Year in Review: Clinical Investigator Perspectives on the Most Relevant New Data Sets and Advances in Oncology

Breast Cancer

Thursday, January 6, 2022 5:00 PM – 6:00 PM ET

Faculty Harold J Burstein, MD, PhD Professor Peter Schmid, FRCP, MD, PhD



YiR Breast Cancer Faculty



Harold J Burstein, MD, PhD Institute Physician, Dana-Farber Cancer Institute Professor of Medicine, Harvard Medical School Boston, Massachusetts



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Commercial Support

This activity is supported by educational grants from AstraZeneca Pharmaceuticals LP, Daiichi Sankyo Inc, Exact Sciences Inc, Gilead Sciences Inc, Novartis, Puma Biotechnology Inc and Seagen Inc.



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, BeyondSpring Pharmaceuticals Inc, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Coherus BioSciences, Daiichi Sankyo Inc, Eisai Inc, EMD Serono 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, Mersana Therapeutics Inc, Natera Inc, Novartis, Novocure Inc, Oncopeptides, 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, Verastem Inc and Zymeworks Inc.



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



Dr Burstein — Disclosures

No relevant conflicts of interest to disclose.



Prof Schmid — Disclosures

Consulting Agreements	AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Boehringer Ingelheim Pharmaceuticals Inc, Celgene Corporation, Eisai Inc, Merck, Novartis, Pfizer Inc, Puma Biotechnology Inc, Roche Laboratories Inc
Contracted Research	Astellas, AstraZeneca Pharmaceuticals LP, Genentech, a member of the Roche Group, Medivation Inc, a Pfizer Company, Novartis, OncoGenex Pharmaceuticals Inc, Roche Laboratories Inc
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ONCOLOGY TODAY WITH DR NEIL LOVE Management of HER2-Low Breast Cancer



DR IAN KROP DANA-FARBER CANCER INSTITUTE









Dr Ian Krop Management of HER2-Low Oncology Today with Dr Neil Love —

(15) (30)

Year in Review: Clinical Investigator Perspectives on the Most Relevant New Data Sets and Advances in Oncology Targeted Therapy for Non-Small Cell Lung Cancer

> Tuesday, January 11, 2022 5:00 PM – 6:00 PM ET

Faculty John V Heymach, MD, PhD Zofia Piotrowska, MD, MHS



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

Wednesday, January 12, 2022 6:00 PM – 7:00 PM ET

> Faculty Tiffany A Traina, MD



Year in Review: Clinical Investigator Perspectives on the Most Relevant New Data Sets and Advances in Oncology Immunotherapy and Other Nontargeted Approaches for Lung Cancer

> Thursday, January 13, 2022 5:00 PM – 6:00 PM ET

Faculty Corey J Langer, MD Anne S Tsao, MD, MBA



Beyond the Guidelines: Clinical Investigator Perspectives on the Management of Colorectal Cancer (Part 1 of a 3-Part Series)

> Wednesday, January 19, 2022 10:15 PM – 11:45 PM ET

Faculty

Cathy Eng, MD Christopher Lieu, MD Alan P Venook, MD

Moderator Kristen K Ciombor, MD, MSCI



Beyond the Guidelines: Clinical Investigator Perspectives on the Management of Gastroesophageal Cancers (Part 2 of a 3-Part Series)

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> Moderator Tanios Bekaii-Saab, MD



Thank you for joining us!

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



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- DESTINY-Breast03
- HER2CLIMB
- SUMMIT, ExteNET, CONTROL

Module 2: Triple-Negative Breast Cancer

- ASCENT, TROPION-PanTumor01
- KEYNOTE-522
- OlympiA, NEOTALA

Module 3: ER-Positive Breast Cancer

- RxPONDER
- monarchE
- SOLAR-1, BYLieve
- EMERALD



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



September 22, 2021







Self-Assessment Questions

As second-line treatment for metastatic HER2-positive breast cancer, the overall response rate observed with T-DM1 was 34%. What is the response rate with trastuzumab deruxtecan in the same setting?

- a. 35%
- b. 50%
- c. 60%
- d. 70%
- e. 80%
- f. I'm not sure



Self-Assessment Questions

Outside of a clinical trial, what is your most likely third-line treatment for metastatic HER2-positive breast cancer after first-line taxane/pertuzumab/trastuzumab and second-line trastuzumab deruxtecan?

Objective response rates have been observed with trastuzumab deruxtecan in patients with IHC 0, FISH-negative breast cancer.

- a. Agree
- b. Disagree
- c. I'm not sure



Self-Assessment Questions

Have you administered adjuvant endocrine therapy in combination with anti-HER2 treatment without chemotherapy in older patients or those with comorbidities?

- a. Yes, frequently
- b. Yes, occasionally
- c. No

The drug-to-antibody ratio of trastuzumab deruxtecan is approximately double that of T-DM1.

- a. Agree
- b. Disagree
- c. I'm not sure


The use of postadjuvant neratinib in patients with HER2-positive, ER/PR-positive tumors was associated with a reduced incidence of brain metastases.

- a. Agree
- b. Disagree
- c. I'm not sure

With dose-escalation and preemptive antidiarrheal medications, most patients are able to tolerate postadjuvant neratinib.

- a. Agree
- b. Disagree
- c. I'm not sure



HER2-targeting Antibody Drug Conjugates (ADCs)



ADC Attributes	T-DM1 ³⁻⁵	T-DXd ^{1-4,a}
Payload MoA	Anti- microtubule	Topoisomerase I inhibitor
Drug-to-antibody ratio	~3.5:1	~8:1
Tumor-selective cleavable linker?	Νο	Yes
Evidence of bystander anti-tumor effect?	Νο	Yes

Courtesy of Professor Peter Schmid, FRCP, MD, PhD

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San Antonio Breast Cancer Symposium®, December 7-10, 2021

Trastuzumab-Deruxtecan (T-DXd) in HER2+ MBC

Destiny-Breast03 Trial



Study Population:

- ER+ 51%, HR- 49%
- Brain metastases, 22%
- Visceral disease, 70%
- 1L, 10%; 2L, 39%, 3L+, 51%
- Pertuzumab, 61%; HER2 TKI, 15%

Interim analysis for PFS (data cutoff: May 21, 2021)

- Efficacy boundary for superiority: P < 0.000204 (245 events)
- IDMC recommendation to unblind study (July 30, 2021)
 Interim analysis for OS: boundary for efficacy: *P* < 0.000265 (86 events)

Cortes, ESMO 2021

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Destiny-Breast03: Progression-free Survival

Primary Endpoint: PFS by BICR

PFS in Subgroups



Il patients			H		
Iormone Receptor	Positive (minimi=2272)		-		
oldius	Negative Nønine⊭2248)	I	IB-I		
Prior Pertuzumab	Yes (n = 32200)		-		
reatment	No (n = 210(#4)4)		-		
/isceral Disease	Yes (n = 3x843)		H		
	No (n = 14(0))		••••	 	
Prior Lines of	0-1 (n = 258)		H H H	i I	
nerapy	≥2 (n = 266)∭	I	•	i	
Brain Metastases	Yes (n = 1k1144)				
	No (n = 4₩@)		6 4		
		_			
	(0.0	0.5	1.0	1.5

HR (T-DXd vs T-DM1)

Courtesy of Professor Peter Schmid, FRCP, MD, PhD

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Destiny-Breast03: Overall Survival & Response



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DESTINY-Breast03: PFS and Overall Response Rate (ORR) with T-DXd versus T-DM1 by Subgroup

	PFS by BICR, HR (95% CI)	Absolute ORR difference T-DXd, T-DM1 (95% CI)			
All patients (N = 524)	0.28 (0.22-0.37)	45.5 (37.6-53.4)			
Hormone receptor					
Positive (n = 272)	0.32 (0.22-0.46)	47.3 (36.1-58.4)			
Negative (n = 248)	0.30 (0.20-0.44)	43.2 (31.5-55.0)			
Prior pertuzumab					
Yes (n = 320)	0.31 (0.22-0.43)	46.7 (36.5-56.9)			
No (n = 204)	0.30 (0.19-0.47)	43.6 (30.5-56.7)			
Prior lines of therapy		·			
0-1 (n = 258)	0.33 (0.23-0.48)	39.3 (27.3-51.2)			
≥2 (n = 266)	0.28 (0.19-0.41)	51.6 (40.9-62.4)			
Visceral disease					
Yes (n = 384)	0.28 (0.21-0.38)	48.3 (39.1-57.6)			
No (n = 140)	0.32 (0.17-0.58)	39.1 (23.6-54.6)			
Brain metastases at baseline					
Yes (n = 82)	0.25 (0.13-0.45)	46.9 (25.6-68.3)			
No (n = 442)	0.30 (0.22-0.40)	45.5 (36.9-54.1)			



Hurvitz S et al. SABCS 2021; Abstract GS3-01.

San Antonio Breast Cancer Symposium[®], December 7-10, 2021

Efficacy of T-DXd and Tucatinib against brain metastases

T-DXd (Destiny Breast03): Brain Metastases at Baseline



T-DXd (Destiny Breast03): Intracranial response(BICR)



Tucatinib (HER2Climb): Brain Metastases Subgroup

n = 291 (48% of ITT) Stable: Treated & stable (40.2%), Active: Treated & progressing (37.1%), untreated (22.7%).



Courtesy of Professor Peter Schmid, FRCP, MD, PhD

Hurvitz. SABCS 2021. Lin. JCO 2021

Updated Results of Tucatinib vs Placebo Added to Trastuzumab and Capecitabine for Patients with Previously Treated HER2+ Metastatic Breast Cancer with Brain Metastases (HER2CLIMB)

Lin NU et al. SABCS 2021;Abstract PD4-04.



HER2CLIMB: OS for All Patients with Brain Metastases





Lin NU et al. SABCS 2021; Abstract PD4-04.

HER2CLIMB: OS for Patients with Active Brain Metastases





Lin NU et al. SABCS 2021; Abstract PD4-04.

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Evolution of HER2-targeted therapy for HER2 MBC



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Abstract GS4-10

Neratinib + fulvestrant + trastuzumab for hormone-receptor positive, HER2-mutant metastatic breast cancer, and neratinib + trastuzumab for HER2-mutant metastatic triple-negative disease: latest updates from the SUMMIT trial

Komal Jhaveri,¹ Haeseong Park,² James Waisman,³ Jonathan W. Goldman,⁴ Angel Guerrero-Zotano,⁵ Valentina Boni,⁶ Barbara Haley,⁷ Ingrid A. Mayer,⁸ Adam Brufsky,⁹ Eddy Yang,¹⁰ José A. García-Sáenz,¹¹ Francois-Clement Bidard,¹² John Crown,¹³ Bo Zhang,¹⁴ Aimee Frazier,¹⁴ Irmina Diala,¹⁴ Brian Barnett,¹⁴ Lisa D Eli,¹⁴ Hans Wildiers¹⁵

¹Memorial Sloan Kettering Cancer Center, New York, NY; ²Washington University School of Medicine, St. Louis, MO; ³City of Hope Comprehensive Cancer Center, Duarte, CA; ⁴UCLA, Santa Monica, CA; ⁵Fundación Instituto Valenciano de Oncología, Valencia, Spain; ⁶START Madrid-CIOCC, Hospital Universitario, Madrid Sanchinarro, Madrid, Spain; ⁷UT Southwestern Medical Center, Dallas, TX; ⁸Vanderbilt University Medical Center/Vanderbilt-Ingram Cancer Center, Nashville, TN; ⁹Magee-Womens Hospital of UPMC, Pittsburgh, PA; ¹⁰University of Alabama at Birmingham, Birmingham, AL; ¹¹Hospital Clínico San Carlos, Madrid, Spain; ¹²Institut Curie, St. Cloud, France; ¹³St. Vincent's University Hospital, Dublin, Ireland; ¹⁴Puma Biotechnology Inc.





SUMMIT: Neratinib, Fulvestrant and Trastuzumab for HR-Positive, HER2-Negative Metastatic Breast Cancer with a HER2 Mutation – All Patients

Characteristics	All N+F+T (n=33)	N+F (subset, prior CDK4/6i) (n=14)
Objective response (confirmed CR/PR) ^a , n (%)	14 (42.4)	4 (28.6)
CR	1 (3.0)	0
PR	13 (39.4)	4 (28.6)
Best overall response (confirmed or unconfirmed PR or CR), n (%)	18 (54.5)	4 (28.6)
Median DOR ^b , months (95% CI)	14.4 (6.4–NE)	NE
Clinical benefit ^c , n (%)	17 (51.5)	5 (35.7)
Median PFS, months (95% CI)	7.0 (4.2–12.7)	2.9 (1.7–11.9)
Median duration of treatment, months (range)	6.5 (0.7–22.1)	3.7 (0.5–48.3)



Improved Central Nervous System Outcomes in Patients with Early-Stage HER2-Positive Breast Cancer Who Receive Neratinib for the Recommended Duration: Findings from the Phase 3 ExteNET Trial

Holmes FH et al. SABCS 2021;Abstract P2-13-21.



ExteNET: CNS-DFS and Cumulative Incidence of CNS Events

	Ν		CNS-DFS rate at 5 years	
Population or subgroup	Neratinib	Placebo	Difference (%)	Hazard ratio
Intent-to-treat population	1,420	1,420	+ 1.1	0.73
Completed therapy	872	1,420	+ 1.2	0.70
ER-positive ≤1 year	670	664	+ 2.7	0.41
Completed therapy	402	664	+ 3.2	0.27
ER-positive ≤1 year no pCR	131	164	+ 6.4	0.24
Completed therapy	92	164	+ 6.9	0.16

	First site of CNS recurrence at 5 years					
	Ν		Events (n)		Cumulative incidence of CNS recurrence	
Population or subgroup	Neratinib	Placebo	Neratinib	Placebo	Neratinib	Placebo
Intent-to-treat population	1,420	1,420	16	23	1.3	1.8
Completed therapy	872	1,420	12	23	1.4	1.8
ER-positive ≤1 year	670	664	4	12	0.7	2.1
Completed therapy	402	664	3	12	0.8	2.1



Holmes FH et al. SABCS 2021; Abstract P2-13-21.

Final Findings from the CONTROL Trial of Diarrheal Prophylaxis or Neratinib Dose Escalation on Neratinib-Associated Diarrhea and Tolerability in Patients with HER2+ Early-Stage Breast Cancer

Chan S et al. SABCS 2021;Abstract P5-18-02.



CONTROL: Final Data for 2-Week (DE1) and 4-Week (DE2) Escalation Cohorts





Chan S et al. SABCS 2021; Abstract P5-18-02.

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Quality-of-life data from the OlympiA trial suggest a lack of significant adverse events with adjuvant olaparib.

- a. Agree
- b. Disagree
- c. I'm not sure

The pCR rate with a neoadjuvant PARP inhibitor in a patient with a BRCA mutation is...

- a. 10%
- b. 20%
- c. 50%
- d. >50%
- e. There are no data
- f. I'm not sure



Adjuvant olaparib is...

- a. More effective in ER-positive breast cancer than TNBC
- b. Less effective in ER-positive breast cancer than TNBC
- c. Equally effective in both

In the KEYNOTE-522 trial a benefit with pembrolizumab was seen in all patients regardless of PD-L1 status.

- a. Agree
- b. Disagree
- c. I'm not sure



In general, what is your usual approach to a patient with Stage III or higher-risk Stage II TNBC?

- a. KEYNOTE-522 regimen (neoadjuvant chemo/pembrolizumab → adjuvant pembrolizumab)
- b. KEYNOTE-522 neoadjuvant but no adjuvant if pCR
- c. Other



Questions About Sacituzumab Govitecan

What percent of patients benefit?

Is there a correlation between response and TROP-2 levels?

What are the tolerability issues?



(For physicians who have used sacituzumab govitecan for mTNBC) Think about the last patient in your practice with mTNBC to whom you administered sacituzumab govitecan for whom you have adequate follow-up. Did the patient derive antitumor benefit?

Yes, and sacituzumab govitecan was well-tolerated	51%
Yes, but sacituzumab govitecan was not well-tolerated	24%
No, but sacituzumab govitecan was well-tolerated	14%
No, and sacituzumab govitecan was not well-tolerated	11%

SABCS Satellite Symposium 2021 Audience Polling

San Antonio Breast Cancer Symposium®, December 7-10, 2021

Targets for Antibody-Drug Conjugates in TNBC



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FDA Grants Regular Approval to Sacituzumab Govitecan for Triple-Negative Breast Cancer Press Release: April 7, 2021

"The Food and Drug Administration granted regular approval to sacituzumab govitecan for patients with unresectable locally advanced or metastatic triple-negative breast cancer (mTNBC) who have received two or more prior systemic therapies, at least one of them for metastatic disease.

Efficacy and safety were evaluated in a multicenter, open-label, randomized trial (ASCENT; NCT02574455) conducted in 529 patients with unresectable locally advanced or mTNBC who had relapsed after at least two prior chemotherapies, one of which could be in the neoadjuvant or adjuvant setting, if progression occurred within 12 months. Patients were randomized (1:1) to receive sacituzumab govitecan, 10 mg/kg as an intravenous infusion, on days 1 and 8 of a 21-day (n = 267) cycle or physician's choice of single agent chemotherapy (n = 262)."

https://www.fda.gov/drugs/resources-information-approved-drugs/fda-grants-regular-approval-sacituzumab-govitecantriple-negative-breast-cancer



ASCENT: PFS (Overall Population)





Bardia A et al. N Engl J Med 2021;384:1529-41.

ASCENT: PFS and OS Among Patients without Brain Metastases







Bardia A et al. N Engl J Med 2021;384:1529-41.

ASCENT: OS for Young and Older Patients with mTNBC Treated with Sacituzumab Govitecan



 In patients aged ≥65 years, improvement in median OS with SG vs TPC treatment was comparable with that of the overall population (12.1 vs 6.7 months)¹



Kalinsky K et al. ASCO 2021; Abstract 1011.

ASCENT: Selected Adverse Events

	Patients (N = 108)					
Adverse event	Any grade	Grade 3	Grade 4			
Gastrointestinal disorders						
Nausea	67%	6%	0			
Diarrhea	62%	8%	0			
Vomiting	49%	6%	0			
Blood and lymphatic system disorders						
Neutropenia	64%	26%	16%			
Anemia	50%	11%	0			
Abnormal values						
Decrease white blood cell counts	21%	8%	3%			



Bardia A et al. *N Engl J Med* 2021;384:1529-41.

TROPION-PanTumor01 (TNBC Cohort): Antitumor Response with Dato-DXd by BICR





Krop I et al. SABCS 2021; Abstract GS1-05.

TROPION-PanTumor01 (TNBC Cohort): Treatment-Emergent Adverse Events in ≥15% of Patients



- Most common adverse events observed were nausea and stomatitis (predominantly grade 1-2)
- Low frequency of hematologic toxicity and diarrhea
- No cases adjudicated as drug-related ILD

Data cutoff: July 30, 2021



Krop I et al. SABCS 2021; Abstract GS1-05.

KEYNOTE-522 Study Design (NCT03036488)



• Carboplatin schedule (QW vs Q3W)

Neoadjuvant phase: starts from the first neoadjuvant treatment and ends after definitive surgery (post treatment included) **Adjuvant phase:** starts from the first adjuvant treatment and includes radiation therapy as indicated (post treatment included)

^aMust consist of at least 2 separate tumor cores from the primary tumor. ^bCarboplatin dose was AUC 5 Q3W or AUC 1.5 QW. ^cPaclitaxel dose was 80 mg/m² QW. ^dDoxorubicin dose was 60 mg/m² Q3W. ^eEpirubicin dose was 90 mg/m² Q3W. ^fCyclophosphamide dose was 600 mg/m² Q3W.

KEYNOTE-522: Statistically Significant and Clinically Meaningful EFS at IA4



^aHazard ratio (CI) analyzed based on a Cox regression model with treatment as a covariate stratified by the randomization stratification factors. ^bPrespecified *P*-value boundary of 0.00517 reached at this analysis. ^cDefined as the time from randomization to the data cutoff date of March 23, 2021.

No. at Risk

KEYNOTE-522: EFS by pCR (ypT0/Tis ypN0)



Data cutoff date: March 23, 2021.

No. at Risk

KEYNOTE-522: Overall Survival

No. at Risk



^aHazard ratio (CI) analyzed based on a Cox regression model with treatment as a covariate stratified by the randomization stratification factors. ^bPrespecified *P*-value boundary of 0.00086 not reached at this analysis. Data cutoff date: March 23, 2021.

OlympiA: adjuvant olaparib for BRCA1/2 breast cancer







Primary Endpoint: 3 year iDFS

- 85.9% vs 77.1% (8.8% difference)
- HR for disease or death 0.58 (99.5% CI 0.41 – 0.82) p<0.001

Secondary Endpoint: 3 year dDFS

- 87.5% vs 80.4% (7.1% difference)
- HR for distant disease or death 0.57 (99.5% CI 0.39 – 0.83) p<0.001

Secondary endpoint: OS

- Olaparib associated with fewer deaths (59 vs 86)
- HR for death 0.68 (99% CI 0.44 1.05) p=0.02

Tutt ANJ et al. N Engl J Med 2021;384:2394-2405
Neoadjuvant talazoparib in BRCA1/2 breast cancer

Patient Populations and Disposition



*Includes patients who completed surgical follow-up.

Presented By: Jennifer K. Litton

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Talazoparib

(N=61)

n (%)

61 (100.0)

16 (26.2)

45 (73.8)

49 (80.3)

0

49 (80.3)

58 (95.1)

58 (95.1)

55 (90.2)

2 (3.3)

1(1.6)

Courtesy of Harold J Burstein, MD, PhD

Pathologic Complete Response



8

Agenda

Module 1: HER2-Positive Breast Cancer

- DESTINY-Breast03
- HER2CLIMB
- SUMMIT, ExteNET, CONTROL

Module 2: Triple-Negative Breast Cancer

- ASCENT, TROPION-PanTumor01
- KEYNOTE-522
- OlympiA, NEOTALA

Module 3: ER-Positive Breast Cancer

- RxPONDER
- monarchE
- SOLAR-1, BYLieve
- EMERALD



The RxPONDER trial demonstrated that in the node-positive population, chemotherapy provided no treatment benefit in patients with a Recurrence Score[®] (RS) ≤25.

- a. Agree
- b. Disagree
- c. I'm not sure

In the RxPONDER trial, the benefit from chemotherapy in premenopausal patients with node-positive tumors was about the same as was seen in previous randomized trials evaluating ovarian suppression versus tamoxifen.

- a. Agree
- b. Disagree
- c. I'm not sure



In the RxPONDER trial, what percent of premenopausal patients received adjuvant ovarian suppression/ablation?

What would you most likely recommend for a 46-year-old premenopausal woman with ER/PR-positive, HER2-negative IDC with 1 of 3 positive nodes and an RS of 8?

- a. Chemotherapy/tamoxifen
- b. Chemotherapy/ovarian suppression
- c. Chemotherapy/ovarian suppression/aromatase inhibitor
- d. Tamoxifen
- e. Ovarian suppression
- f. Ovarian suppression/aromatase inhibitor
- g. Other



In general, what is your approach to Ki-67 assays in localized breast cancer?

- a. I didn't order them in the past, but now I do
- b. I don't order them
- c. I ordered them in the past and continue to do so

For an 89-year-old woman in good health with ER/PR-positive, HER2-negative IDC with 4 positive nodes, how would you approach the issue of adjuvant abemaciclib?

- a. I would not recommend it
- b. I would recommend it and order a Ki-67 assay
- c. I would mention the monarchE trial results to the patient but recommend she not be treated
- d. Other



For a patient who is eligible to receive adjuvant abemaciclib and also has a BRCA germline mutation, would you recommend olaparib, abemaciclib or both?

- a. Olaparib
- b. Abemaciclib
- c. Both olaparib and abemaciclib

How would you characterize the FDA indication for adjuvant abemaciclib?

- a. Straightforward
- b. Somewhat confusing
- c. Very confusing



To date, no Phase III trial has demonstrated a survival benefit with the use of a CDK4/6 inhibitor in aromatase inhibitor-sensitive disease.

- a. Agree
- b. Disagree
- c. I'm not sure

Oral SERDs appear to be at least as effective as fulvestrant and potentially more effective than aromatase inhibitors in patients with ER-positive breast cancer and an ESR1 mutation.

- a. Agree
- b. Disagree
- c. I'm not sure



RxPONDER: Clinical Outcomes among Patients with a Recurrence Score ≤25







Annals of Oncology DOI: (10.1016/j.annonc.2021.10.015) Terms and Conditions

Courtesy of Harold J Burstein, MD, PhD





ORIGINAL ARTICLE

Alpelisib plus fulvestrant for *PIK3CA*-mutated, hormone receptor-positive, human epidermal growth factor receptor-2—negative advanced breast cancer: final overall survival results from SOLAR-1

F. André^{1*}, E. M. Ciruelos², D. Juric³, S. Loibl⁴, M. Campone⁵, I. A. Mayer⁶, G. Rubovszky⁷, T. Yamashita⁸, B. Kaufman⁹, Y.-S. Lu¹⁰, K. Inoue¹¹, Z. Pápai¹², M. Takahashi¹³, F. Ghaznawi¹⁴, D. Mills¹⁵, M. Kaper¹⁴, M. Miller¹⁴, P. F. Conte¹⁶, H. Iwata¹⁷ & H. S. Rugo¹⁸

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Available online 25 November 2020

Ann Oncol 2021;32(2):208-17.



SOLAR-1: OS for Patients with Advanced Breast Cancer with a PIK3CA Mutation





André F et al. Ann Oncol 2021;32(2):208-17.

Lancet Oncol 2021;22:489-98.

Alpelisib plus fulvestrant in *PIK*3CA-mutated, hormone receptor-positive advanced breast cancer after a CDK4/6 inhibitor (BYLieve): one cohort of a phase 2, multicentre, open-label, non-comparative study

Hope S Rugo, Florence Lerebours, Eva Ciruelos, Pamela Drullinsky, Manuel Ruiz-Borrego, Patrick Neven, Yeon Hee Park, Aleix Prat, Thomas Bachelot, Dejan Juric, Nicholas Turner, Nickolas Sophos, Juan Pablo Zarate, Christina Arce, Yu-Ming Shen, Stuart Turner, Hemanth Kanakamedala, Wei-Chun Hsu, Stephen Chia





BYLieve Efficacy Outcomes





New therapies to target ER: Oral SERDs & SERCAs

Class	Name of Drug	Clinical Development phase		
Oral SERD	GDC-9545/Giredestrant	Phase 3		
	AZD9833/Camizestrant	Phase 3		
	RAD-1901/Elacestrant	Phase 3		
	SAR-439859/Amcenestrant	Phase 3		
	G1T48/Rintodestrant	Phase 3		
	G1T48/Rintodestrant	Phase 2		
	ZB-716/Borestrant	Phase 1/2		
	D-0502	Phase 1		
	SHR9549	Phase 1		
SERCA	H3B-6545	Phase 1		
CERAN	OP-1250	Phase 1		
PROTAC	ARV-471	Phase 1		

SERD – Selective ER Degraders SERCA - Selective ER Covalent Antagonist CERAN - Complete ER Antagonist PROTAC - Proteolysis Targeting Chimera

Novel endocrine agents (oral SERDs, PROTAC, SERCA, CERAN) are active after fulvestrant and/or CDK4/6 inhibitors and work against both *ESR1 wt* and *ESR1* mutant tumours

Courtesy of Professor Peter Schmid, FRCP, MD, PhD

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San Antonio Breast Cancer Symposium[®], December 7-10, 2021

Oral SERD in 2/3L MBC: Elacestrant Phase 3 Trial (EMERALD)



Courtesy of Professor Peter Schmid, FRCP, MD, PhD

Bardia, SABCS 2021

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EMERALD: Treatment-Emergent Adverse Events

			SOC						
	Elacestrant N = 237, n (%)		Total N = 229, n (%)		Fulvestrant N = 161, n (%)		AI N = 68, n (%)		
Preferred Term	All Grades	Grade 3/4	All Grades	Grade 3/4	All Grades	Grade 3/4	All Grades	Grade 3/4	
Nausea	83 (35.0)	6 (2.5)	43 (18.8)	2 (0.9)	26 (16.1)	-	17 (25.0)	2 (2.9)	
Fatigue	45 (19.0)	2 (0.8)	43 (18.8)	2 (0.9)	35 (21.7)	1 (0.6)	8 (11.8)	1 (1.5)	
Vomiting	45 (19.0)	2 (0.8)	19 (8.3)	-	12 (7.5)	-	7 (10.3)	-	
Decreased appetite	35 (14.8)	2 (0.8)	21 (9.2)	1 (0.4)	12 (7.5)	-	9 (13.2)	1 (1.5)	
Arthralgia	34 (14.3)	2 (0.8)	37 (16.2)	-	28 (17.4)	-	9 (13.2)	-	
Diarrhea	33 (13.9)	-	23 (10.0)	2 (0.9)	14 (8.7)	1 (0.6)	9 (13.2)	1 (1.5)	
Back pain	33 (13.9)	6 (2.5)	22 (9.6)	1 (0.4)	16 (9.9)	1 (0.6)	6 (8.8)	-	
Aspartate aminotransferase increased	31 (13.1)	4 (1.7)	28 (12.2)	2 (0.9)	20 (12.4)	2 (1.2)	8 (11.8)	-	
Headache	29 (12.2)	4 (1.7)	26 (11.4)	-	18 (11.2)	-	8 (11.8)	(m)	
Constipation	29 (12.2)		15 (6.6)	-	10 (6.2)		5 (7.4)		
Hot flush	27 (11.4)	-	19 (8.3)	-	15 (9.3)	-	4 (5.9)	-	
Dyspepsia	24 (10.1)	-	6 (2.6)	-	4 (2.5)	-	2 (2.9)	-	
Alanine aminotransferase increased	22 (9.3)	5 (2.1)	23 (10.0)	1 (0.4)	17 (10.6)	-	6 (8.8)	1 (1.5)	



Year in Review: Clinical Investigator Perspectives on the Most Relevant New Data Sets and Advances in Oncology Targeted Therapy for Non-Small Cell Lung Cancer

> Tuesday, January 11, 2022 5:00 PM – 6:00 PM ET

Faculty John V Heymach, MD, PhD Zofia Piotrowska, MD, MHS

> Moderator Neil Love, MD



Thank you for joining us!

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

