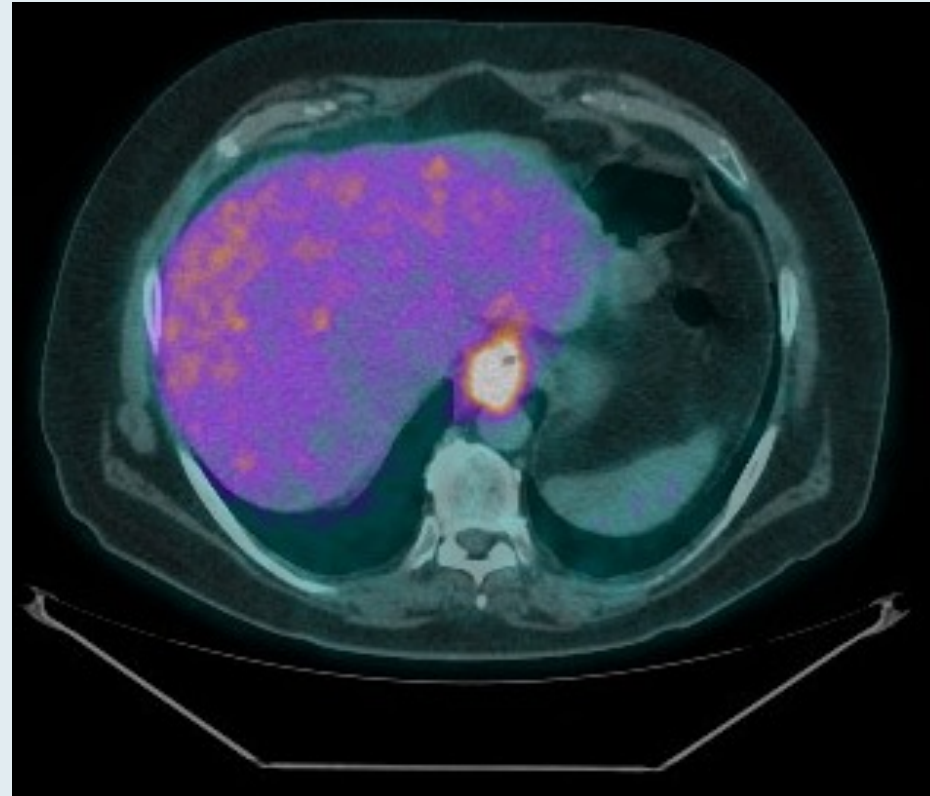
- PMH: HTN, HLD, DM
- Presented with dysphagia which he attributed to recent stress; esophagram showed distal esophageal stricture
- EGD: large friable mass with stenosis from 36 to 41 cm from incisors; biopsy: intramucosal carcinoma
- CT C/A/P: esophageal mass and mildly enlarged paraesophageal nodes, 8-mm omental nodule, 1.2-cm lesion in right liver
- Diagnostic laparoscopy: omental nodule positive for adenocarcinoma
- FOLFOX x 4 cycles → SD
- Palliative radiation for significant dysphagia
- Molecular testing: MSS, CDH1 E243K mut, KRAS G12D mut, TP53 mut, HER2-; PD-L1 CPS 70
- Switched to pembrolizumab x 1 year
- Reimaging showed CR; EGD w/ biopsy without residual tumor (reactive changes, eosinophils)
- Now in IO treatment holiday and still in CR

Case Presentation – Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70 (continued)



Dr Kristen Ciombor

CR after pembrolizumab therapy

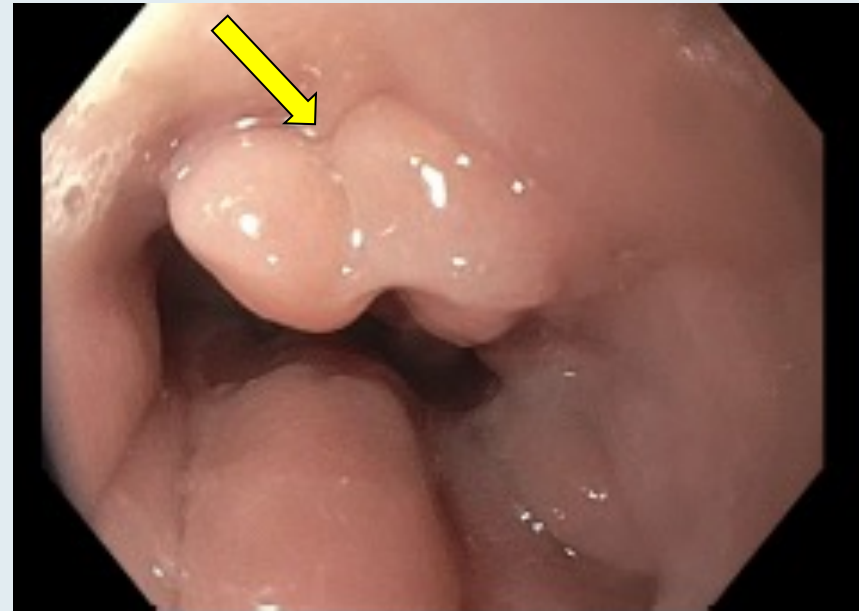
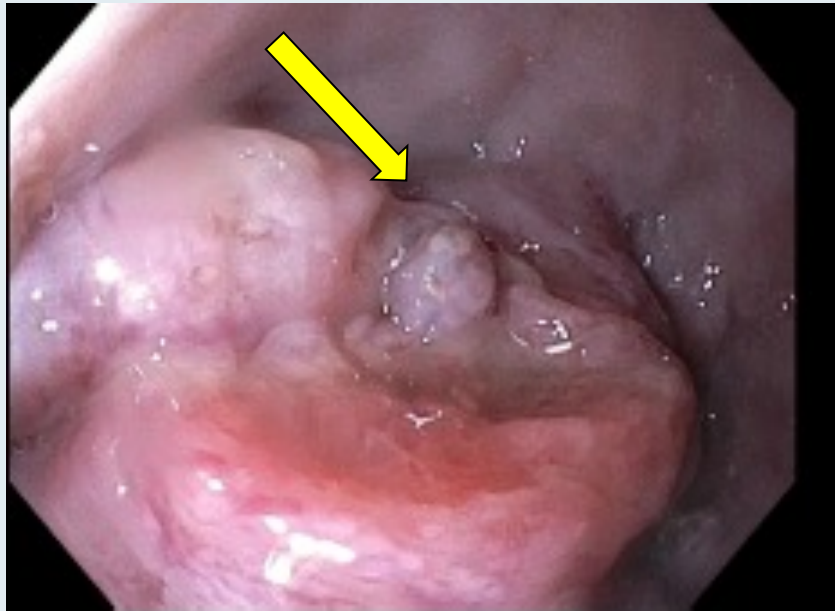


Case Presentation – Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70 (continued)



Dr Kristen Ciombor

EGD after pembrolizumab therapy



Case Presentation – Dr Ibrahim: A 60-year-old man with infiltrative hepatocellular carcinoma



Dr Sulfi Ibrahim

- Right upper quadrant pain → Workup: Multiple liver and lung metastases
- Liver biopsy c/w poorly differentiated carcinoma on radiographic imaging
- Diagnosed at tertiary care center with infiltrative type HCC
- Patient rapidly declining; bilirubin 1 to 10 in one week
- Atezolizumab/bevacizumab

Questions

- What is the optimal management of infiltrative type HCC?
- Would you use atezolizumab and bevacizumab in patients with Child-Pugh B or Child-Pugh C HCC?

Case Presentation – Dr Dayyani: A 62-year-old woman with metastatic cholangiocarcinoma — FGFR2 rearrangement, MSS, TMB low



Dr Farshid Dayyani

- 7/2017: Diagnosed with intrahepatic cholangiocarcinoma
- 12/2017: Completed adjuvant gemcitabine/cisplatin x 5 cycles
- 1/2018: Underwent right hepatic lobectomy → capecitabine (d/c due to colitis/mucositis)
 - Patient switched to gemcitabine/cisplatin; completed 7/2018
- 3/2019: CT identifies suspected liver and lung metastases
- NGS: FGFR2-AHCYL1 fusion | MSS | TMB low
- 6/2019: Patient enrolled on MATCH trial and began treatment with erdafitinib
 - Multiple dose interruptions and reductions due to hyperphosphatemia, serous retinopathy (reversible), mucositis and increasing PPE
- 7/2020: Continued partial response in single liver lesion, and only lung micronodules
- 9/2020: Patient opted to come off trial due to recurrent PPE, mucositis on lowest dose

Meet The Professor with Dr O'Reilly

MODULE 1: Journal Club with Dr O'Reilly — Pancreatic Cancer

MODULE 2: Case Presentations

- Dr Dayyani: A 54-year-old man with MSI-high metastatic colorectal cancer
- Dr Schafer: A 60-year-old woman with MSS metastatic sigmoid adenocarcinoma and a somatic BRCA2 mutation
- Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70
- Dr Ibrahim: A 60-year-old man with infiltrative hepatocellular carcinoma
- Dr Dayyani: A 62-year-old woman with metastatic cholangiocarcinoma – FGFR2 rearrangement, MSS, TMB low

MODULE 3: Beyond the Guidelines

MODULE 4: Key Data Sets

Colorectal Cancer

What is your usual first-line treatment recommendation for a clinically stable 60-year-old patient with left-sided, MSS, pan-RAS wild-type, BRAF wild-type metastatic colorectal cancer (mCRC)?

1. Chemotherapy
2. Chemotherapy + anti-VEGF antibody
3. Chemotherapy + anti-EGFR antibody
4. Chemotherapy + immunotherapy
5. Other

What is your usual first-line treatment recommendation for a clinically stable 60-year-old patient with left-sided, MSS, pan-RAS wild-type, BRAF wild-type metastatic colorectal cancer (mCRC)?



Prof Arnold

FOLFOX + cetuximab



Dr Ciombor

**FOLFOX/CAPOX +
bevacizumab**



Dr Bekaii-Saab

**FOLFOXIRI +
bevacizumab**



Dr O'Reilly

**FOLFOX/CAPOX +
bevacizumab**



Dr Bendell

**FOLFOXIRI +
bevacizumab**



Dr Venook

**FOLFOXIRI +
bevacizumab**



Dr Catenacci

FOLFIRI + bevacizumab



Dr Wainberg

**FOLFOX/CAPOX +
bevacizumab**

What is your usual first-line treatment recommendation for a clinically stable 60-year-old patient with left-sided, pan-RAS wild-type, BRAF wild-type, MSI-high mCRC?

1. Pembrolizumab
2. Nivolumab
3. Nivolumab/ipilimumab
4. Chemotherapy
5. Chemotherapy + anti-VEGF antibody
6. Chemotherapy + anti-EGFR antibody
7. Chemotherapy + immunotherapy
8. Other

What is your usual first-line treatment recommendation for a clinically stable 60-year-old patient with left-sided, pan-RAS wild-type, BRAF wild-type, MSI-high mCRC?



Prof Arnold

Pembrolizumab



Dr Ciombor

Pembrolizumab



Dr Bekaii-Saab

Pembrolizumab



Dr O'Reilly

Pembrolizumab



Dr Bendell

Pembrolizumab



Dr Venook

Pembrolizumab



Dr Catenacci

Pembrolizumab



Dr Wainberg

Pembrolizumab

Regulatory and reimbursement issues aside, for a patient with pan-RAS wild-type mCRC with a BRAF V600E mutation, in what line of therapy would you generally administer BRAF-targeted therapy?



Prof Arnold

Second line



Dr Ciombor

Second line



Dr Bekaii-Saab

Second line



Dr O'Reilly

Second line



Dr Bendell

Second line



Dr Venook

Second line



Dr Catenacci

Second line











Dr Wainberg

Second line

For a patient with mCRC with a BRAF V600E mutation to whom you would administer BRAF-targeted therapy, what would be your preferred treatment?

1. Irinotecan + vemurafenib + EGFR antibody
2. Dabrafenib + trametinib + EGFR antibody
3. Encorafenib + binimetinib + EGFR antibody
4. Encorafenib + EGFR antibody
5. Other

For a patient with mCRC with a BRAF V600E mutation to whom you would administer BRAF-targeted therapy, what would be your preferred treatment?

 Prof Arnold	Encorafenib + cetuximab	 Dr Ciombor	Encorafenib + panitumumab
 Dr Bekaii-Saab	Encorafenib + panitumumab	 Dr O'Reilly	Encorafenib + cetuximab
 Dr Bendell	Encorafenib + panitumumab	 Dr Venook	Encorafenib + panitumumab
 Dr Catenacci	Encorafenib + cetuximab	 Dr Wainberg	Encorafenib + cetuximab

Gastric/GEJ

Regulatory and reimbursement issues aside, what would you currently recommend as second-line therapy for a patient with metastatic HER2-negative, MSS adenocarcinoma of the GEJ who has experienced disease progression on first-line FOLFOX?



Prof Arnold

Ramucirumab/
paclitaxel



Dr Ciombor

FOLFIRI/ramucirumab



Dr Bekaii-Saab

Test for PD-L1 CPS
and administer
pembrolizumab if ≥ 10



Dr O'Reilly

Ramucirumab/
paclitaxel



Dr Bendell

Test for PD-L1 CPS
and administer
pembrolizumab if ≥ 10



Dr Venook

Ramucirumab/
paclitaxel



Dr Catenacci

FOLFIRI/ramucirumab



Dr Wainberg

Ramucirumab/
paclitaxel

Regulatory and reimbursement issues aside, what would you currently recommend as second-line therapy for a patient with metastatic HER2-positive, MSS adenocarcinoma of the GEJ who has experienced disease progression on first-line FOLFOX/trastuzumab?



Prof Arnold

**Ramucirumab/
paclitaxel**



Dr Ciombor

FOLFIRI/ramucirumab



Dr Bekaii-Saab

**Trastuzumab
deruxtecan**



Dr O'Reilly

**Trastuzumab
deruxtecan**



Dr Bendell

**Test for PD-L1 CPS
and administer
pembrolizumab if $\geq 10\%$**



Dr Venook

**Ramucirumab/
paclitaxel**



Dr Catenacci

**Continue trastuzumab
and switch
chemotherapy**



Dr Wainberg









**Trastuzumab
deruxtecan**

Hepatocellular

What would be your current preferred first-line systemic treatment for a 65-year-old patient with HCC, a Child-Pugh B7 score and PS 1?

1. Sorafenib
2. Lenvatinib
3. Atezolizumab/bevacizumab
4. Chemotherapy
5. Other

What would be your current preferred first-line systemic treatment for a 65-year-old patient with HCC, a Child-Pugh B7 score and a PS of 1?

 Prof Arnold	Atezolizumab/ bevacizumab	 Dr Ciombor	Sorafenib
 Dr Bekaii-Saab	Atezolizumab/ bevacizumab	 Dr O'Reilly	Lenvatinib
 Dr Bendell	Atezolizumab/ bevacizumab	 Dr Venook	Atezolizumab/ bevacizumab
 Dr Catenacci	Atezolizumab/ bevacizumab	 Dr Wainberg	Lenvatinib

What would be your most likely second-line systemic therapy for a 65-year-old patient with HCC, a Child-Pugh A score and a PS of 0 who received first-line atezolizumab/bevacizumab with minimal toxicity, had stable disease for 14 months and then experienced disease progression (alpha-fetoprotein, AFP, 2,500 ng/mL)?



Prof Arnold

Cabozantinib



Dr Ciombor

Sorafenib



Dr Bekaii-Saab

Cabozantinib



Dr O'Reilly

Lenvatinib



Dr Bendell

Cabozantinib



Dr Venook

Lenvatinib



Dr Catenacci

Lenvatinib



Dr Wainberg

Ramucirumab

What would be your most likely second-line systemic therapy for a 65-year-old patient with HCC, a Child-Pugh A score and a PS of 0 who received first-line standard-dose sorafenib with minimal toxicity, had stable disease for 14 months and then experienced disease progression (AFP 2,500 ng/mL)?



Prof Arnold

Nivolumab



Dr Ciombor

**Atezolizumab/
bevacizumab**



Dr Bekaii-Saab

**Atezolizumab/
bevacizumab**



Dr O'Reilly

**Nivolumab/
ipilimumab**



Dr Bendell

**Atezolizumab/
bevacizumab**



Dr Venook

**Atezolizumab/
bevacizumab**



Dr Catenacci

**Atezolizumab/
bevacizumab**



Dr Wainberg

Ramucirumab

What would be your most likely third-line systemic therapy recommendation for an otherwise healthy 65-year-old patient with HCC who experienced disease progression on first-line atezolizumab/bevacizumab and second-line lenvatinib (AFP 2,500 ng/mL)?



Prof Arnold

Ramucirumab



Dr Ciombor

Ramucirumab



Dr Bekaii-Saab

Cabozantinib



Dr O'Reilly

**Nivolumab/
ipilimumab**



Dr Bendell

Cabozantinib



Dr Venook

Cabozantinib



Dr Catenacci

Ramucirumab



Dr Wainberg

Ramucirumab

Meet The Professor with Dr O'Reilly

MODULE 1: Journal Club with Dr O'Reilly — Pancreatic Cancer

MODULE 2: Case Presentations

- Dr Dayyani: A 54-year-old man with MSI-high metastatic colorectal cancer
- Dr Schafer: A 60-year-old woman with MSS metastatic sigmoid adenocarcinoma and a somatic BRCA2 mutation
- Dr Ciombor: A 60-year-old man with metastatic esophageal adenocarcinoma – PD-L1 CPS 70
- Dr Ibrahim: A 60-year-old man with infiltrative hepatocellular carcinoma
- Dr Dayyani: A 62-year-old woman with metastatic cholangiocarcinoma – FGFR2 rearrangement, MSS, TMB low

MODULE 3: Beyond the Guidelines

MODULE 4: Key Data Sets

Colorectal Cancer

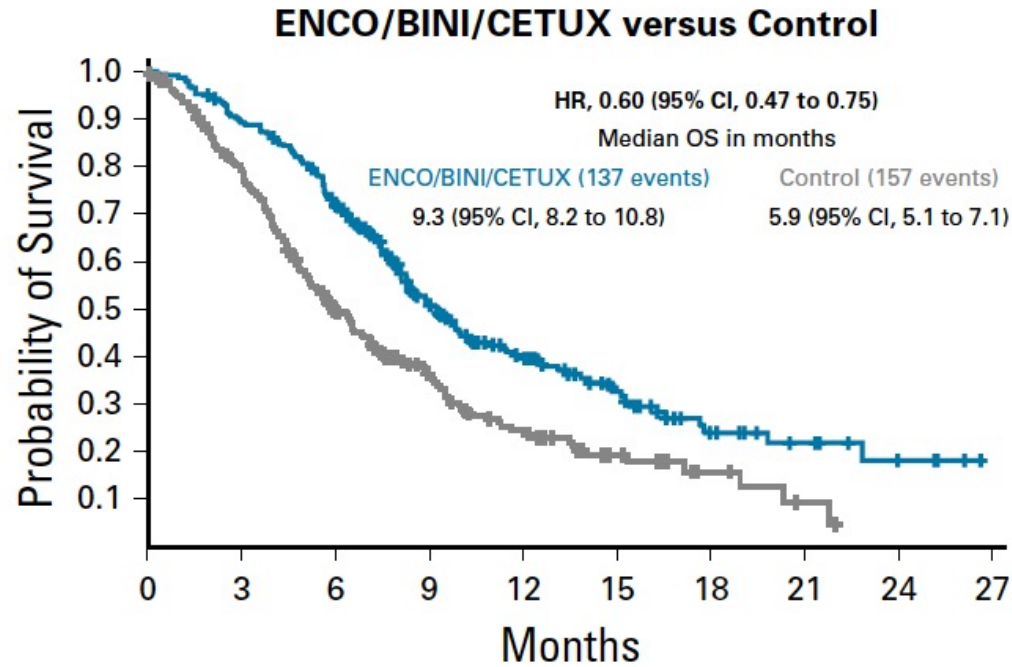
Encorafenib Plus Cetuximab as a New Standard of Care for Previously Treated *BRAF* V600E–Mutant Metastatic Colorectal Cancer: Updated Survival Results and Subgroup Analyses from the BEACON Study

Josep Tabernero, MD, PhD¹; Axel Grothey, MD²; Eric Van Cutsem, MD, PhD³; Rona Yaeger, MD⁴; Harpreet Wasan, MD⁵; Takayuki Yoshino, MD, PhD⁶; Jayesh Desai, MBBS⁷; Fortunato Ciardiello, MD, PhD⁸; Fotios Loupakis, MD, PhD⁹; Yong Sang Hong, MD, PhD¹⁰; Neeltje Steeghs, MD, PhD¹¹; Tormod Kyrre Guren, MD, PhD¹²; Hendrik-Tobias Arkenau, MD, PhD¹³; Pilar Garcia-Alfonso, MD¹⁴; Elena Elez, MD, PhD¹; Ashwin Gollerkeri, MD¹⁵; Kati Maharry, PhD¹⁵; Janna Christy-Bittel, MSN¹⁵; and Scott Kopetz, MD, PhD¹⁶

J Clin Oncol 2021;39(4):273-84.

BEACON: Overall Survival Results

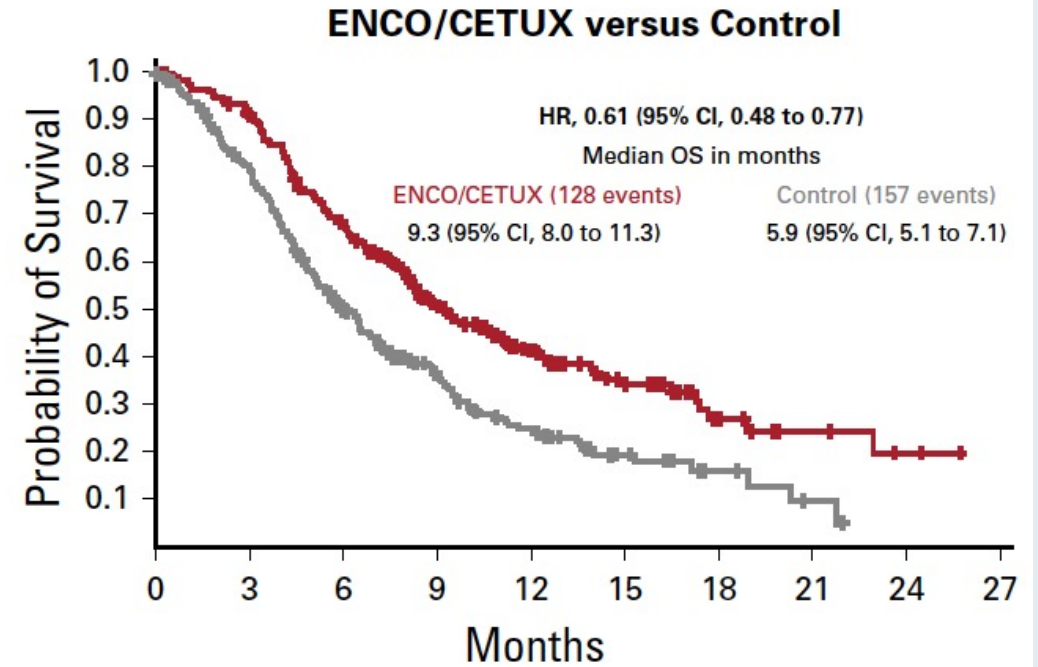
A



Number of patients at risk

ENCO/BINI/CETUX	224	198	157	89	56	33	15	9	4	0
Control	221	166	98	54	33	15	6	2	0	0

B



Number of patients at risk

ENCO/CETUX	220	197	143	83	47	28	13	7	2	0
Control	221	166	98	54	33	15	6	2	0	0

ANCHOR CRC: a single-arm, phase 2 study of encorafenib, binimetinib plus cetuximab in previously untreated $BRAF^{V600E}$ -mutant metastatic colorectal cancer

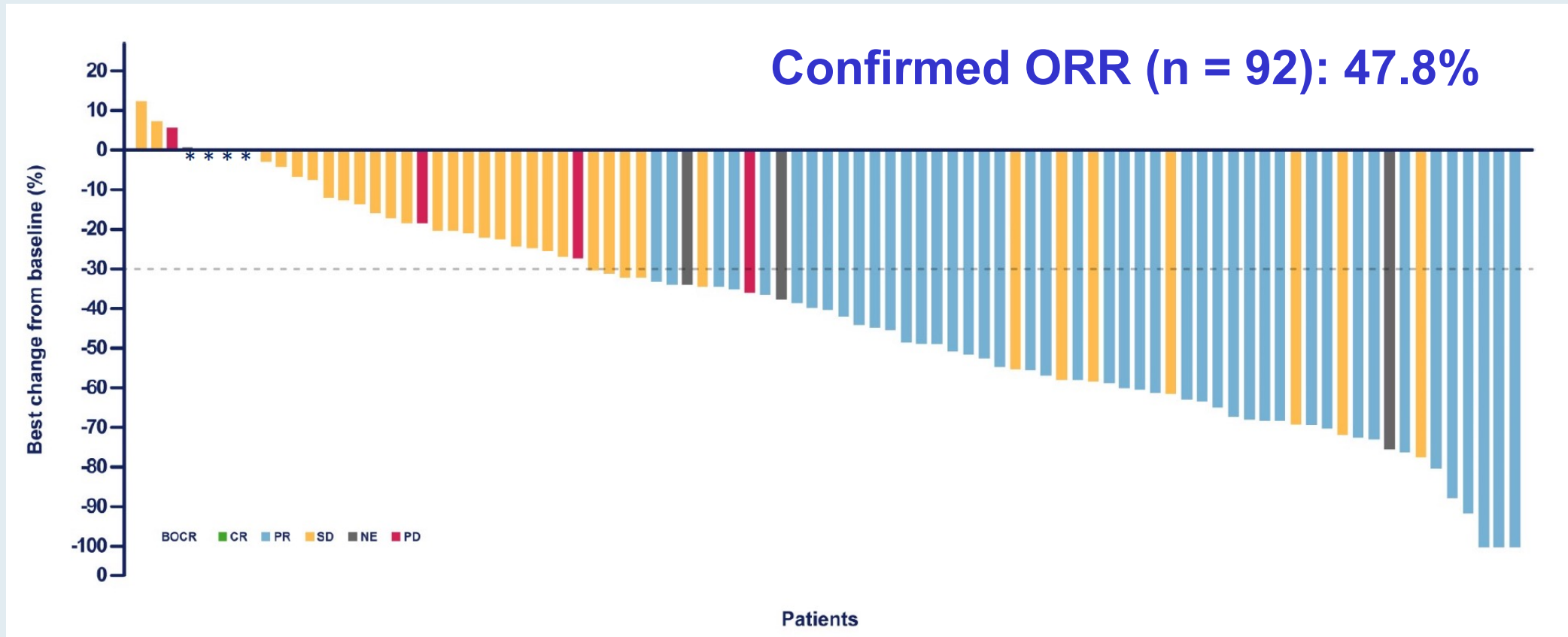
*Eric Van Cutsem**, Julien Taieb, Rona Yaeger, Takayuki Yoshino, Evaristo Maiello, Elena Elez Fernandez, Jeroen Dekervel, Paul Ross, Ana Ruiz Casado, Janet Graham, Takeshi Kato, Jose Carlos Ruffinelli, Thierry André, Edith Carrière Roussel, Isabelle Klauck, Mélanie Groc, Axel Grothey, Jean-Claude Vedovato, Josep Tabernero

* University Hospitals Leuven, Belgium

ANCHOR CRC: encorafenib, binimetinib and cetuximab in subjects with previously untreated BRAF-mutant colorectal cancer

ESMO World Congress on Gastrointestinal Cancer 2021; Abstract O-10.

ANCHOR CRC: Results Summary



- OS was 17.2 mos (with a median follow-up of 14.4 mos)
- The triplet combination was well-tolerated and there were no unexpected toxicities

BREAKWATER Study Design

An open-label, multicenter, randomized phase 3 study of 1st line encorafenib plus cetuximab with or without chemotherapy versus standard of care therapy in patients with metastatic *BRAF* V600E-mutant mCRC

Safety lead-in

Patients with *BRAF*^{V600E} mutant mCRC with 0 to 1 prior regimens in the metastatic setting

Phase 3

Patients with *BRAF*^{V600E} mutant mCRC and no prior systemic therapy in the metastatic setting

Encorafenib + cetuximab + mFOLFOX6
N=30
Encorafenib + cetuximab + FOLFIRI
N=30

Dosages

- Encorafenib, 300 mg PO QD
- Cetuximab, 500 mg/m² IV Q2W
- FOLFOX, full dose IV Q2W
- FOLFIRI, full dose IV Q2W

Randomize 1:1:1*

Arm A**
Encorafenib + cetuximab, N=290

Arm B**
Encorafenib + cetuximab + FOLFOX or
FOLFIRI^β, N=290

Control arm[§]
Physician's choice: FOLFOX, FOLFIRI,
FOLFOXIRI, CAPOX, all ± anti-VEGF
antibody, N=290

PRIMARY ENDPOINTS

PFS (BICR) Arm A vs Control
AND
PFS (BICR) Arm B vs Control
(BICR, blinded independent central review)

KEY SECONDARY ENDPOINTS

OS Arm A vs Control
AND
OS Arm B vs Control

OTHER ENDPOINTS

- Incidence of DLTs, adverse events, dose modifications/discontinuations due to AEs
- PK including drug-drug interactions

*Stratified by: ECOG PS 0 v. 1, Region US/Canada v. Western Europe v. ROW

**Same dosing as SLI; ^βFOLFOX or FOLFIRI based on SLI results; [§] No crossover.

ClinicalTrials.gov Identifier: NCT04607421

 BREAKWATER STUDY

FDA Approves New Dosing Regimen for Cetuximab

Press Release – April 6, 2021

“On April 6, 2021, the Food and Drug Administration approved a new dosage regimen of 500 mg/m² as a 120-minute intravenous infusion every two weeks (Q2W) for cetuximab for patients with K-Ras wild-type, EGFR-expressing colorectal cancer (mCRC) or squamous cell carcinoma of the head and neck (SCCHN).

The approval was based on population pharmacokinetic (PK) modeling analyses that compared the predicted exposures of cetuximab 500 mg Q2W to observed cetuximab exposures in patients who received cetuximab 250 mg weekly. The application was also supported by pooled analyses of overall response rates, progression-free survival, and overall survival (OS) from published literature in patients with CRC and SCCHN, and OS analyses using real-world data in patients with mCRC who received either the weekly cetuximab or Q2W regimens. In these exploratory analyses, the observed efficacy results were consistent across dosage regimens and supported the results of the population PK modeling analyses.

The most common adverse reactions (incidence $\geq 25\%$) to cetuximab are cutaneous adverse reactions (including rash, pruritus, and nail changes), headache, diarrhea, and infection.”

Final Overall Survival for the Phase 3 KN177 Study: Pembrolizumab Versus Chemotherapy in Microsatellite Instability-High/Mismatch Repair Deficient Metastatic Colorectal Cancer

Thierry André,¹ Kai-Keen Shiu,² Tae Won Kim,³ Benny Vittrup Jensen,⁴ Lars Henrik Jensen,⁵ Cornelis Punt,⁶ Denis Smith,⁷ Rocio Garcia-Carbonero,⁸ Julia Alcaide-Garcia,⁹ Peter Gibbs,¹⁰ Christelle de la Fouchardiere,¹¹ Fernando Rivera,¹² Elena Elez,¹³ Johanna Bendell,¹⁴ Dung T. Le,¹⁵ Takayuki Yoshino,¹⁶ Wenyan Zhong,¹⁷ David Fogelman,¹⁸ Patricia Marinello,¹⁸ Luis A. Diaz Jr¹⁹

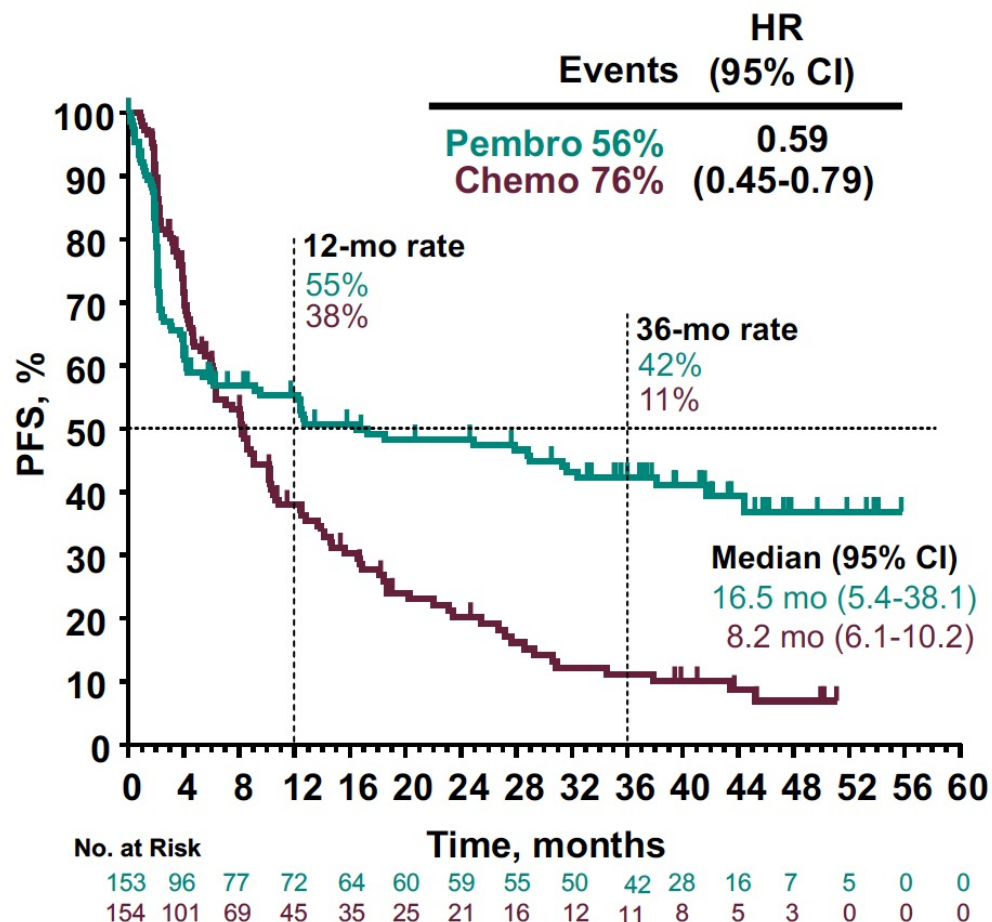
¹Sorbonne Université and Hôpital Saint Antoine, Paris, France; ²University College Hospital, NHS Foundation Trust, London, United Kingdom; ³Asan Medical Center, University of Ulsan, Seoul, Republic of Korea; ⁴Herlev and Gentofte Hospital, Herlev, Denmark; ⁵University Hospital of Southern Denmark, Vejle, Denmark; ⁶Amsterdam University Medical Centers, University of Amsterdam, Amsterdam, Netherlands; ⁷Bordeaux University Hospital, Bordeaux, France; ⁸Hospital Universitario 12 de Octubre, Ima12, CNIO, UCM, Madrid, Spain; ⁹Hospital Regional Universitario de Malaga, Malaga, Spain; ¹⁰Western Health, St Albans, Australia; ¹¹Léon Bérard Center, Lyon, France; ¹²Hospital Universitario Marques de Valdecilla, IDIVAL, Santander, Spain; ¹³Vall d'Hebron Institute of Oncology, Barcelona, Spain; ¹⁴Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN, USA; ¹⁵Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD, USA; ¹⁶National Cancer Center Hospital East, Kashiwa, Japan; ¹⁷MSD China, Beijing, China; ¹⁸Merck & Co., Inc. Kenilworth, NJ, USA; ¹⁹Memorial Sloan Kettering Cancer Center, New York, NY, USA

ESMO World Congress on Gastrointestinal Cancer 2021; Abstract O-8.

KEYNOTE-177: Progression-Free Survival

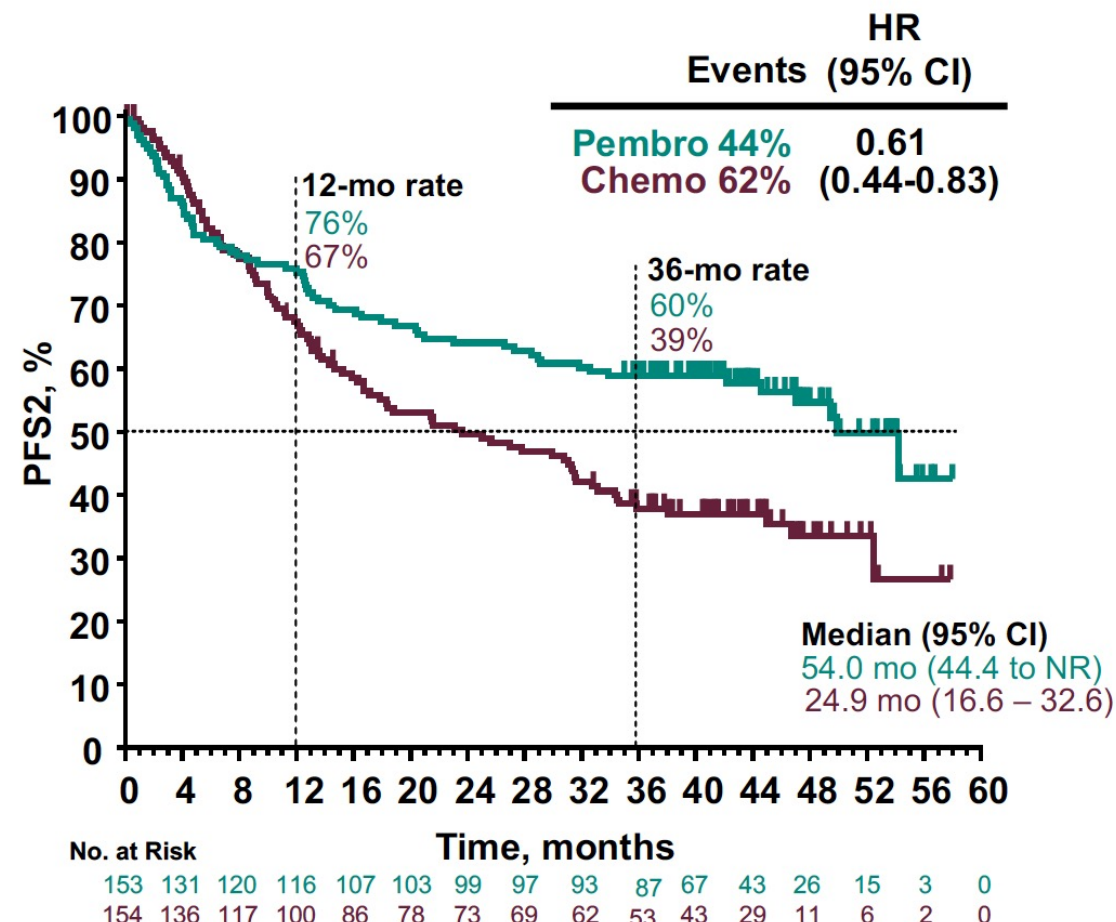
PFS

Time from randomization to progression or any cause death

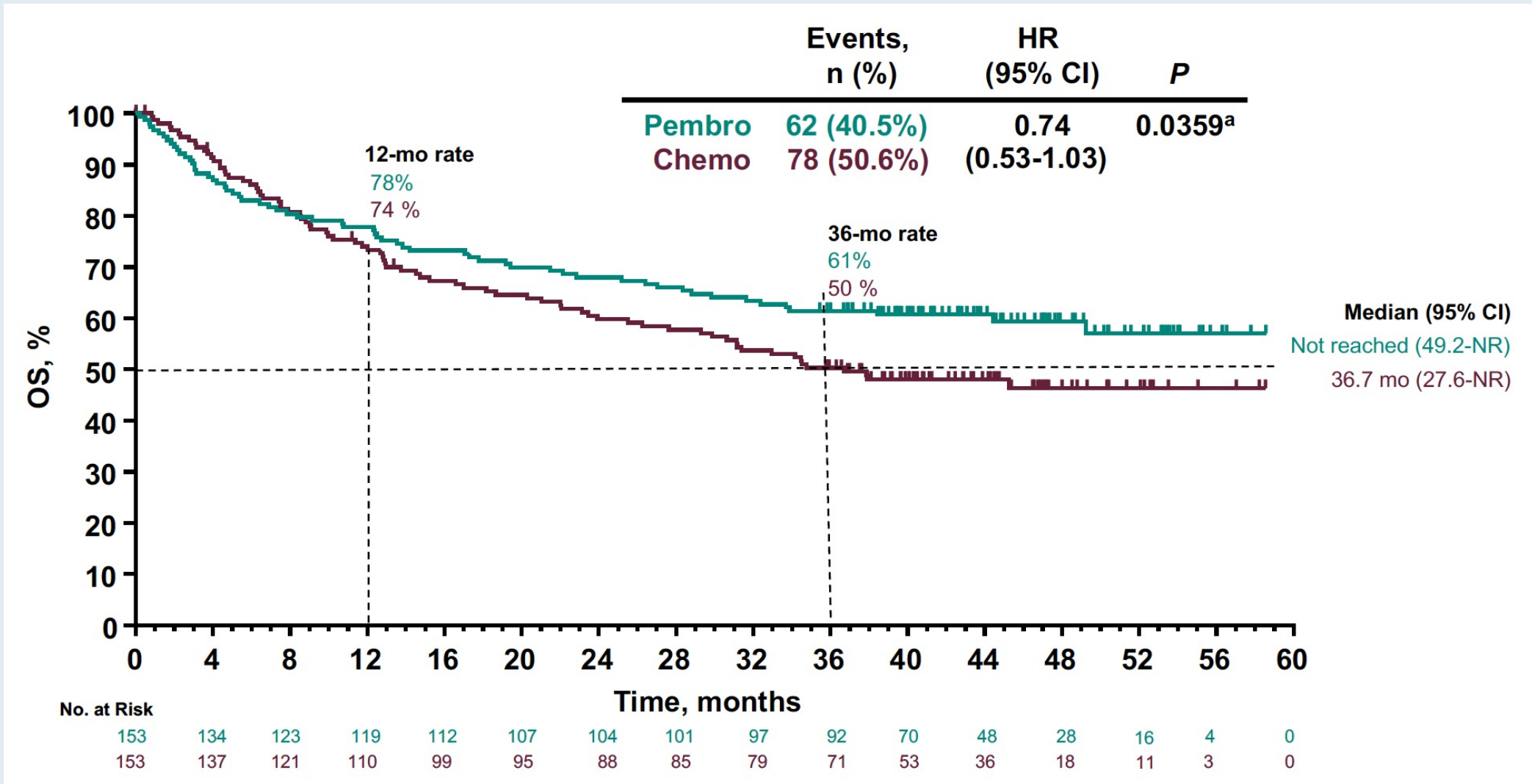


PFS2

Time from randomization to progression on next line therapy or any cause death



KEYNOTE-177: Overall Survival



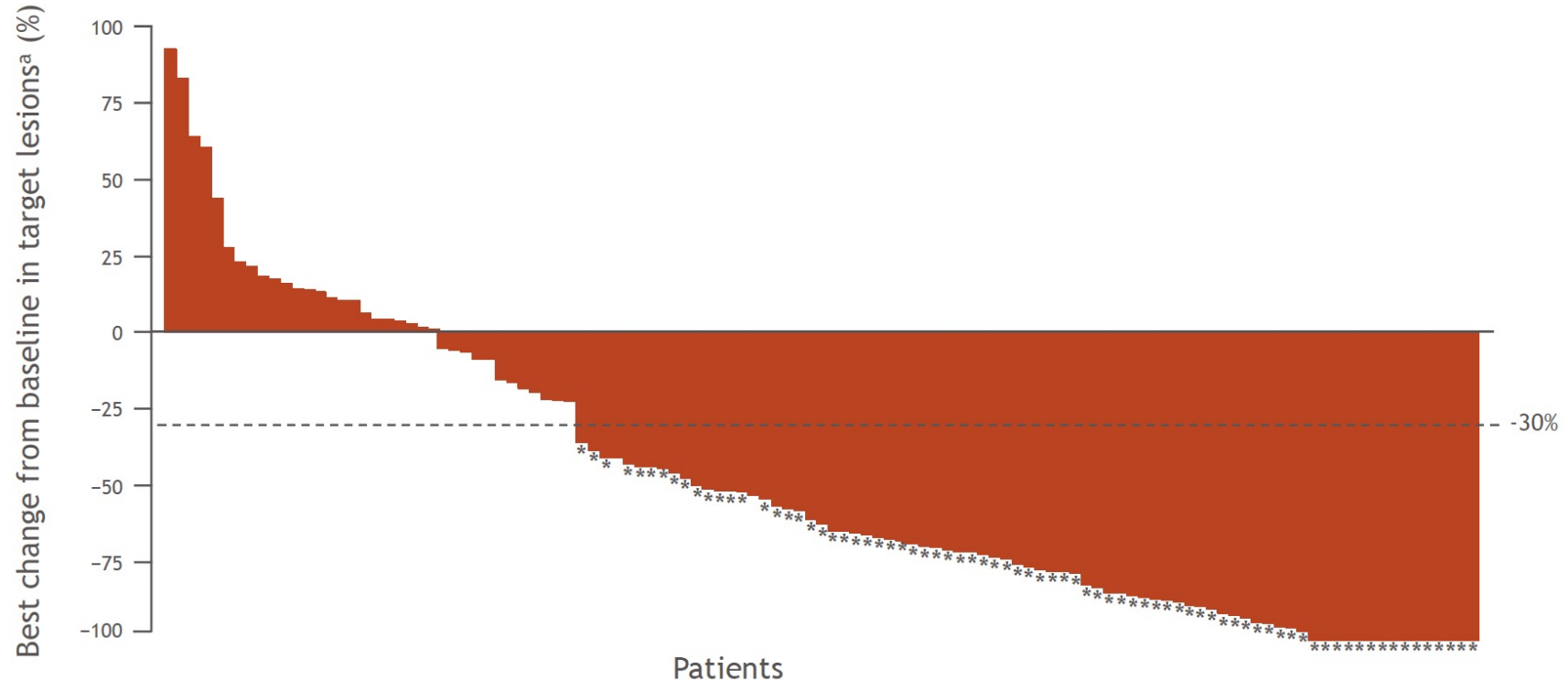
NIVOLUMAB PLUS LOW-DOSE IPILIMUMAB IN PREVIOUSLY TREATED PATIENTS WITH MICROSATELLITE INSTABILITY-HIGH/ MISMATCH REPAIR-DEFICIENT METASTATIC COLORECTAL CANCER: 4-YEAR FOLLOW-UP FROM CHECKMATE 142

Thierry André,¹ Sara Lonardi,² Ka Yeung Mark Wong,³ Heinz-Josef Lenz,⁴ Fabio Gelsomino,⁵ Massimo Aglietta,⁶ Michael A. Morse,⁷ Eric Van Cutsem,⁸ Ray McDermott,⁹ Andrew Hill,¹⁰ Michael B. Sawyer,¹¹ Alain Hendlisz,¹² Bart Neyns,¹³ Sandzhar Abdullaev,¹⁴ Arteid Memaj,¹⁴ Ming Lei,¹⁴ Scott Kopetz,¹⁵ Michael Overman¹⁵

¹Hôpital Saint Antoine, Assistance Publique Hôpitaux de Paris and Sorbonne Université, Paris, France; ²Istituto Oncologico Veneto IOV-IRCSS, Padova, Italy; ³Westmead Hospital, Sydney, NSW, Australia; ⁴University of Southern California Norris Comprehensive Cancer Center, Los Angeles, CA, USA; ⁵University Hospital of Modena, Modena, Italy; ⁶Candiolo Cancer Institute and University of Torino Medical School, Candiolo, Italy; ⁷Duke University Medical Center, Durham, NC, USA; ⁸University Hospitals Gasthuisberg/ Leuven and KU Leuven, Leuven, Belgium; ⁹St Vincent's University Hospital and Cancer Trials Ireland, Dublin, Ireland; ¹⁰Tasman Oncology Research, Ltd., Southport, QLD, Australia; ¹¹Cross Cancer Institute and University of Alberta, Edmonton, AB, Canada; ¹²Institut Jules Bordet, Brussels, Belgium; ¹³Universitair Ziekenhuis Brussel, Brussels, Belgium; ¹⁴Bristol Myers Squibb, Princeton, NJ, USA; ¹⁵MD Anderson Cancer Center, Houston, TX, USA

ESMO World Congress on Gastrointestinal Cancer 2021; Abstract SO-27.

CheckMate 142: Four-Year Update of Nivolumab/Ipilimumab as First-Line Therapy for MSI-H/dMMR mCRC



- Most patients (79%) had a reduction in tumor burden from baseline

- Median PFS and OS were not reached
- 48-month PFS rate: 53%
- 48-month OS rate: 70.5%

FDA Grants Accelerated Approval to Dostarlimab-gxly for dMMR Advanced Solid Tumors

Press Release – August 17, 2021

“The Food and Drug Administration granted accelerated approval to dostarlimab-gxly for adult patients with mismatch repair deficient (dMMR) recurrent or advanced solid tumors, as determined by an FDA-approved test, that have progressed on or following prior treatment and who have no satisfactory alternative treatment options.

Today, the FDA also approved the VENTANA MMR RxDx Panel as a companion diagnostic device to select patients with dMMR solid tumors for treatment with dostarlimab-gxly.

The efficacy of dostarlimab was evaluated in the GARNET Trial (NCT02715284), a non-randomized, multicenter, open-label, multi-cohort trial. The efficacy population consisted of 209 patients with dMMR recurrent or advanced solid tumors who progressed following systemic therapy and had no satisfactory alternative treatment.”

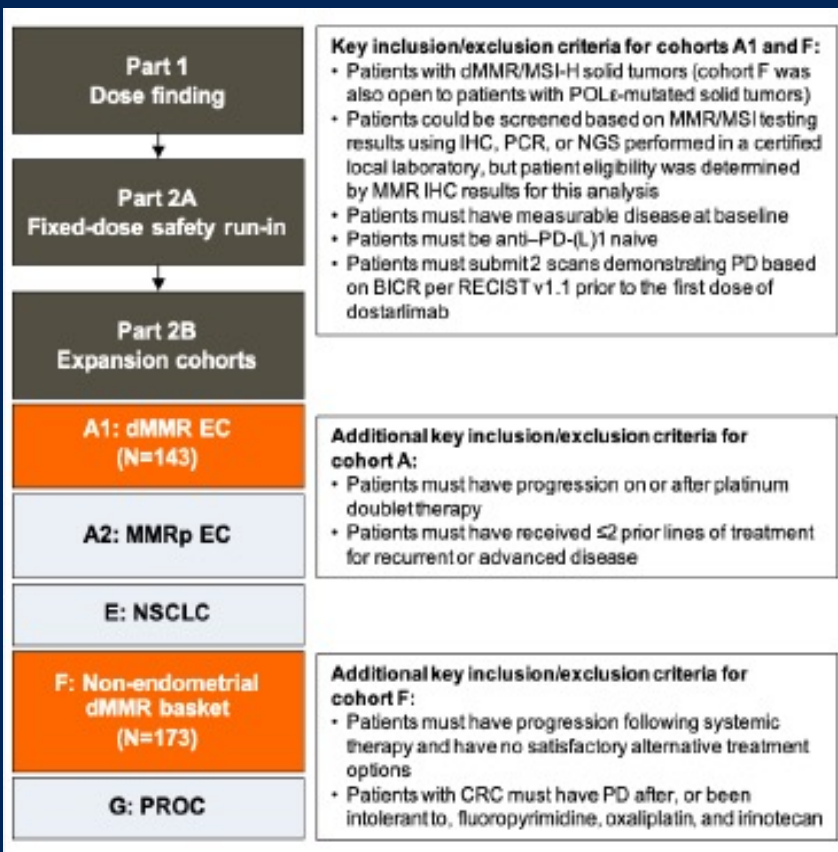
Antitumor Activity of Dostarlimab in Patients with Mismatch Repair–Deficient (dMMR) Tumors: A Combined Analysis of 2 Cohorts in the GARNET Study

Berton D et al.

ASCO 2021;Abstract 2564.

GARNET: Trial Design and Antitumor Activity

Trial Design



Key inclusion/exclusion criteria for cohorts A1 and F:

- Patients with dMMR/MSI-H solid tumors (cohort F was also open to patients with POLE-mutated solid tumors)
- Patients could be screened based on MMR/MSI testing results using IHC, PCR, or NGS performed in a certified local laboratory, but patient eligibility was determined by MMR IHC results for this analysis
- Patients must have measurable disease at baseline
- Patients must be anti-PD-(L)1 naive
- Patients must submit 2 scans demonstrating PD based on BICR per RECIST v1.1 prior to the first dose of dostarlimab

Additional key inclusion/exclusion criteria for cohort A:

- Patients must have progression on or after platinum doublet therapy
- Patients must have received ≤ 2 prior lines of treatment for recurrent or advanced disease

Additional key inclusion/exclusion criteria for cohort F:

- Patients must have progression following systemic therapy and have no satisfactory alternative treatment options
- Patients with CRC must have PD after, or been intolerant to, fluoropyrimidine, oxaliplatin, and irinotecan

Primary Endpoint Analysis

Variable	Cohort A1 (n=103)	Cohort F (n=106)	Cohorts A1 + F (n=209)
Median follow-up time, mo ^a	20.4	16.7	17.5
Confirmed responses, n	46	41	87
ORR, % (95% CI) ^b	44.7 (34.9–54.8)	38.7 (29.4–48.6)	41.6 (34.9–48.6)
CR, n (%)	11 (10.7)	8 (7.5)	19 (9.1)
PR, n (%)	35 (34.0)	33 (31.1)	68 (32.5)
SD, n (%)	13 (12.6)	26 (24.5)	39 (18.7)
PD, n (%)	39 (37.9)	32 (30.2)	71 (34.0)
NE, n (%)	5 (4.9)	7 (6.6)	3 (1.4)
Disease control rate, % (95% CI) ^c	57.3 (47.2–67.0)	63.2 (53.3–72.4)	60.3 (53.3–67.0)
Duration of response, median (range), mo	34.7 (2.63 to 35.78+)	NR (5.59 to 30.13+)	34.7 (2.63 to 35.78+)

Antitumor Activity by Tumor Type

Tumor type	Patients, N	Confirmed ORR (RECIST v1.1)	
		n (%)	95% CI, %
Overall	209	87 (41.6)	(34.9–48.6)
EC	103	46 (44.7)	(34.9–54.8)
CRC	69	25 (36.2)	(25.0–48.7)
Non-CRC	37	16 (43.2)	(27.1–60.5)
Small-intestinal cancer	12	4 (33.3)	(9.9–65.1)
Gastric and gastroesophageal junction cancer	8	3 (37.5)	(8.5–75.5)
Pancreatic carcinoma	4	SD, 3 PD	
Ovarian cancer	2	PR, SD	
Hepatocellular carcinoma	2	PR, PD	
Biliary neoplasm	2	2 CR	
Breast cancer	1	CR	
Adrenal cortical carcinoma	1	PR	
Malignant neoplasm of the female genitals	1	PR	
Pleural cancer	1	PR	
Unknown origin	1	PR	
Renal cell carcinoma	1	SD	
Esophageal cancer	1	PD	

GARNET Combined Cohort Analysis: Adverse Events

	Cohort A1 (N=143)	Cohort F (N=173)	Cohorts A1 + F (N=316)
Safety summary, n (%)			
Any TEAE	140 (97.9)	167 (96.5)	307 (97.2)
Any-grade TRAE	100 (69.9)	119 (68.8)	219 (69.3)
Grade ≥3 TEAE	72 (50.3)	85 (49.1)	157 (49.7)
Grade ≥3 TRAE	23 (16.1)	20 (11.6)	43 (13.6)
Treatment-related SAE	15 (10.5)	13 (7.5)	28 (8.9)
Any TRAE leading to discontinuation	8 (5.6)	8 (4.6)	16 (5.1)
TRAE leading to death ^a	0	2 (1.2)	2 (0.6)
TEAEs in ≥1% of patients leading to discontinuation, n (%)			
ALT increased	2 (1.4)	2 (1.2)	4 (1.3)
Any-grade TEAEs in ≥20% of patients, n (%)			
Anemia	45 (31.5)	55 (31.8)	100 (31.6)
Diarrhea	40 (28.0)	43 (24.9)	83 (26.3)
Asthenia	35 (24.5)	42 (24.3)	77 (24.4)
Nausea	45 (31.5)	26 (15.0)	71 (22.5)
Fatigue	36 (25.2)	28 (16.2)	64 (20.3)
Grade ≥3 TEAEs in ≥2% of patients, n (%)			
Anemia	21 (14.7)	13 (7.5)	34 (10.8)
Abdominal pain	7 (4.9)	6 (3.5)	13 (4.1)
Hyponatremia	6 (4.2)	5 (2.9)	11 (3.5)
Sepsis	4 (2.8)	6 (3.5)	10 (3.2)
ALT increased	3 (2.1)	5 (2.9)	8 (2.5)
Acute kidney injury	4 (2.8)	3 (1.7)	7 (2.2)
Lipase increased	3 (2.1)	4 (2.3)	7 (2.2)

	Cohort A1 (N=143)	Cohort F (N=173)	Cohorts A1 + F (N=316)
Grade ≥2 irTEAEs in ≥5% of patients, n (%)			
Diarrhea	12 (8.4)	11 (6.4)	23 (7.3)
Hypothyroidism	11 (7.7)	9 (5.2)	20 (6.3)
ALT increased	4 (2.8)	12 (6.9)	16 (5.1)
Grade ≥3 irTEAEs in ≥1% of patients, n (%)			
ALT increased	3 (2.1)	5 (2.9)	8 (2.5)
Lipase increased	3 (2.1)	4 (2.3)	7 (2.2)
AST increased	1 (0.7)	4 (2.3)	5 (1.6)
Diarrhea	3 (2.1)	2 (1.2)	5 (1.6)
Hyperglycemia	1 (0.7)	3 (1.7)	4 (1.3)

^a1 hepatic ischemia and 1 suicide.

ALT, alanine aminotransferase; AST, aspartate aminotransferase; ir, immune-related; SAE, serious adverse event; TEAE, treatment-emergent adverse event; TRAE, treatment-related adverse event.

Safety and efficacy of anti-PD-1 antibody dostarlimab in patients (pts) with mismatch repair-deficient (dMMR) solid cancers: Results from GARNET study

Thierry André¹, Dominique Berton², Giuseppe Curigliano³, Susan L. Ellard⁴, Jose Manuel Trigo Perez⁵, Hendrik-Tobias Arkenau⁶, Cyril Abdeddaim⁷, Victor Moreno⁸, Wei Guo⁹, Ellie Im⁹, Naureen Starling¹⁰

¹Sorbonne University and Saint-Antoine Hospital, Paris, France; ²GINECO & Institut de Cancerologie de l'Ouest, Centre René Gauducheau, Saint-Herblain, France; ³Division of Early Drug Development for Innovative Therapies, IEO, European Institute of Oncology IRCCS, and University of Milano, Milan, Italy; ⁴BC Cancer-Kelowna, British Columbia, Canada; ⁵Medical Oncology Department, Hospital Ramón y Cajal, Madrid, Spain; ⁶Sarah Cannon Research Institute UK Limited, London, UK; ⁷Centre de Lutte Contre le Cancer-Centre Oscar Lambret, Lille, France; ⁸START Madrid-FJD, Fundación Jiménez Díaz Hospital, Madrid, Spain; ⁹GlaxoSmithKline, Waltham, MA, USA; ¹⁰ Royal Marsden Hospital NHS Foundation Trust, London and Surrey, UK

Email: thierry.andre@aphp.fr

Abstract 9

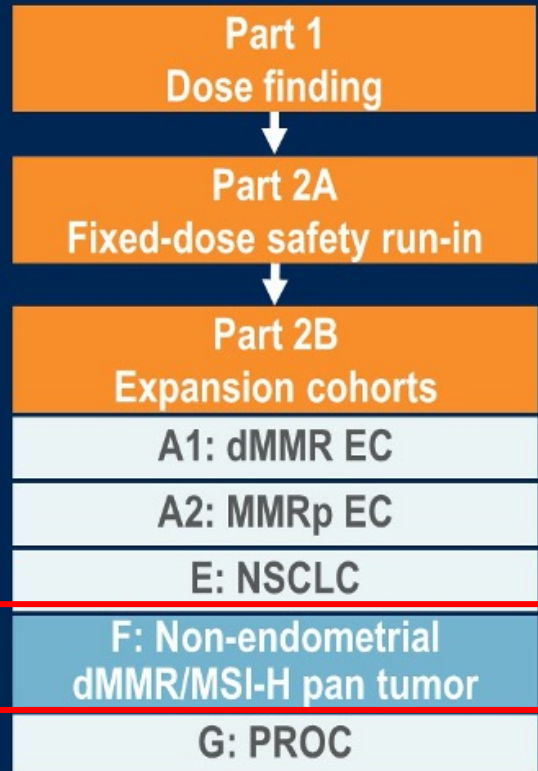
PRESENTED AT:

Gastrointestinal
Cancers Symposium

#GI21

GARNET: Methods, Patient Characteristics and Antitumor Activity

Cohorts



Patient Characteristics

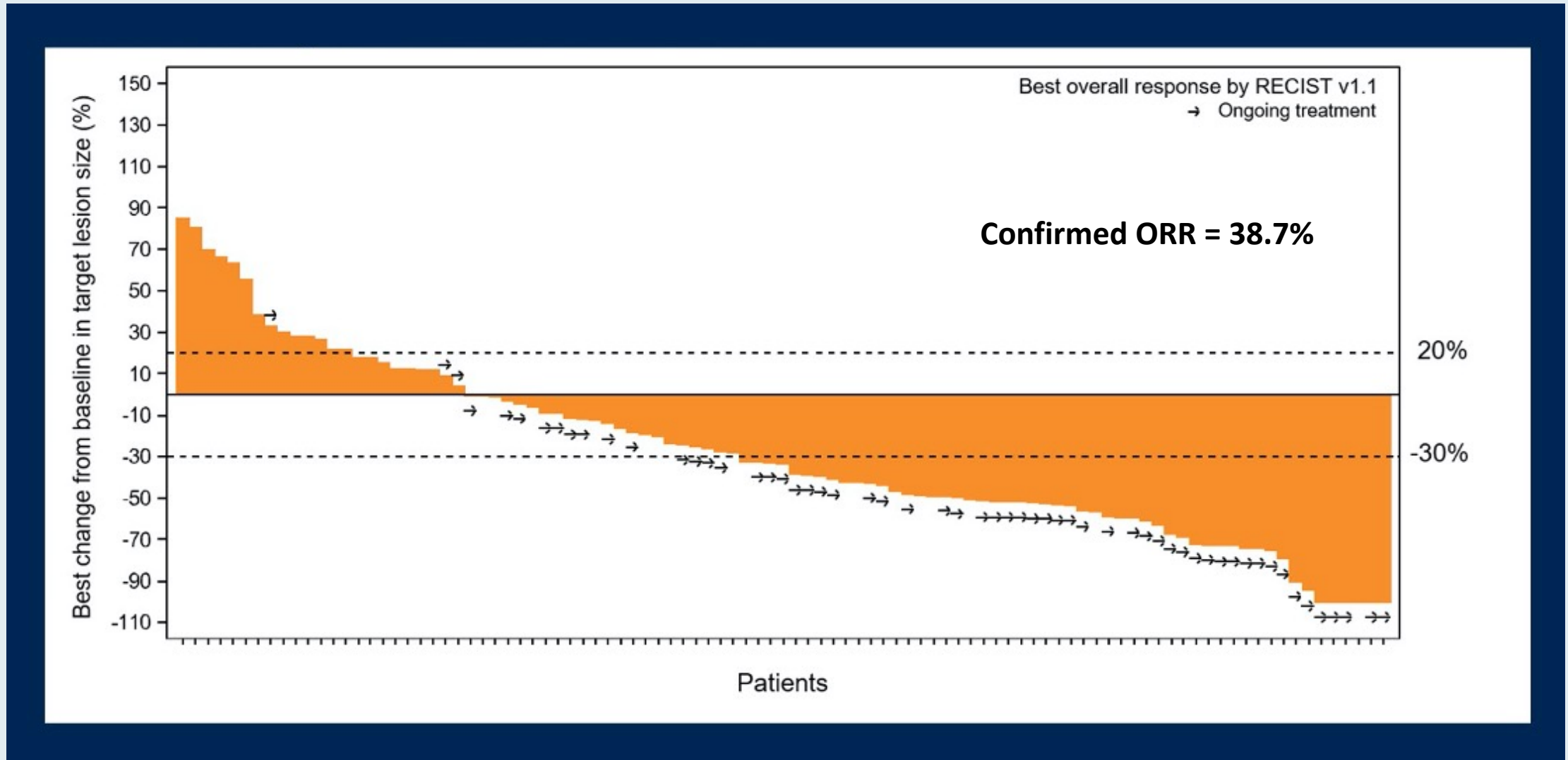
Characteristic	Cohort F N=106
Median age, years (range)	61.5 (24–85)
Sex, n (%)	
Male	58 (55)
Female	48 (45)
ECOG performance status, n (%)	
0	42 (40)
1	64 (60)
Histology, n (%)	
Colorectal	69 (65)
Small intestine	12 (11)
Gastric and gastroesophageal junction	8 (8)
Pancreatic carcinoma	4 (4)
Ovarian	2 (2)
Hepatocellular carcinoma	2 (2)
Other ^a	9 (8)

Response

Tumor type	Patients, N	Confirmed ORR (RECIST v1.1)	
		n	95% CI ^a
Overall	106	41 (38.7%)	(29.4%–48.6%)
CRC	69	25 (36.2%)	(25.0%–48.7%)
Non-CRC	37	16 (43.2%)	(27.1%–60.5%)
Small intestinal cancer	12	4 (33.3%)	(9.9%–65.1%)
Gastric and gastroesophageal junction	8	3 (37.5%)	(8.5%–75.5%)
Pancreatic carcinoma	4	SD, 3 PD	
Ovarian cancer	2	PR, SD	
Hepatocellular carcinoma	2	PR, PD	
Biliary neoplasm	1	CR	
Breast cancer	1	CR	
Gallbladder	1	CR	
Adrenal cortical	1	PR	
Genital neoplasm malignant female	1	PR	
Pleural	1	PR	
Unknown origin	1	PR	
Renal cell carcinoma	1	SD	
Esophageal cancer	1	PD	

dMMR = mismatch repair-deficient; EC = endometrial cancer; MMRp = mismatch mutation repair-proficient; NSCLC = non-small cell lung cancer; PROC = platinum-resistant ovarian cancer

GARNET Cohort F: Best Volume Change in Target Lesions



GARNET Cohort F: Adverse Events

Preferred term, n (%)		Cohort F (N=144 ^a)	Preferred term, n (%)		Cohort F (N=144 ^a)
Any grade TRAEs occurring in ≥5% of pts			Grade ≥3 TRAEs occurring in ≥1% of pts		
Asthenia		19 (13)	Lipase increased ^b		2 (1)
Diarrhea		18 (13)	Hyperlipasemia ^c		2 (1)
Pruritis		18 (13)	Grade ≥3 irTRAEs		
Arthralgia		13 (9)	Lipase increased		2 (1)
Fatigue		13 (9)	Adrenal insufficiency		1 (<1)
Hypothyroidism		12 (8)	ALT increased		1 (<1)
Rash		12 (8)	AST increased		1 (<1)
AST increased		11 (8)	Diarrhea		1 (<1)
ALT increased		9 (6)	Hyperthyroidism		1 (<1)
Nausea		8 (6)	Rash		1 (<1)

2021 ASCO[®]
ANNUAL MEETING

Abstract 3505

The logo for DESTINY-CRC01 features a stylized sun or globe icon above the text. The icon consists of a yellow arc on the left, a blue arc on the right, and a green arc at the bottom, all within a white circular frame. Below the icon, the text "DESTINY-CRC01" is written in a bold, dark blue, sans-serif font.

DESTINY-CRC01

Trastuzumab Deruxtecan (T-DXd; DS-8201) in Patients With HER2-expressing Metastatic Colorectal Cancer: Final Results From a Phase 2, Multicenter, Open-label Study (DESTINY-CRC01)

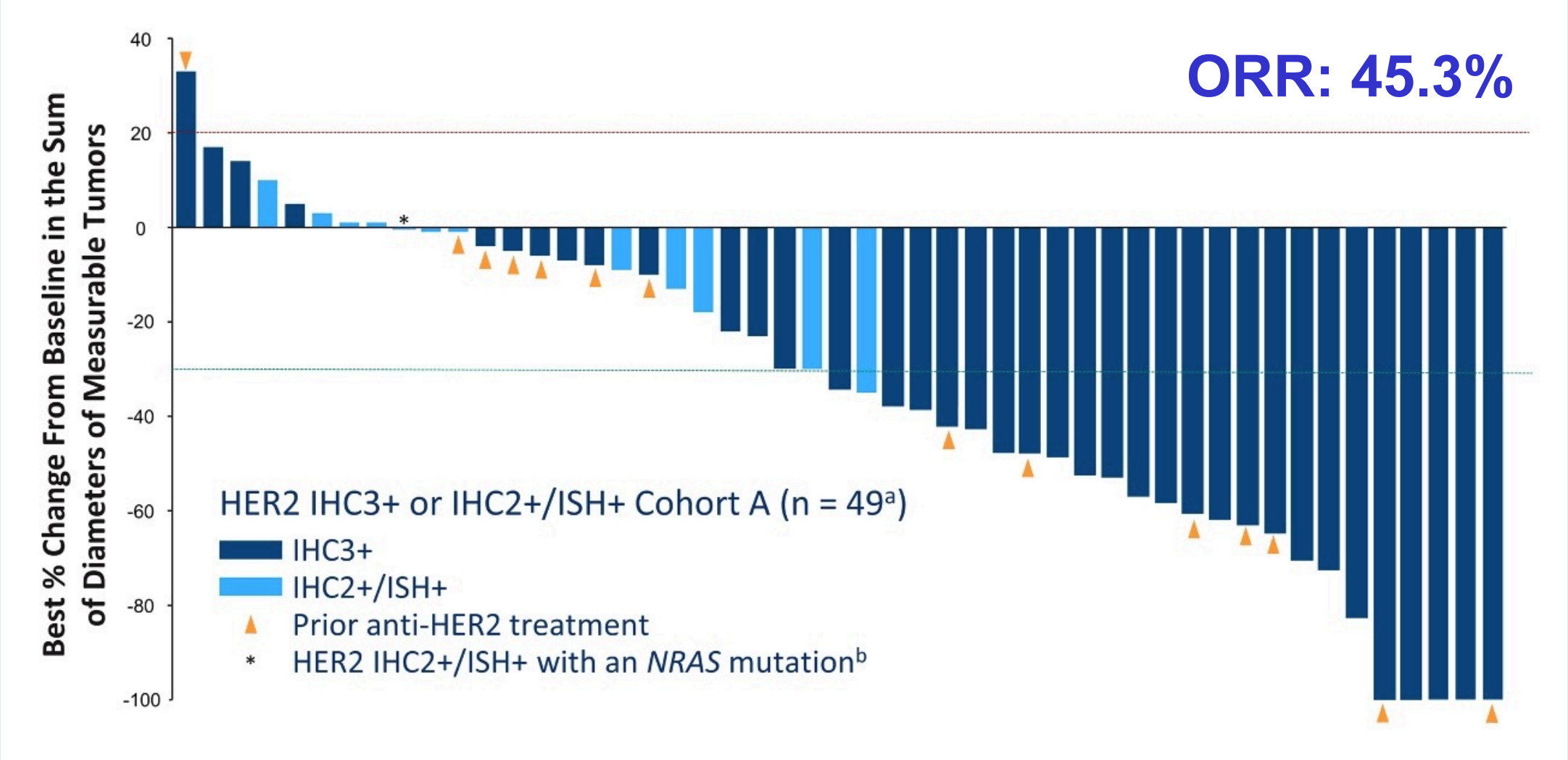
Takayuki Yoshino; National Cancer Center Hospital East, Kashiwa, Japan

June 7, 2021

Additional authors: Maria Di Bartolomeo, Kanwal Raghav, Toshiki Masuishi, Fotios Loupakis, Hisato Kawakami, Kensei Yamaguchi, Tomohiro Nishina, Zev Wainberg, Elena Elez, Javier Rodriguez, Marwan Fakih, Fortunato Ciardiello, Kapil Saxena, Kojiro Kobayashi, Emarjola Bako, Yasuyuki Okuda, Gerold Meinhardt, Axel Grothey, Salvatore Siena

On behalf of the DESTINY-CRC01 investigators

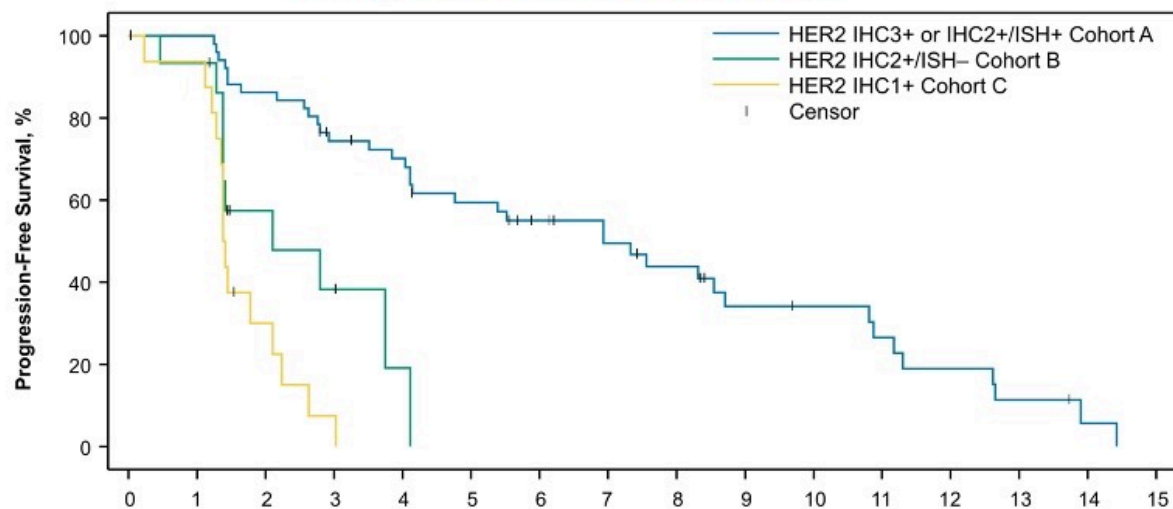
DESTINY-CRC01: Best Change in Tumor Size in Cohort A



Yoshino T et al. ASCO 2021;Abstract 3500.

DESTINY-CRC01: Progression-Free and Overall Survival

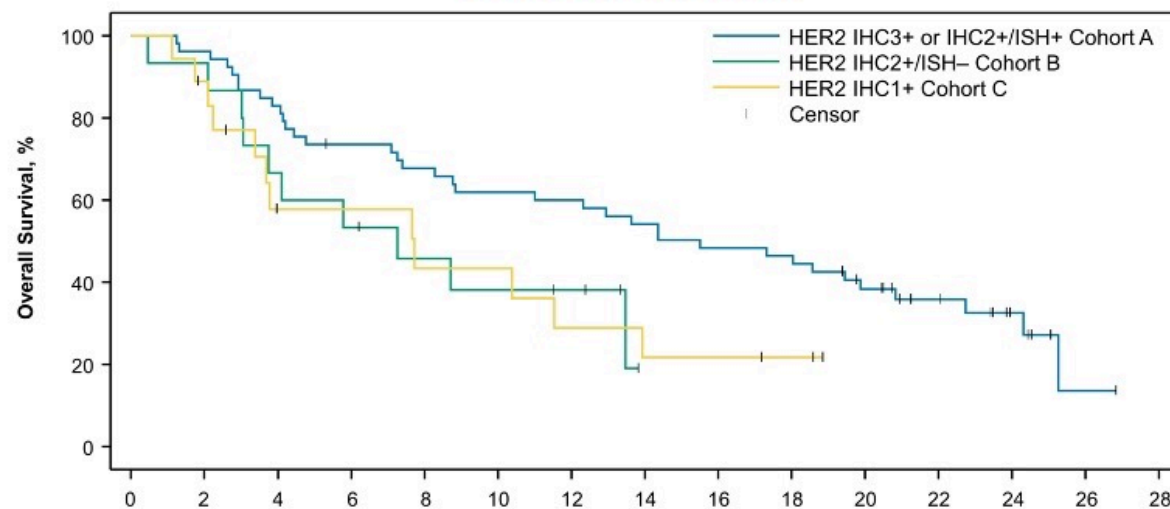
Progression-Free Survival



No. at Risk	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cohort A	53	51	44	36	33	27	22	18	15	10	9	7	5	3	1	0
Cohort B	15	14	6	4	1	0	0	0	0	0	0	0	0	0	0	0
Cohort C	18	15	4	1	0	0	0	0	0	0	0	0	0	0	0	0

	HER2 IHC3+ or IHC2+/ISH+ Cohort A (n = 53)	HER2 IHC2+/ISH- Cohort B (n = 15)	HER2 IHC1+ Cohort C (n = 18)
mPFS (95% CI), months	6.9 (4.1-8.7)	2.1 (1.4-4.1)	1.4 (1.3-2.1)

Overall Survival



No. at Risk	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28
Cohort A	53	51	44	38	35	32	31	28	25	24	18	12	6	1	0
Cohort B	15	14	10	8	6	5	4	0	0	0	0	0	0	0	0
Cohort C	18	15	8	8	6	6	4	3	3	2	0	0	0	0	0

	HER2 IHC3+ or IHC2+/ISH+ Cohort A (n = 53)	HER2 IHC2+/ISH- Cohort B (n = 15)	HER2 IHC1+ Cohort C (n = 18)
mOS (95% CI), months	15.5 (8.8-20.8)	7.3 (3.0-NE)	7.7 (2.2-13.9)

DESTINY-CRC01 AEs of Special Interest: Interstitial Lung Disease

All Patients (N=86)	n (%)
Grade 1	0
Grade 2	4 (4.7)
Grade 3	1 (1.2)
Grade 4	0
Grade 5	3 (3.5) ^a
Any Grade/Total	8 (9.3) ^{b,c}

Adjudicated drug-related ILDs:

- Median time to adjudicated onset was 61.0 days (range, 9-165 days)
- 8 of 8 patients received corticosteroids
- 4 patients with grade 2 recovered and 1 patient with grade 3 did not recover (later died due to disease progression)
- Median time from adjudicated onset date to initiation of steroid treatment in the 8 ILD cases was 3.5 days, (range 0-50)

Grade 5 ILDs:

- In the 3 fatal cases adjudicated as drug-related ILD, onset was from 9 days to 120 days (median: 22 days); and death occurred 6-19 days after diagnosis (median: 6 days)

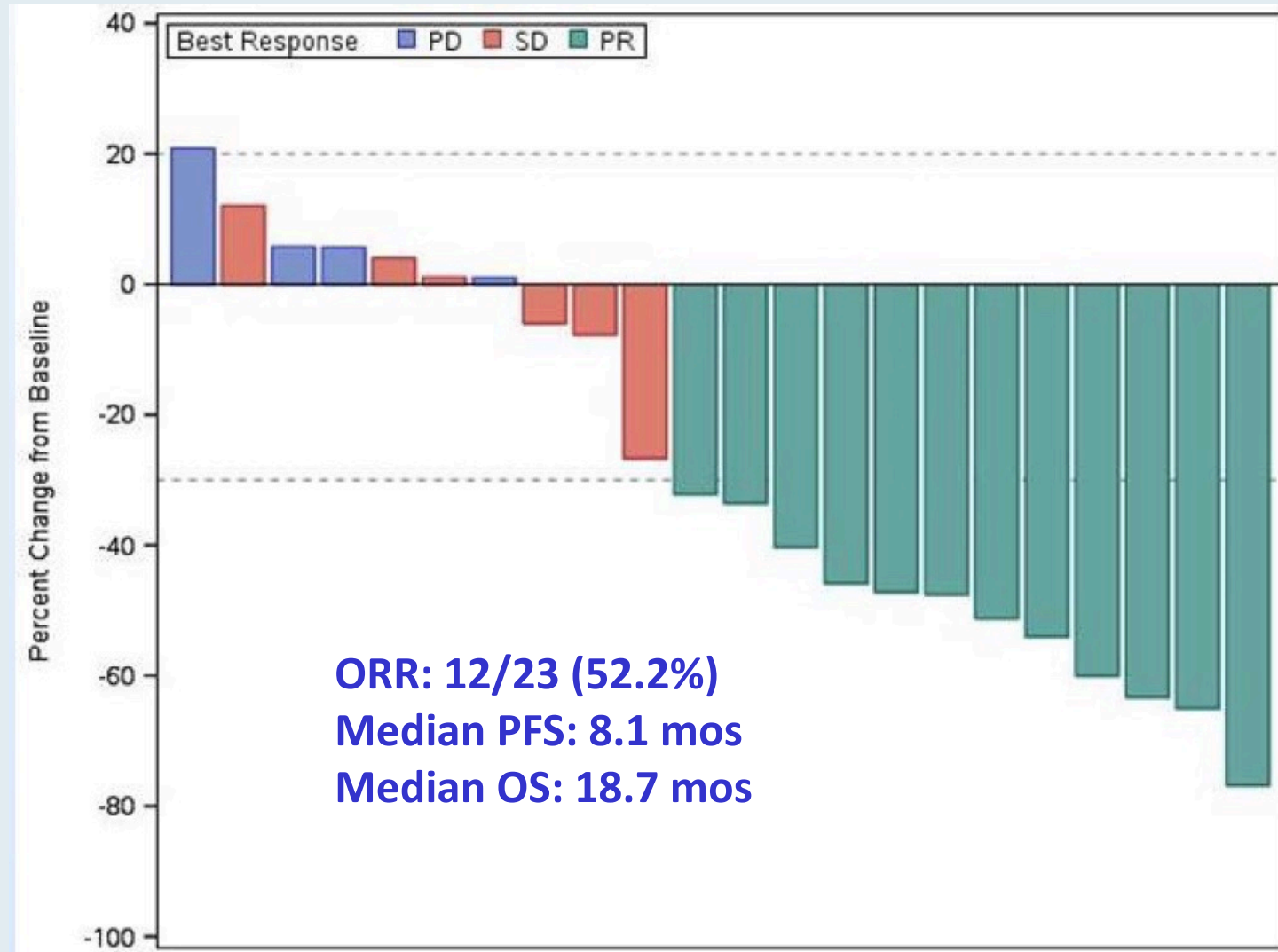
Updated ILD/pneumonitis guidelines recommend to monitor for symptoms, interrupt or discontinue T-DXd, conduct imaging (as clinically indicated), and start steroids as soon as ILD is suspected.

Trastuzumab and Tucatinib for the Treatment of HER2 Amplified Metastatic Colorectal Cancer: Initial Results from the MOUNTAINEER Trial

Strickler JH et al.

ESMO 2019;Abstract 527PD.

MOUNTAINEER: Response and Survival



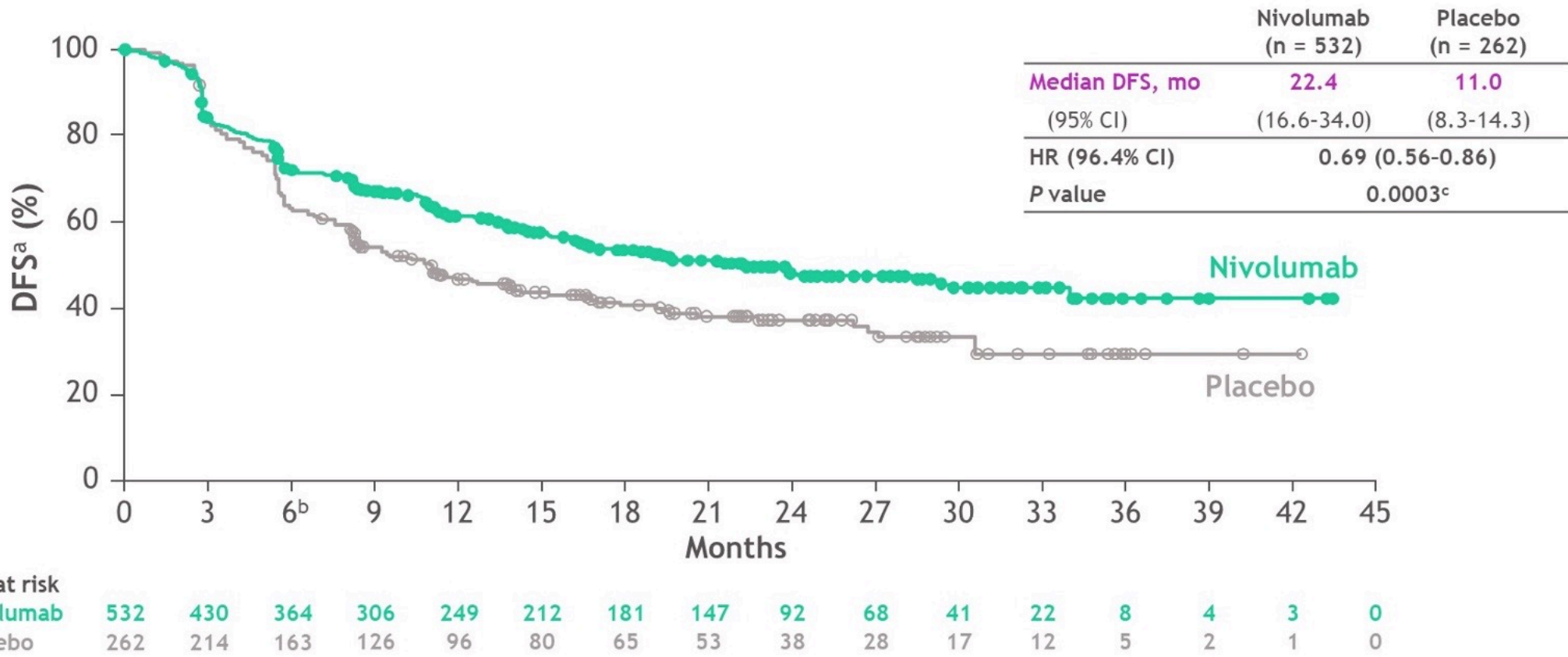
Gastric/GEJ/Esophageal Cancer

Adjuvant nivolumab in resected esophageal or gastroesophageal junction cancer following neoadjuvant chemoradiotherapy: expanded efficacy and safety analyses from CheckMate 577

Ronan J. Kelly,¹ Jaffer A. Ajani,² Jaroslaw Kuzdzal,³ Thomas Zander,⁴ Eric Van Cutsem,⁵ Guillaume Piessen,⁶ Guillermo Mendez,⁷ Josephine Feliciano,⁸ Satoru Motoyama,⁹ Astrid Lièvre,¹⁰ Hope Uronis,¹¹ Elena Elimova,¹² Cecile Grootsholten,¹³ Karen Geboes,¹⁴ Jenny Zhang,¹⁵ Samira Soleymani,¹⁵ Ming Lei,¹⁵ Prianka Singh,¹⁵ James M. Cleary,¹⁶ Markus Moehler¹⁷

¹The Charles A. Sammons Cancer Center at Baylor University Medical Center, Dallas, TX; ²The University of Texas MD Anderson Cancer Center, Houston, TX; ³Jagiellonian University, John Paul II Hospital, Cracow, Poland; ⁴University Hospital of Cologne, Cologne, Germany; ⁵University Hospitals Gasthuisberg, Leuven and KU Leuven, Leuven, Belgium; ⁶University of Lille, Claude Huriez University Hospital, Lille, France; ⁷Fundacion Favaloro, Buenos Aires, Argentina; ⁸Johns Hopkins Sidney Kimmel Comprehensive Cancer Center, Baltimore, MD; ⁹Akita University Hospital, Akita, Japan; ¹⁰CHU Pontchaillou, Rennes 1 University, Rennes, France; ¹¹Duke Cancer Institute, Durham, NC; ¹²Princess Margaret Cancer Centre, Toronto, ON, Canada; ¹³Netherlands Cancer Institute-Antoni van Leeuwenhoek Hospital, Amsterdam, Netherlands; ¹⁴UZ Gent, Gent, Belgium; ¹⁵Bristol Myers Squibb, Princeton, NJ; ¹⁶Dana Farber Cancer Institute, Boston, MA; ¹⁷Johannes-Gutenberg University Clinic, Mainz, Germany

CheckMate 577: Disease-Free Survival



- Nivolumab provided superior DFS with a 31% reduction in the risk of recurrence or death and a doubling in median DFS versus placebo

FDA Approves Pembrolizumab in Combination with Chemotherapy for Esophageal or GEJ Carcinoma

Press Release – March 22, 2021

“On March 22, 2021, the Food and Drug Administration approved pembrolizumab in combination with platinum and fluoropyrimidine-based chemotherapy for patients with metastatic or locally advanced esophageal or gastroesophageal (GEJ) (tumors with epicenter 1 to 5 centimeters above the gastroesophageal junction) carcinoma who are not candidates for surgical resection or definitive chemoradiation.

Efficacy was evaluated in KEYNOTE-590 (NCT03189719), a multicenter, randomized, placebo-controlled trial that enrolled 749 patients with metastatic or locally advanced esophageal or gastroesophageal junction carcinoma who were not candidates for surgical resection or definitive chemoradiation.

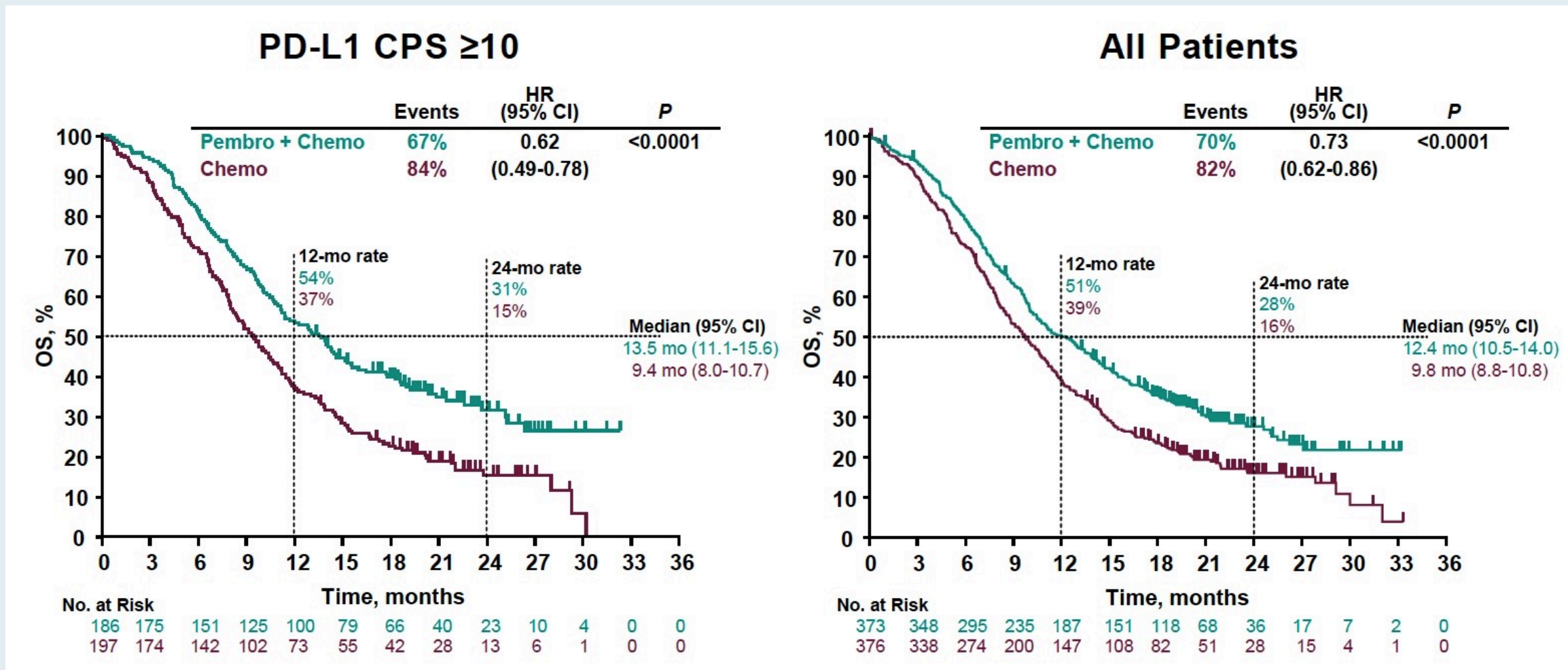
The recommended pembrolizumab dose for esophageal cancer is 200 mg every 3 weeks or 400 mg every 6 weeks.”

Pembrolizumab plus Chemotherapy versus Chemotherapy as First-Line Therapy in Patients with Advanced Esophageal Cancer: The Phase 3 KEYNOTE-590 Study

Kato K et al.

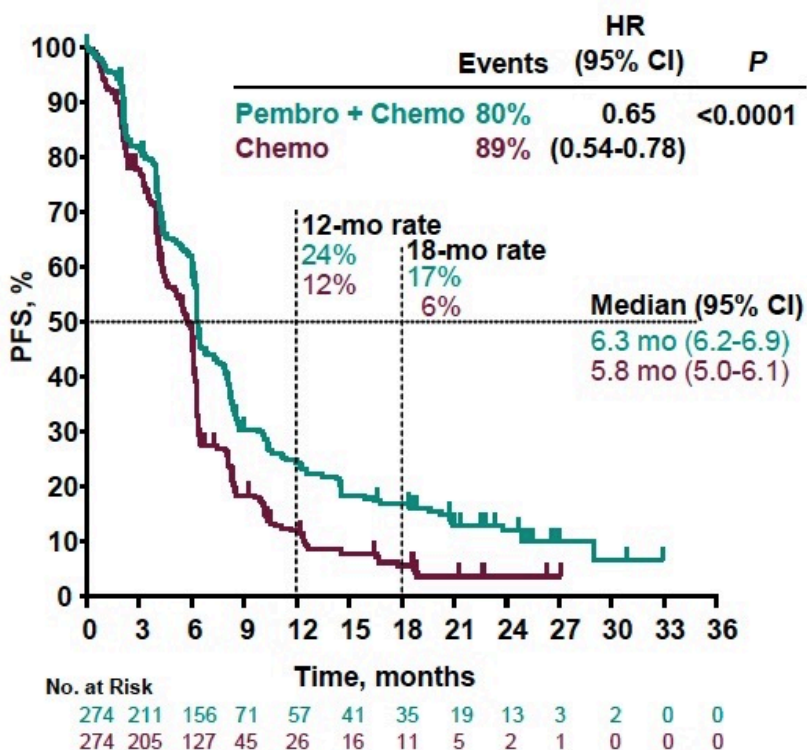
ESMO 2020;Abstract LBA8_PR.

KEYNOTE-590: Overall Survival

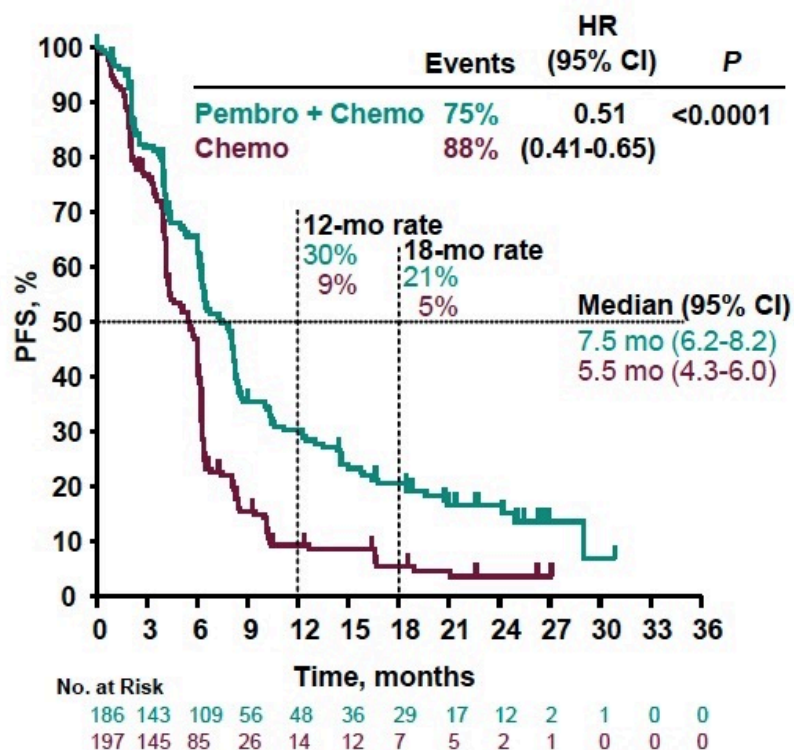


KEYNOTE-590: Progression-Free Survival

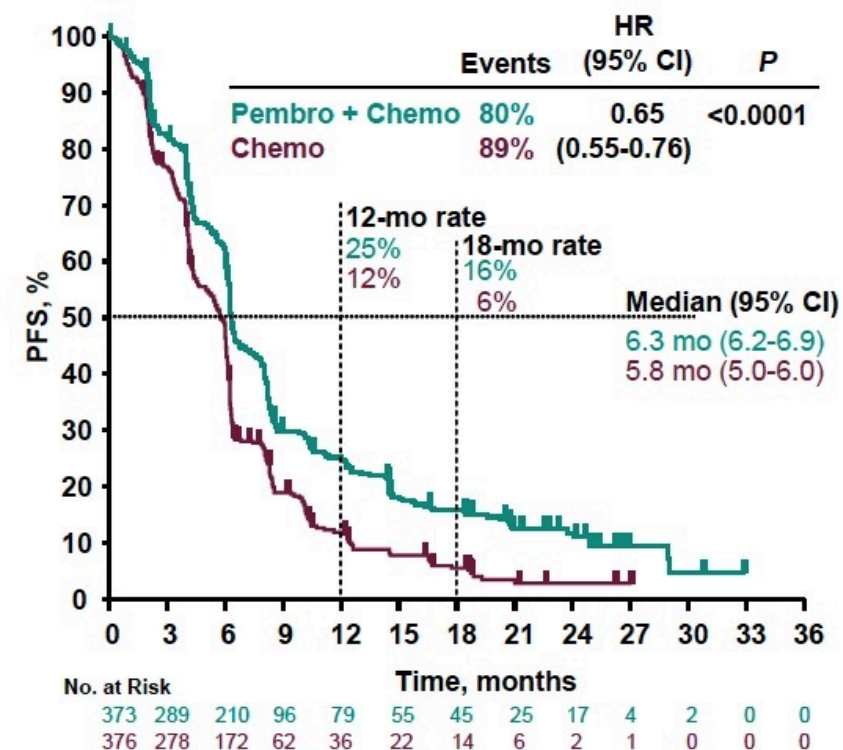
ESCC



PD-L1 CPS ≥10



All Patients



FDA Approves Nivolumab with Chemotherapy for Front-Line Advanced Gastric Cancer

Press Release – April 16, 2021

“The FDA approved nivolumab in combination with certain types of chemotherapy for the frontline treatment of patients with advanced or metastatic gastric cancer, gastroesophageal junction cancer and esophageal adenocarcinoma, making it the first approved immunotherapy for this patient population.

The agency based the approval on data from the randomized, multicenter, open-label phase 3 CheckMate-649 trial, designed to evaluate nivolumab – a monoclonal antibody that inhibits tumor growth by enhancing T-cell function – plus chemotherapy in 1,581 patients with previously untreated advanced or metastatic gastric cancer, gastroesophageal junction cancer and esophageal adenocarcinoma. Of the 789 patients treated in the nivolumab arm, median overall survival was 13.8 months, compared with 11.6 months for patients who received chemotherapy alone.”

https://www.cancernetwork.com/view/fda-approves-nivolumab-plus-chemo-for-frontline-advanced-gastric-cancer?utm_source=sfmc&utm_medium=email&utm_campaign=4.16.21_CN_Breaking&eKey=Z2tlbGx5QHJlc2VhcmNodG9wcmFjdGljZS5jb20=

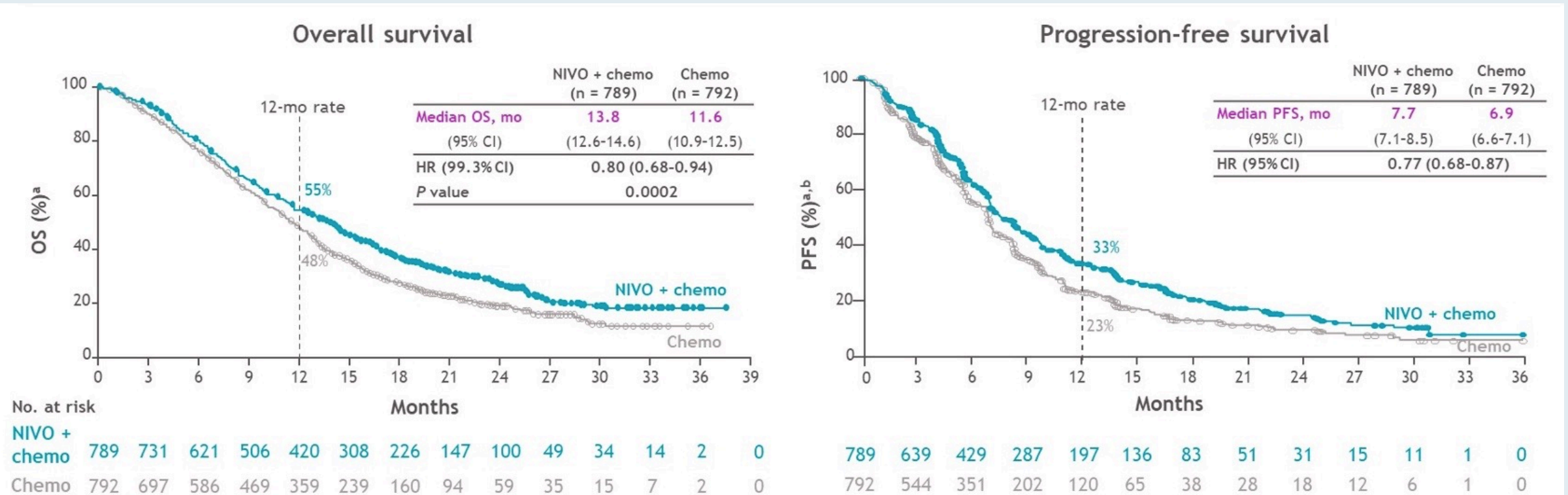
First-line nivolumab plus chemotherapy vs chemotherapy in advanced gastric cancer/gastroesophageal junction cancer/esophageal adenocarcinoma: expanded efficacy and safety data from CheckMate 649

Markus Moehler,¹ Kohei Shitara,² Marcelo Garrido,³ Pamela Salman,⁴ Lin Shen,⁵ Lucjan Wyrwicz,⁶ Kensei Yamaguchi,⁷ Tomasz Skoczylas,⁸ Arinilda Campos Bragagnoli,⁹ Tianshu Liu,¹⁰ Michael Schenker,¹¹ Patricio Yanez,¹² Mustapha Tehfe,¹³ Mingshun Li,¹⁴ Dana Cullen,¹⁴ Samira Soleymani,¹⁴ Ming Lei,¹⁴ Hong Xiao,¹⁴ Yelena Y. Janjigian,¹⁵ Jaffer A. Ajani¹⁶

¹Johannes-Gutenberg University Clinic, Mainz, Germany; ²National Cancer Center Hospital East, Kashiwa, Japan; ³Clinica San Carlos de Apoquindo, Pontificia Universidad Católica, Chile; ⁴Fundación Arturo López Pérez, Providencia, Chile; ⁵Department of Gastrointestinal Oncology, Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education/Beijing), Peking University Cancer Hospital and Institute, Beijing, China; ⁶Klinika Onkologii i Radioterapii, Narodowy Instytut Onkologii, Warszawa, Poland; ⁷Cancer Institute Hospital of JFCR, Tokyo, Japan; ⁸II Klinika Chirurgii Ogólnej, Gastroenterologicznej i Nowotworów Układu Pokarmowego, Medical University of Lublin, Lublin, Poland; ⁹Fundacao Pio Xii Hosp Cancer De Barretos, Barretos, Brazil; ¹⁰Zhongshan Hospital Fudan University, Shanghai, China; ¹¹SF Nectarie Oncology Center, Craiova, Romania; ¹²Universidad de La Frontera, Temuco, Chile; ¹³Oncology Center - Centre Hospitalier de l'Universite de Montreal, Montreal, QC, Canada; ¹⁴Bristol Myers Squibb, Princeton, NJ; ¹⁵Memorial Sloan Kettering Cancer Center and Weill Cornell Medical College, New York, NY; ¹⁶The University of Texas MD Anderson Cancer Center, Houston, TX

Abstract Number 4002

CheckMate 649 Dual Primary Endpoints: PFS and OS



- Superior OS benefit and clinically meaningful PFS improvement in all randomized patients with NIVO + chemo vs chemo
- Median OS with NIVO + chemo vs chemo in patients with PD-L1 CPS \geq 5 was 14.4 vs 11.1 months and median PFS was 7.7 vs 6.0 months¹

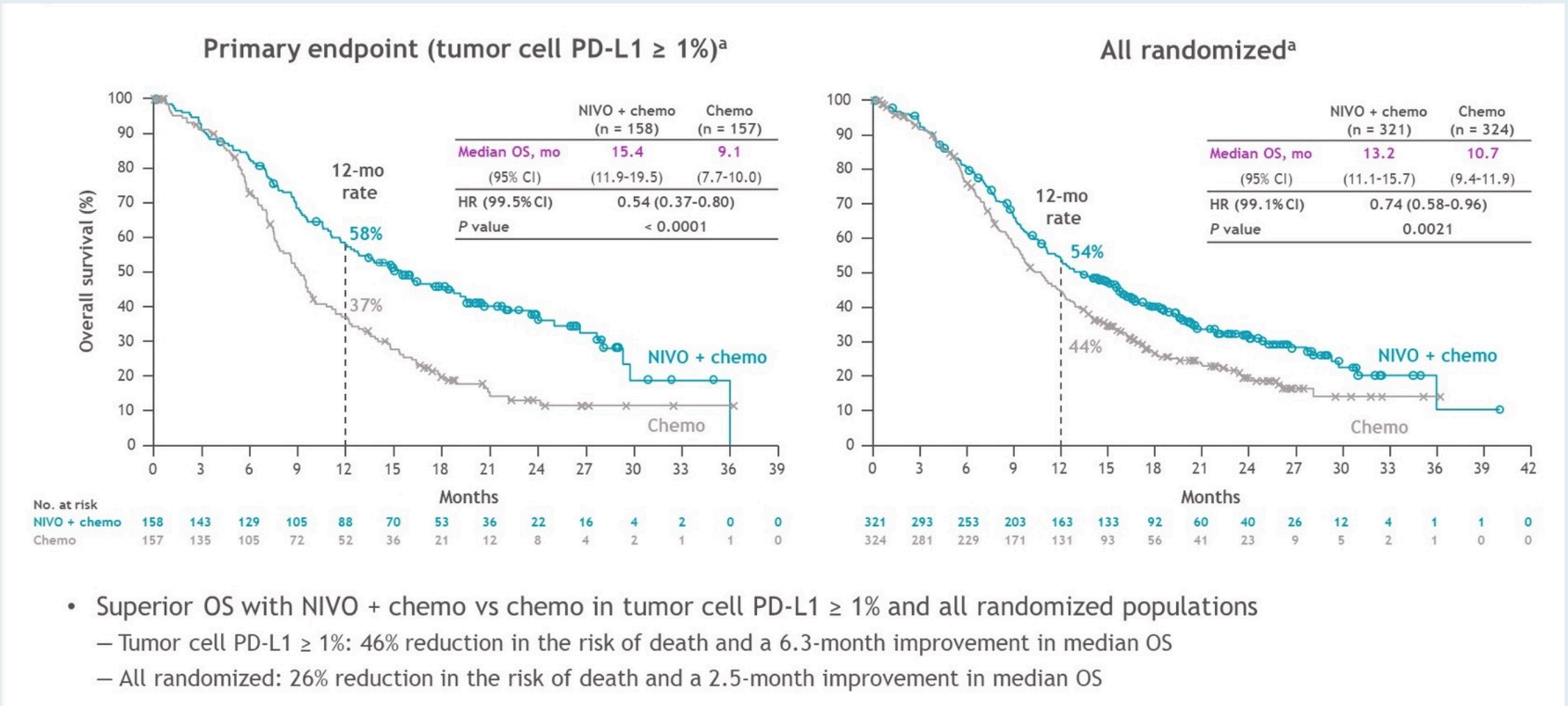
Nivolumab plus ipilimumab or nivolumab plus chemotherapy versus chemotherapy as first-line treatment for advanced esophageal squamous cell carcinoma: first results of the CheckMate 648 study

Ian Chau,¹ Yuichiro Doki,² Jaffer A. Ajani,³ Jianming Xu,⁴ Lucjan Wyrwicz,⁵ Satoru Motoyama,⁶ Takashi Ogata,⁷ Hisato Kawakami,⁸ Chih-Hung Hsu,⁹ Antoine Adenis,¹⁰ Farid el Hajbi,¹¹ Maria Di Bartolomeo,¹² Maria Ignez Braghiroli,¹³ Eva Holtved,¹⁴ Ioannis Xynos,¹⁵ Xuan Liu,¹⁵ Ming Lei,¹⁵ Kaoru Kondo,¹⁵ Ken Kato,¹⁶ Yuko Kitagawa¹⁷

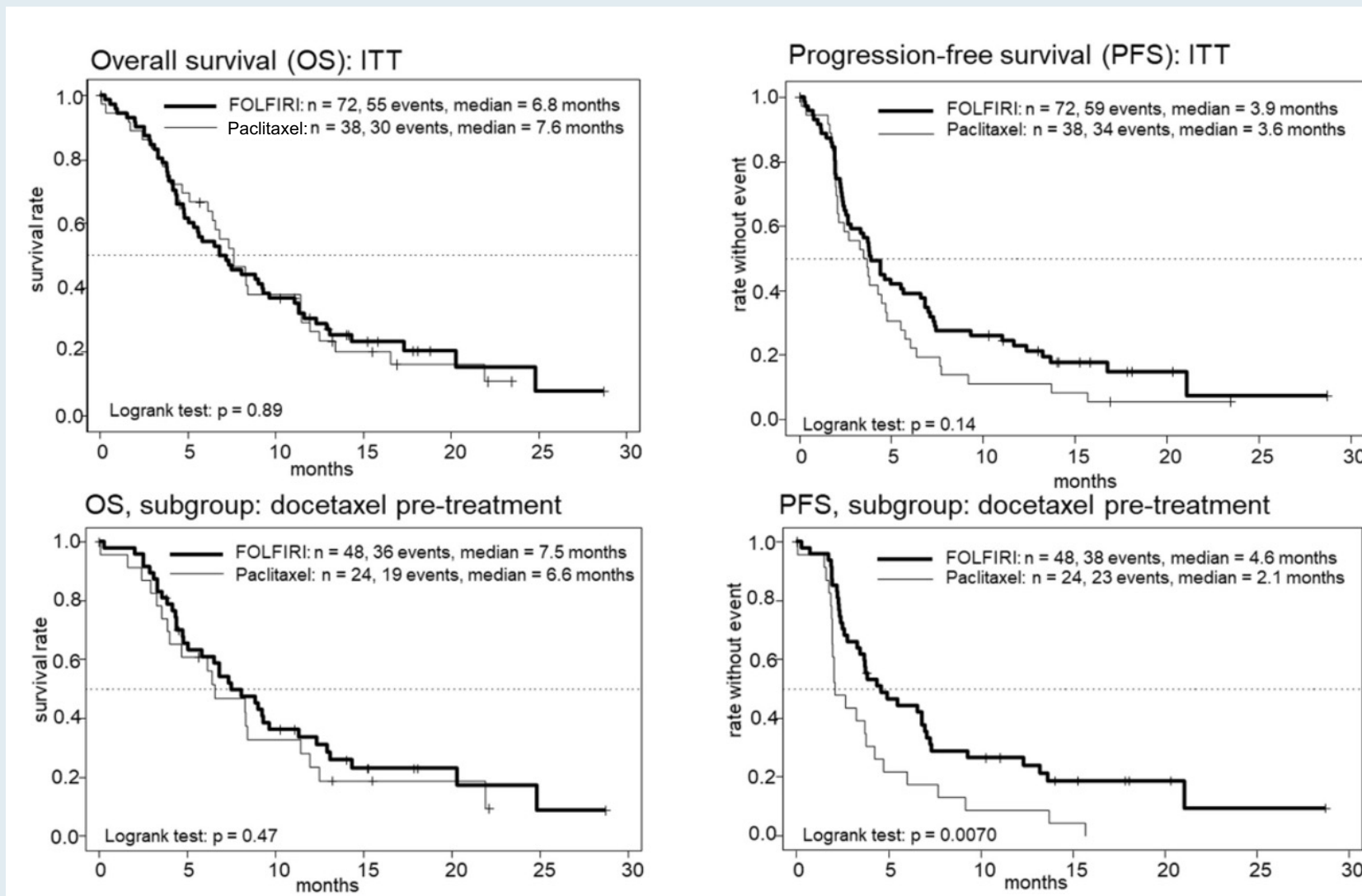
¹Royal Marsden Hospital, London & Surrey, UK; ²Osaka University Graduate School of Medicine, Osaka, Japan; ³The University of Texas MD Anderson Cancer Center, Houston, TX; ⁴Affiliated Hospital Cancer Center, Academy of Military Medical Sciences, Beijing, China; ⁵Klinika Onkologii i Radioterapii, Narodowy Instytut Onkologii, Warszawa, Poland; ⁶Akita University Hospital, Akita, Japan; ⁷Kanagawa Cancer Center, Kanagawa, Japan; ⁸Kindai University Faculty of Medicine, Osakasayama, Japan; ⁹National Taiwan University Hospital, Taipei, Taiwan; ¹⁰Institut du Cancer de Montpellier, Montpellier, France; ¹¹Centre Oscar Lambret, Lille, France; ¹²Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; ¹³Institute of Cancer of São Paulo, University of São Paulo, São Paulo, Brazil; ¹⁴Odense University Hospital, Odense, Denmark; ¹⁵Bristol Myers Squibb, Princeton, NJ; ¹⁶National Cancer Center Hospital, Tokyo, Japan; ¹⁷Keio University School of Medicine, Tokyo, Japan

Abstract Number LBA4001

CheckMate 648: Overall Survival for Patients with PD-L1 $\geq 1\%$ (Primary Endpoint Along with PFS in PD-L1 $\geq 1\%$) and in ITT Population



Phase II RAMIRIS Trial of Second-Line Ramucirumab with FOLFIRI: Patients with Advanced or Metastatic Gastroesophageal Adenocarcinoma with or without Prior Docetaxel



FDA Approves Trastuzumab Deruxtecan for HER2-Positive Gastric Adenocarcinomas

Press Release – January 15, 2021

“On January 15, 2021, the Food and Drug Administration approved fam-trastuzumab deruxtecan-nxki for adult patients with locally advanced or metastatic HER2-positive gastric or gastroesophageal (GEJ) adenocarcinoma who have received a prior trastuzumab-based regimen.

Efficacy was evaluated in a multicenter, open-label, randomized trial (DESTINY-Gastric01, NCT03329690) in patients with HER2-positive locally advanced or metastatic gastric or GEJ adenocarcinoma who had progressed on at least two prior regimens, including trastuzumab, a fluoropyrimidine- and a platinum-containing chemotherapy. A total of 188 patients were randomized (2:1) to receive fam-trastuzumab deruxtecan-nxki 6.4 mg/kg intravenously every 3 weeks or physician’s choice of either irinotecan or paclitaxel monotherapy.”

Trastuzumab deruxtecan (T-DXd; DS-8201) in patients with human epidermal growth factor receptor 2–positive advanced gastric cancer or gastroesophageal junction adenocarcinoma: final overall survival results from a randomized, multicenter, open-label, phase 2 study (DESTINY-Gastric01)

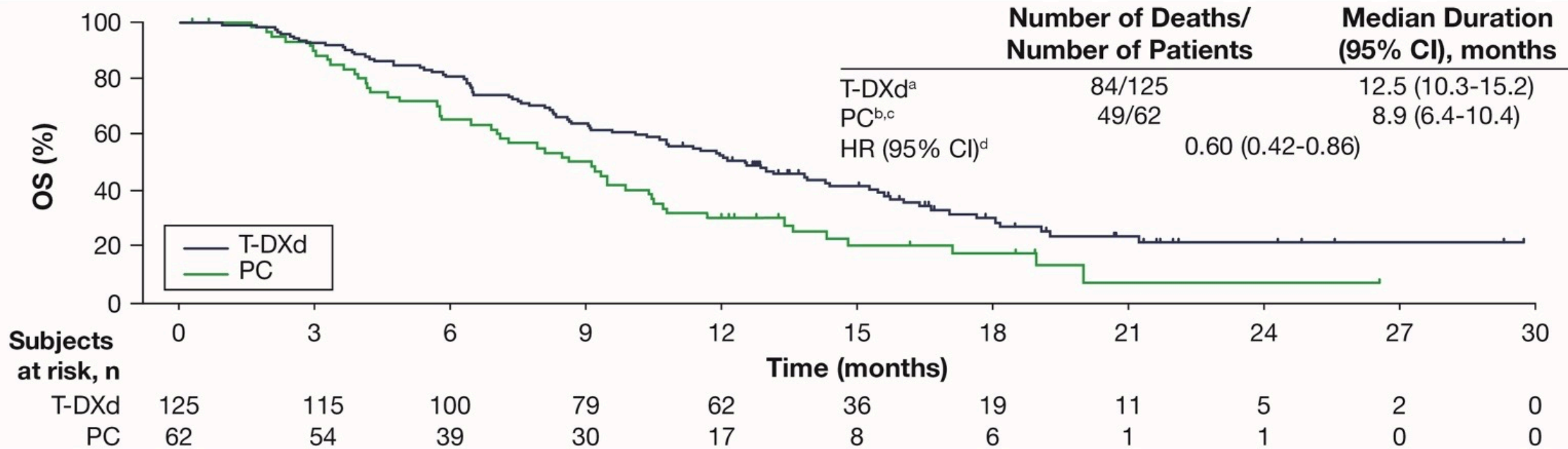
Kensei Yamaguchi

The Cancer Institute Hospital of JFCR, Tokyo, Japan
June 2021

ON BEHALF OF THE DESTINY-Gastric01 INVESTIGATORS

Additional authors: Yung-Jue Bang, Satoru Iwasa, Naotoshi Sugimoto, Min-Hee Ryu, Daisuke Sakai, Hyun Cheol Chung, Hisato Kawakami, Hiroshi Yabusaki, Jeeyun Lee, Kaku Saito, Yoshinori Kawaguchi, Takahiro Kamio, Akihito Kojima, Masahiro Sugihara, Kohei Shitara

DESTINY-Gastric01: Final Overall Survival Analysis



As in the primary analysis (101 OS events; 54.0% maturity), in this updated analysis (133 OS events; 71.1% maturity), T-DXd showed superior antitumor activity compared to PC

DESTINY-Gastric01: Selected Adverse Events

Preferred Term, %	T-DXd n = 125			PC Overall n = 62		
	Grade			Grade		
	Any	3	4	Any	3	4
Neutrophil count decreased ^b	64.8	38.4	12.8	35.5	16.1	8.1
Nausea	63.2	5.6	0	46.8	1.6	0
Decreased appetite	60.8	16.8	0	45.2	12.9	0
Anemia ^c	57.6	38.4	0	30.6	21.0	1.6
Platelet count decreased ^d	40.0	9.6	1.6	6.5	1.6	1.6
White blood cell count decreased ^e	38.4	20.8	0	35.5	8.1	3.2

DESTINY-Gastric01 AEs of Special Interest: Interstitial Lung Disorder

- 16 patients (12.8%) had T-DXd-related ILD, as determined by an independent adjudication committee
 - There were 13 grade 1 or 2, two grade 3, one grade 4, and no grade 5 events
 - There were four ILD events since the primary analysis; one grade 1 and three grade 2
 - Among the 16 total ILD events, the median time to first onset was 102.5 days (range, 36-638 days)
- There was one T-DXd-related death from pneumonia (non-ILD), as reported in the primary analysis

DESTINY-Gastric01: Exploratory Biomarker Analysis of Overall Survival in HER2-Positive or HER2-Low Advanced Gastric or GEJ Cancer

Exploratory Biomarker in Primary HER2-Positive Cohort	Median Overall Survival
Plasma HER2 amplification	
Not Amplified	12.1 mo
Amplified	13.0 mo
Plasma HER2 copy number*	
Above 6.0	21.2 mo
Below 6.0	12.0 mo
Exploratory Biomarker in Exploratory HER2-Low Cohort	
Plasma HER2 extracellular domain**	
Above 11.6 ng/mL	10.1 mo
Below 11.6 ng/mL	4.3 mo

*An exploratory cutoff (copy number = 6.0) value was determined, which minimized p-value, estimated by log-rank test. Below 6.0 includes patients without amplification; **An exploratory cutoff value of 11.6 ng/mL in exploratory cohorts was determined, which minimized p-value, estimated by log-rank test.

FDA Grants Accelerated Approval to Pembrolizumab with Trastuzumab and Chemotherapy as First-Line Therapy for HER2-Positive Gastric Cancer

Press Release – May 5, 2021

“On May 5, 2021, the Food and Drug Administration granted accelerated approval to pembrolizumab in combination with trastuzumab, fluoropyrimidine- and platinum-containing chemotherapy for the first-line treatment of patients with locally advanced unresectable or metastatic HER2 positive gastric or gastroesophageal junction (GEJ) adenocarcinoma.

Approval was based on the prespecified interim analysis of the first 264 patients of the ongoing KEYNOTE-811 (NCT03615326) trial, a multicenter, randomized, double-blind, placebo-controlled trial in patients with HER2-positive advanced gastric or gastroesophageal junction (GEJ) adenocarcinoma who had not previously received systemic therapy for metastatic disease. Patients were randomized (1:1) to receive pembrolizumab 200 mg or placebo every 3 weeks, in combination with trastuzumab and either fluorouracil plus cisplatin or capecitabine plus oxaliplatin.

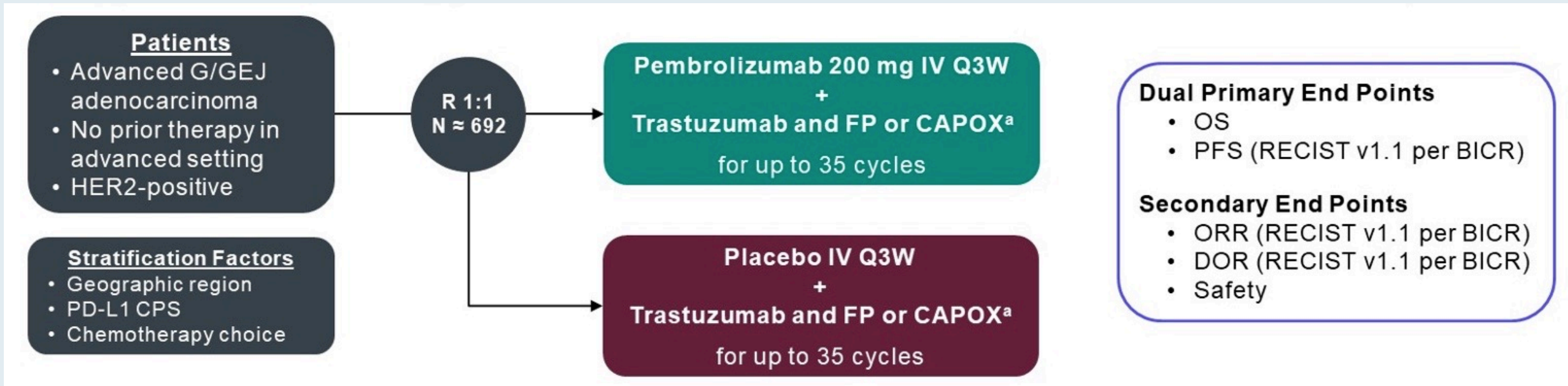
The main efficacy measure for this analysis was overall response rate (ORR) assessed by blinded independent review committee. The ORR was 74% in the pembrolizumab arm and 52% in the placebo arm (one-sided p-value < 0.0001, statistically significant). The median duration of response (DoR) was 10.6 months for patients treated with pembrolizumab and 9.5 months for those in the placebo arm.”

Pembrolizumab Plus Trastuzumab and Chemotherapy for HER2+ Metastatic Gastric or Gastroesophageal Junction Cancer: Initial Findings of the Global Phase 3 KEYNOTE-811 Study

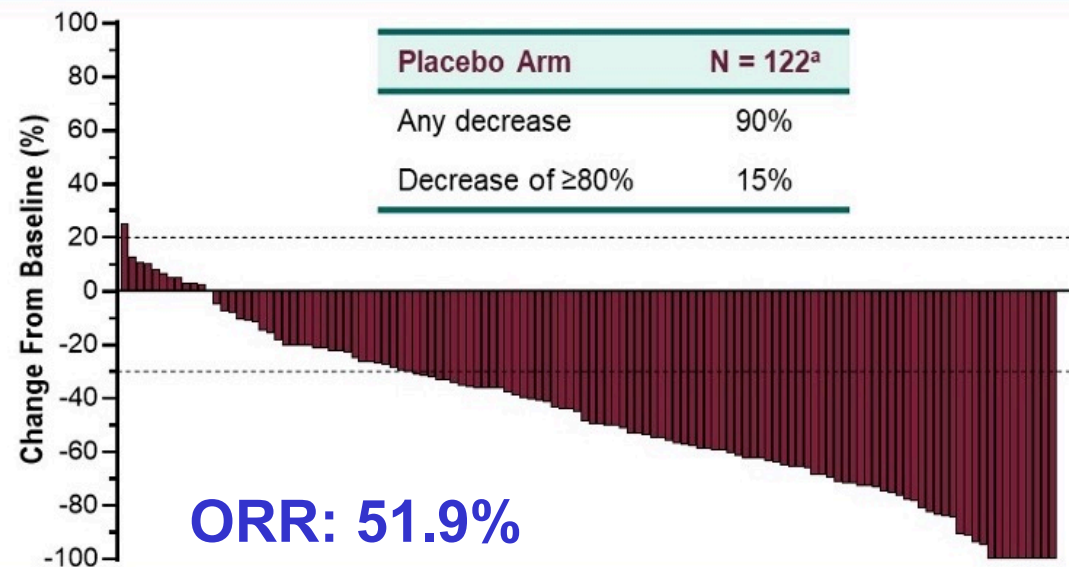
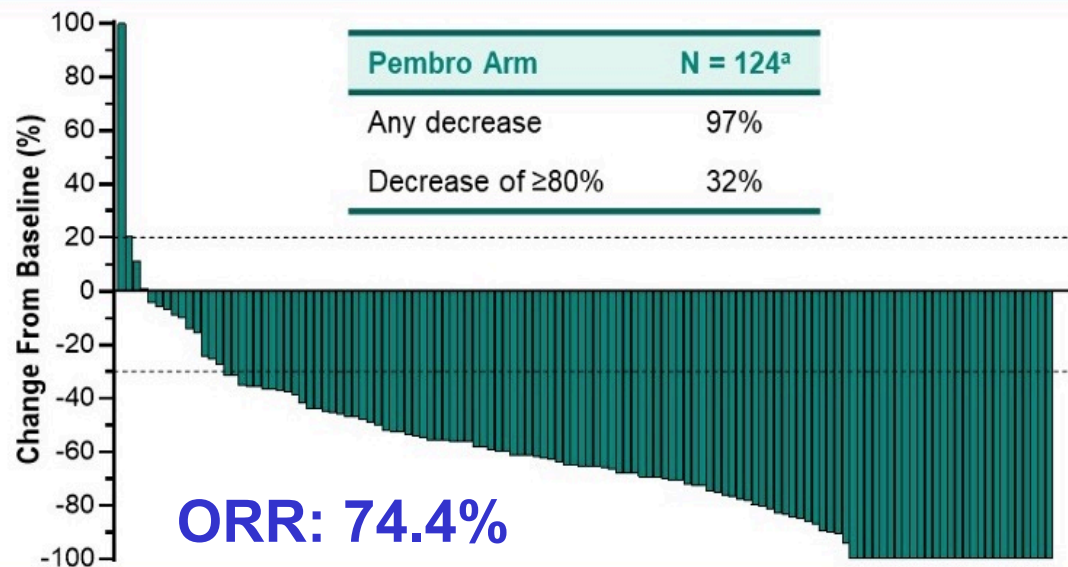
Yelena Y. Janjigian,¹ Akihito Kawazoe,² Patricio Yañez,³ Suxia Luo,⁴ Sara Lonardi,⁵ Oleksii Kolesnik,⁶ Olga Barajas,⁷ Yuxian Bai,⁸ Lin Shen,⁹ Yong Tang,¹⁰ Lucjan S. Wyrwicz,¹¹ Kohei Shitara,² Shukui Qin,¹² Eric Van Cutsem,¹³ Josep Taberero,¹⁴ Lie Li,¹⁵ Chie-Schin Shih,¹⁵ Pooja Bhagia,¹⁵ Hyun Cheol Chung,¹⁶ on behalf of the KEYNOTE-811 Investigators

¹Memorial Sloan Kettering Cancer Center, New York, NY, USA; ²National Cancer Center Hospital East, Kashiwa, Japan; ³Universidad de La Frontera, James Lind Cancer Research Center, Temuco, Chile; ⁴Henan Cancer Hospital, the Affiliated Cancer Hospital of Zhengzhou University, Zhengzhou, China; ⁵Istituto Oncologico Veneto IOV-IRCCS, Padova, Italy; ⁶Medical Center “Oncolife”, Zaporizhzhia, Ukraine; ⁷Arturo López Pérez Foundation, Santiago, Chile; ⁸Harbin Medical University Cancer Hospital, Harbin, China; ⁹Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education/Beijing), Peking University Cancer Hospital & Institute, Beijing, China; ¹⁰Cancer Hospital Affiliated to Xinjiang Medical University, Xinjiang, China; ¹¹Maria Skłodowska-Curie Memorial Cancer Center and Institute of Oncology, Warsaw, Poland; ¹²Cancer Center of People’s Liberation Army, Nanjing, China; ¹³University Hospitals Gasthuisberg and KU Leuven, Leuven, Belgium; ¹⁴Vall d’Hebron Hospital Campus and Institute of Oncology (VHIO), IOB-Quiron, UVic-UCC, Barcelona, Spain; ¹⁵Merck & Co., Inc., Kenilworth, NJ, USA; ¹⁶Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, South Korea

KEYNOTE-811 Phase III Study Design



KEYNOTE-811: Confirmed Response at First Interim Analysis



Hepatocellular Carcinoma

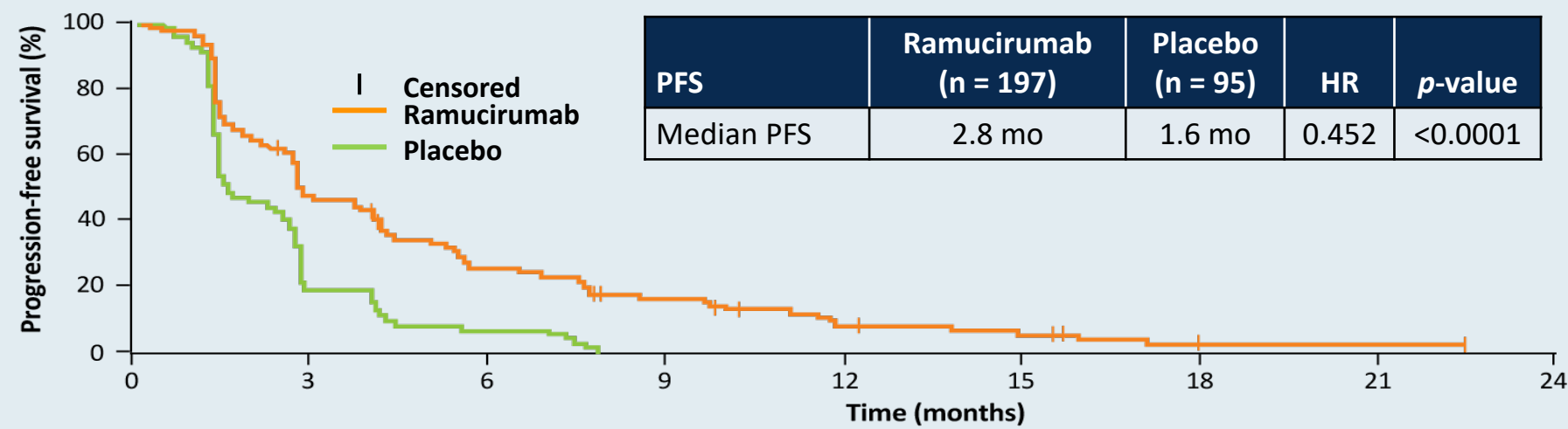
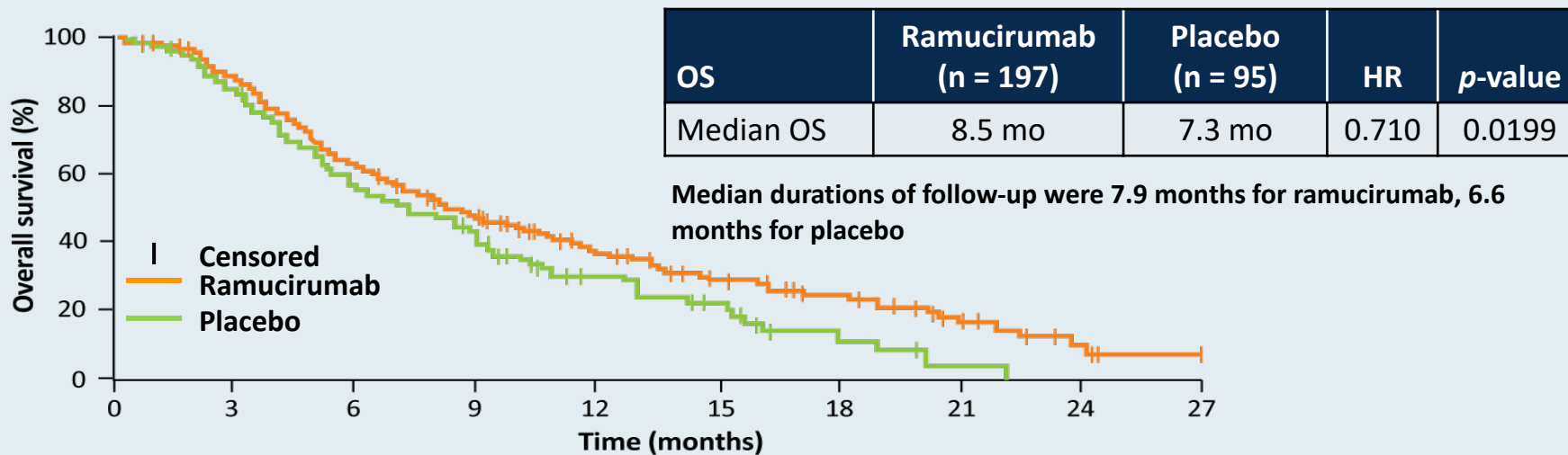


Ramucirumab after sorafenib in patients with advanced hepatocellular carcinoma and increased α -fetoprotein concentrations (REACH-2): a randomised, double-blind, placebo-controlled, phase 3 trial

*Andrew X Zhu, Yoon-Koo Kang, Chia-Jui Yen, Richard S Finn, Peter R Galle, Josep M Llovet, Eric Assenat, Giovanni Brandi, Marc Pracht, Ho Yeong Lim, Kun-Ming Rau, Kenta Motomura, Izumi Ohno, Philippe Merle, Bruno Daniele, Dong Bok Shin, Guido Gerken, Christophe Borg, Jean-Baptiste Hiriart, Takuji Okusaka, Manabu Morimoto, Yanzhi Hsu, Paolo B Abada, Masatoshi Kudo, for the REACH-2 study investigators**

Lancet Oncol 2019;20(2):282-96.

REACH-2: A Phase III Trial of Ramucirumab After Sorafenib for Patients with Advanced HCC and Increased AFP



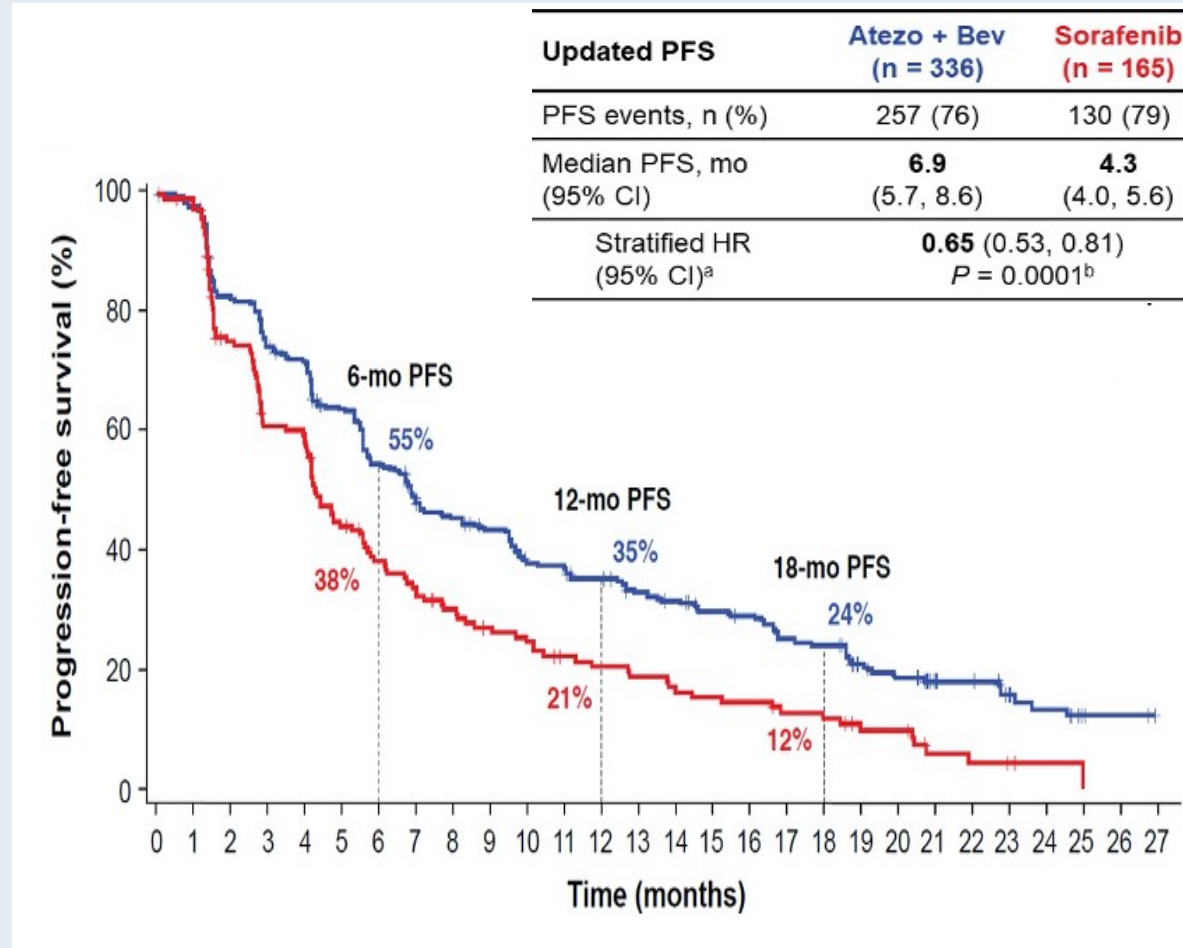
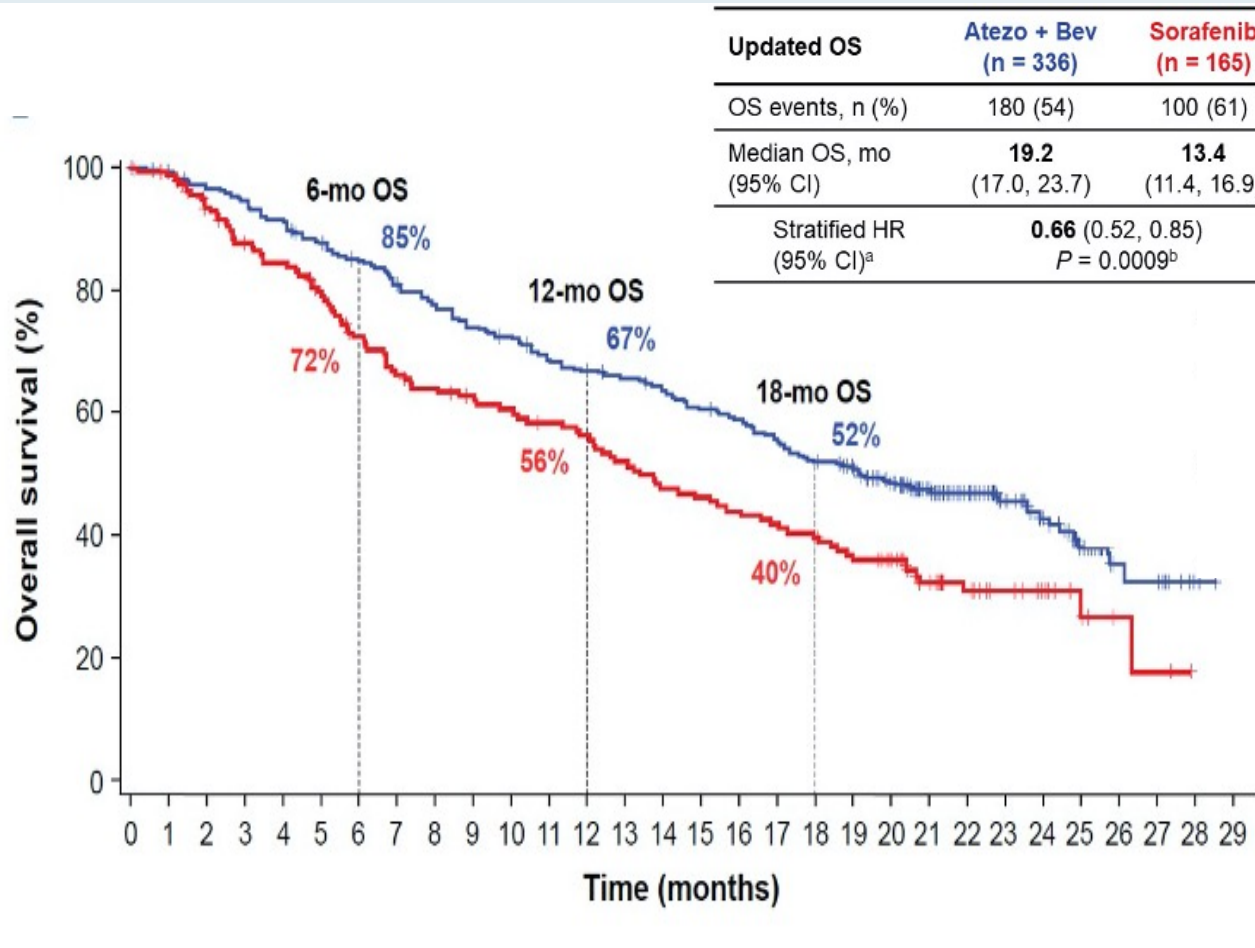
Grade ≥3 AEs associated with ramucirumab included hypertension and hyponatremia.

IMbrave150: Updated Overall Survival (OS) Data from a Global, Randomized, Open-Label Phase III Study of Atezolizumab (atezo) + Bevacizumab (bev) versus Sorafenib (sor) in Patients (pts) with Unresectable Hepatocellular Carcinoma (HCC)

Finn RS et al.

Gastrointestinal Cancers Symposium 2021;Abstract 267.

IMbrave150: Updated OS and PFS (Median Follow-Up = 15.6 Months)

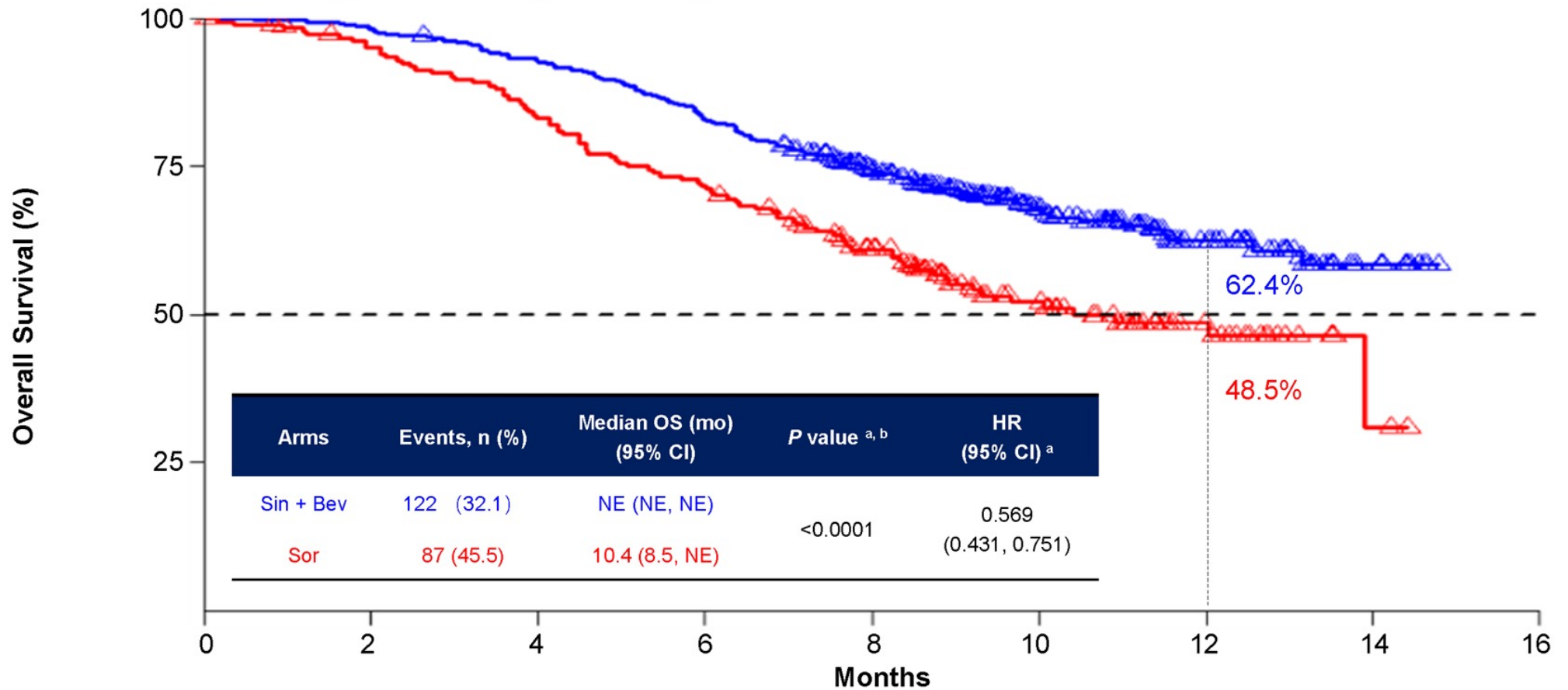


Sintilimab plus Bevacizumab Biosimilar vs Sorafenib as First-Line Treatment for Advanced Hepatocellular Carcinoma (ORIENT-32)

Ren Z et al.

ESMO Asia 2020;Abstract LBA2.

ORIENT-32 Coprimary Endpoint: Overall Survival



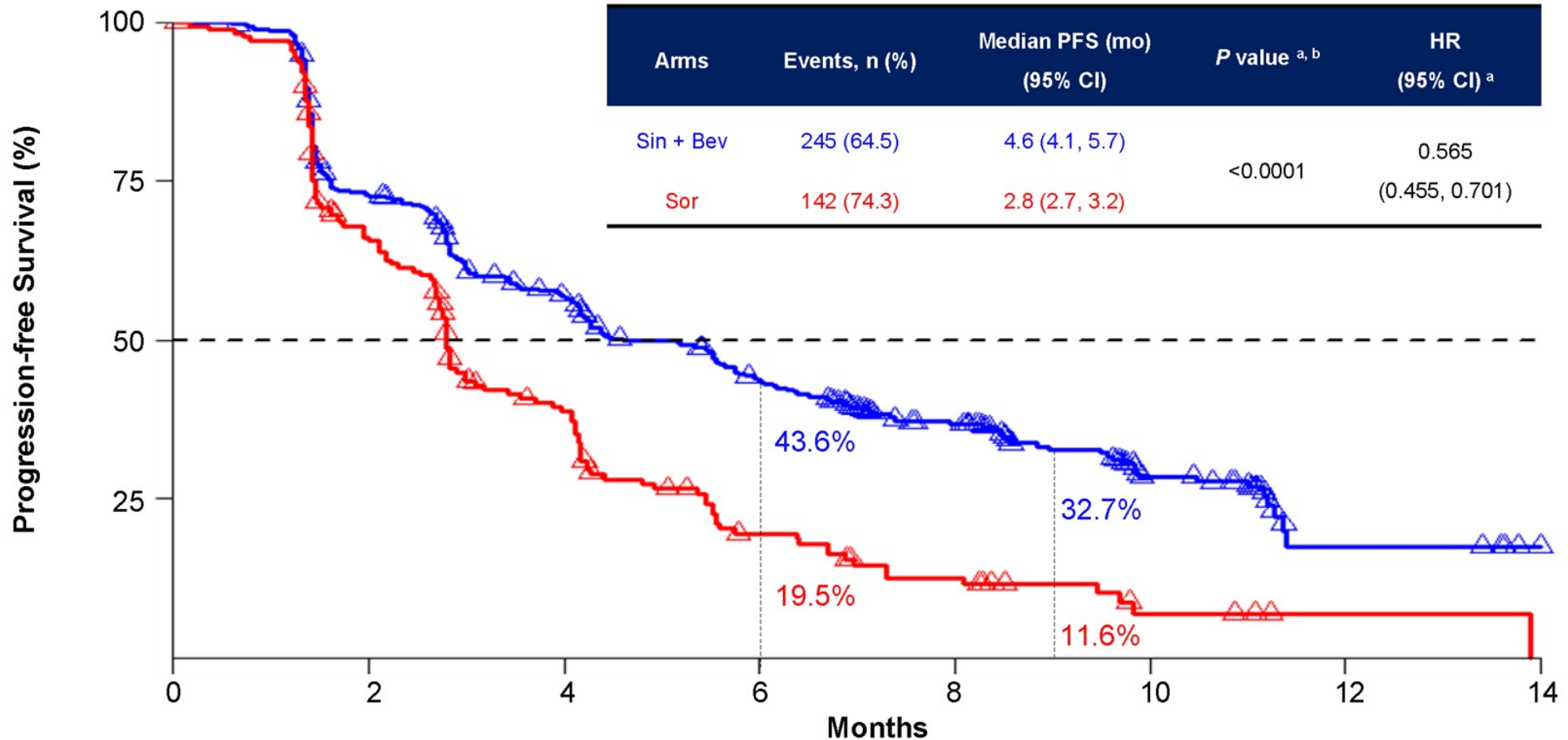
Number at risk

	0	2	4	6	8	10	12	14	16
Sin + Bev	380	372	351	314	235	126	57	11	0
Sor	191	175	153	132	95	50	22	2	0

NE, not evaluable; ^a, HR and P value were calculated with stratified Cox model and log rank test, and were stratified by MVI and/or EHS (yes vs no), baseline AFP (< 400 vs ≥400 ng/mL) and ECOG PS (0 vs 1); ^b, the two-sided P value boundary based on 209 events is 0.0035. Data cutoff, 15 Aug 2020; median survival follow-up, 10.0 months.

The superior OS benefit with sintilimab plus bev biosimilar was generally consistent across all subgroups

ORIENT-32 Coprimary Endpoint: Progression-Free Survival



Number at risk

Months	0	2	4	6	8	10	12	14
Sin + Bev	380	267	197	144	89	37	7	0
Sor	191	111	55	24	13	4	1	0

^a, HR and P value were calculated with stratified Cox model and log rank test, and were stratified by MVI and/or EHS (yes vs no), baseline AFP (< 400 vs ≥400 ng/mL) and ECOG PS (0 vs 1); ^b, the two-sided P value boundary is 0.002. Data cutoff, 15 Aug 2020; median survival follow-up, 10.0 months.

The superior PFS benefit with sintilimab plus bev biosimilar was generally consistent across all subgroups

Meet The Professor

Optimizing the Selection and Sequencing of Therapy for Patients with Renal Cell Carcinoma

Monday, October 11, 2021

5:00 PM – 6:00 PM ET

Faculty

Elizabeth R Plimack, MD, MS

Moderator

Neil Love, MD

Thank you for joining us!

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