

Optimizing Therapy for Patients with Hormone Receptor-Positive Localized Breast Cancer

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Disclosures

Advisory Committees and Consulting Agreements	AstraZeneca Pharmaceuticals LP, Daiichi Sankyo Inc, Gilead Sciences Inc, Lilly, Novartis, Pfizer Inc, Seagen Inc, Tesaro, A GSK Company
Contracted Research	Corcept Therapeutics Inc, Daiichi Sankyo Inc, Genentech, a member of the Roche Group, Lilly, Pfizer Inc, Seagen Inc

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Key Datasets

- Andre F et al. **Biomarkers for adjuvant endocrine and chemotherapy** in early-stage breast cancer: ASCO Guideline update. *J Clin Oncol* 2022;40:1816-37.
- Sparano JA et al. Trial Assigning Individualized Options for treatment (**TAILORx**): **An update** including 12-year event rates. San Antonio Breast Cancer Symposium 2022;Abstract GS1-05.
- Sparano JA et al. **Clinical** outcomes in early breast cancer with a **high 21-gene Recurrence Score** of 26 to 100 assigned to **adjuvant chemotherapy plus endocrine therapy**: A **secondary analysis of the TAILORx** randomized clinical trial. *JAMA Oncol* 2020;6(3):367-74.
- Chen N et al. **Impact of anthracyclines** in **genomic high-risk, node-negative, HR-positive/HER2-negative** breast cancer. *Ann Oncol* 2025;36(11):1356-65.
- O'Shaughnessy J et al. **Improved 3-year IDFS with anthracycline-based therapy** for patients with **70-gene signature high 2**, luminal B, HR+HER2- early-stage breast cancer. San Antonio Breast Cancer Symposium 2025;Abstract PS2-07-03.
- Kalinsky K et al. **21-gene assay** to inform **chemotherapy benefit in node-positive** breast cancer. *N Engl J Med* 2021; 385(25):2336-47.
- Piccart M et al. **70-gene signature** as an aid for treatment decisions in early breast cancer: **Updated results** of the phase 3 randomised **MINDACT trial** with an exploratory analysis by age. *Lancet Oncol* 2021;22(4):476-88.
- Sestak I et al. **Comparison** of the performance of 6 **prognostic signatures** for estrogen receptor-positive breast cancer: A **secondary analysis of a randomized clinical trial**. *JAMA Oncol* 2018;4(4):545-53.
- Noordhoek I et al. **Breast Cancer Index** predicts **extended endocrine benefit** to individualize selection of patients with HR+ early-stage breast cancer for **10 years of endocrine therapy**. *Clin Cancer Res* 2021;27(1):311-19.

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- Woolpert KM et al. **Biomarkers predictive** of a response to **extended endocrine therapy** in breast cancer: A systematic review and meta-analysis. *Breast Cancer Res Treat* 2024;203(3):407-17.
- Johnston S et al. **monarchE: Primary overall survival** (OS) results of adjuvant abemaciclib + endocrine therapy (ET) for HR+, HER2-, high-risk early breast cancer (EBC). ESMO 2025;Abstract LBA13.
- Johnston S et al. **Overall survival** with **abemaciclib** in early breast cancer. *Ann Oncol* 2026;37(2):155-65.
- Cortés J et al. **monarchE: Subgroup analysis** of adjuvant abemaciclib + endocrine therapy for HR+, HER2-, high-risk early breast cancer by nodal status. San Antonio Breast Cancer Symposium 2025;Abstract PS1-08-08.
- Crown JP et al. **Adjuvant ribociclib** (RIB) **plus nonsteroidal aromatase inhibitor** (NSAI) in patients (pts) with HR+/HER2– early breast cancer (EBC): **NATALEE 5-year outcomes**. ESMO 2025;Abstract LBA14.
- Rugo HS et al. **Adjuvant abemaciclib** combined **with endocrine therapy** for high-risk early breast cancer: **Safety and patient-reported outcomes** from the **monarchE** study. *Ann Oncol* 2022;33(6):616-27.
- Barrios C et al. **NATALEE update: Safety and treatment (tx) duration** of **ribociclib** (RIB) + **nonsteroidal aromatase inhibitor** (NSAI) in patients (pts) with HR+/HER2– early breast cancer (EBC). ESMO Breast 2024;Abstract 113MO.
- Mayer EL et al. **TRADE: A phase II** trial to assess the **tolerability of abemaciclib dose escalation** in early-stage HR-positive/HER2-negative breast cancer. *Ann Oncol* 2025;31(1):117-24.
- Bardia A et al. **Giredestrant** vs standard-of-care endocrine therapy as **adjuvant treatment** for patients with estrogen receptor-positive, HER2-negative early breast cancer: **Results from the global phase III lidERA Breast Cancer trial**. San Antonio Breast Cancer Symposium 2025;Abstract GS1-10.

Management of Hormone Receptor (HR)-Positive Localized Breast Cancer

Module 1: Risk Assessment and Genomic Assays for HR-Positive, HER2-Negative Localized Breast Cancer

Module 2: Clinician Survey Results

Module 3: Adjuvant CDK4/6 Inhibitors for High-Risk, HR-Positive, HER2-Negative Localized Breast Cancer

Module 4: Clinician Survey Results

Module 5: Tolerability and Other Practical Considerations with Adjuvant CDK4/6 Inhibitor Therapy

Module 6: Clinician Survey Results

Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

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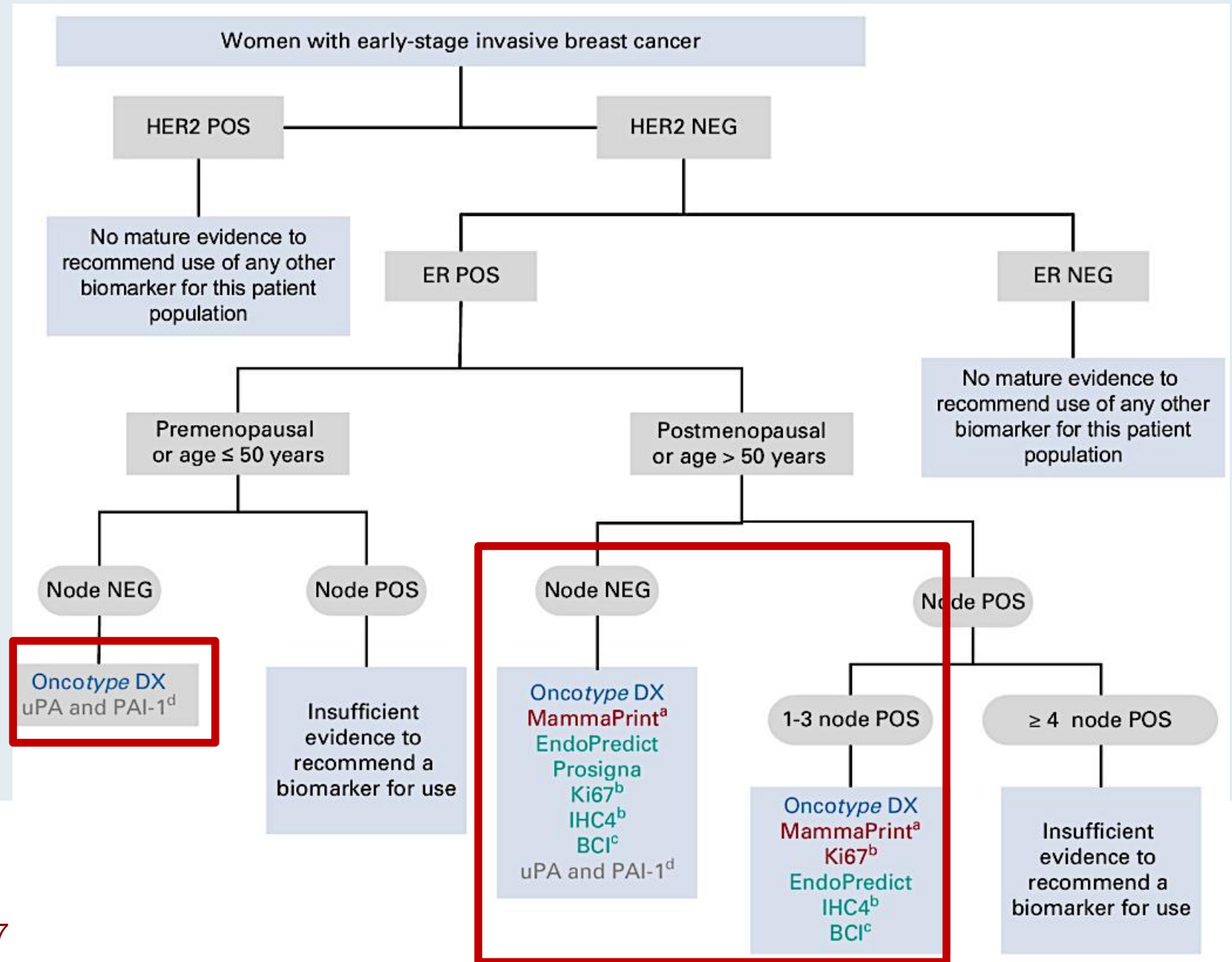
Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

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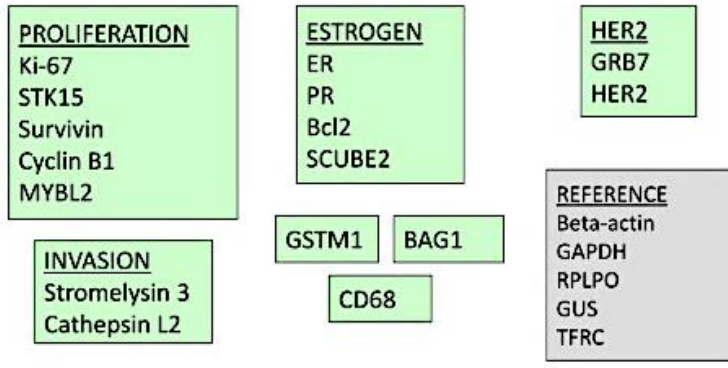
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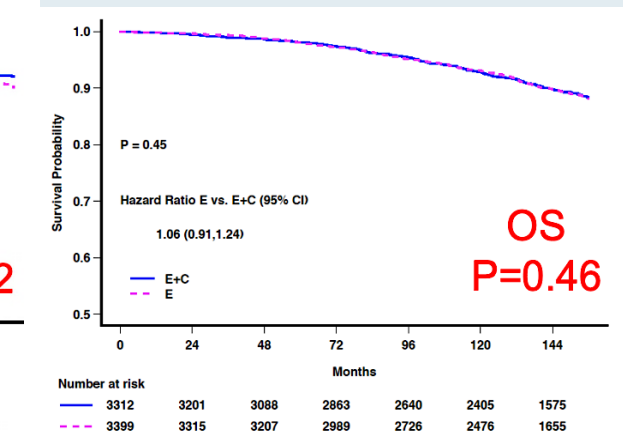
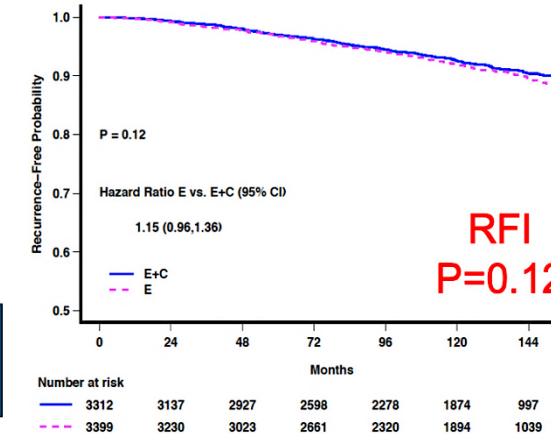
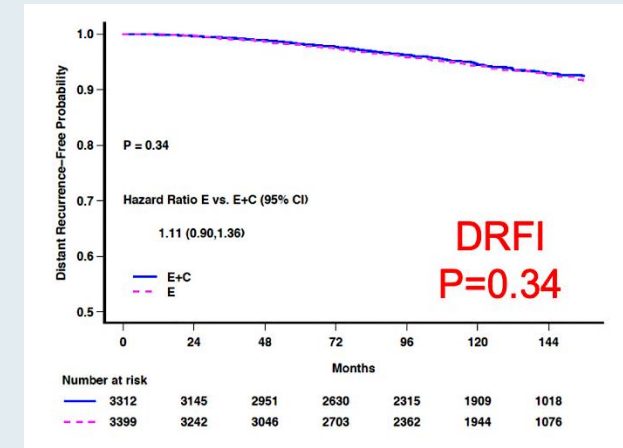
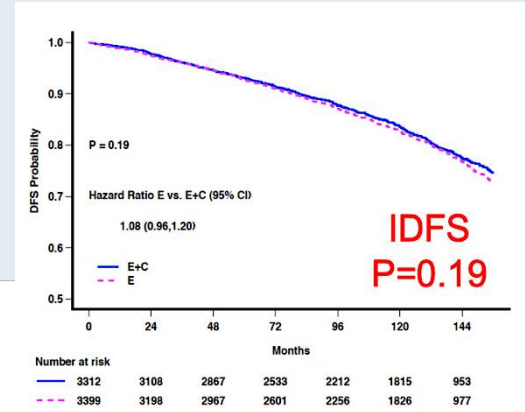
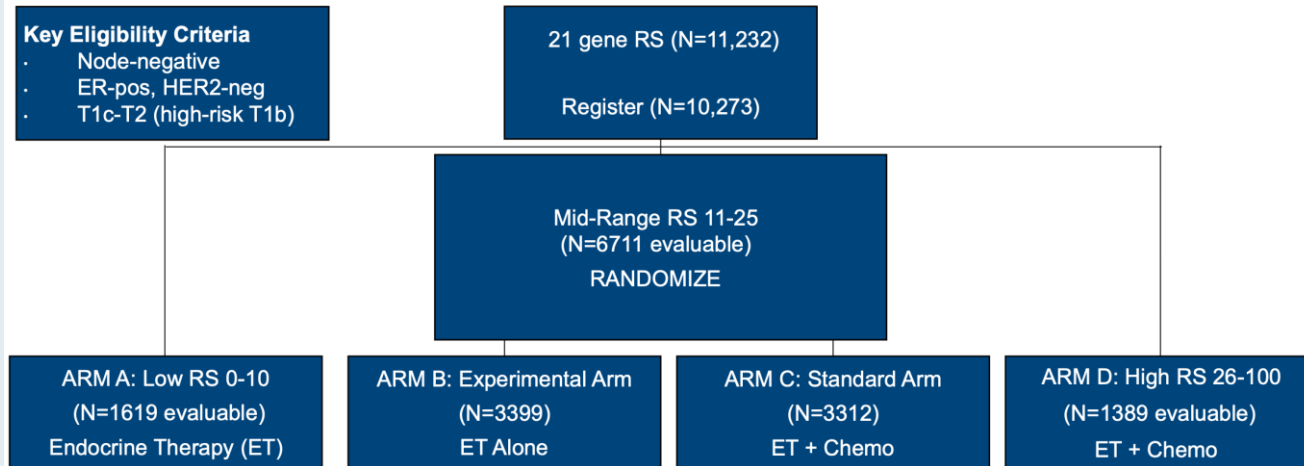
OncotypeDX®: TAILORx Trial Key Results for Node-Negative Disease

16 Cancer and 5 Reference Genes From 3 Studies



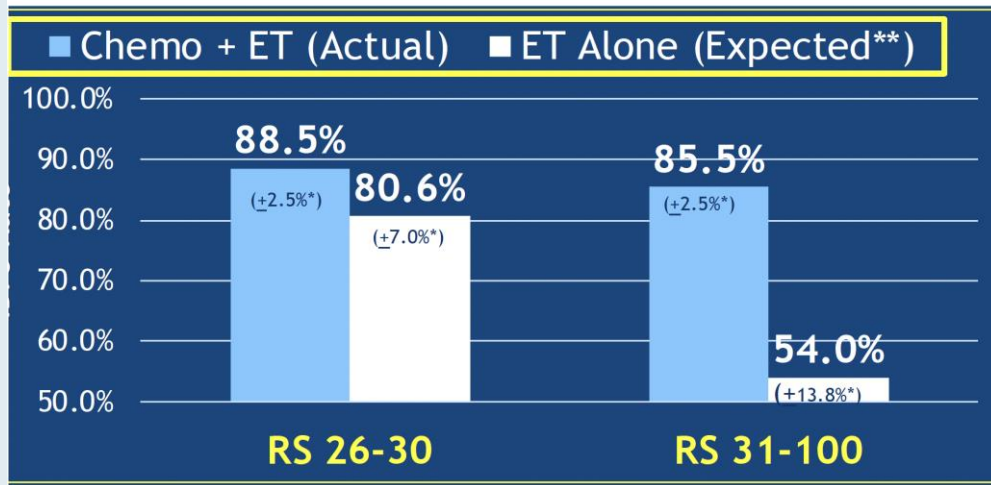
**Intermediate risk (11-25):
No overall benefit to chemotherapy (2022 update)**

TAILORx Trial Design

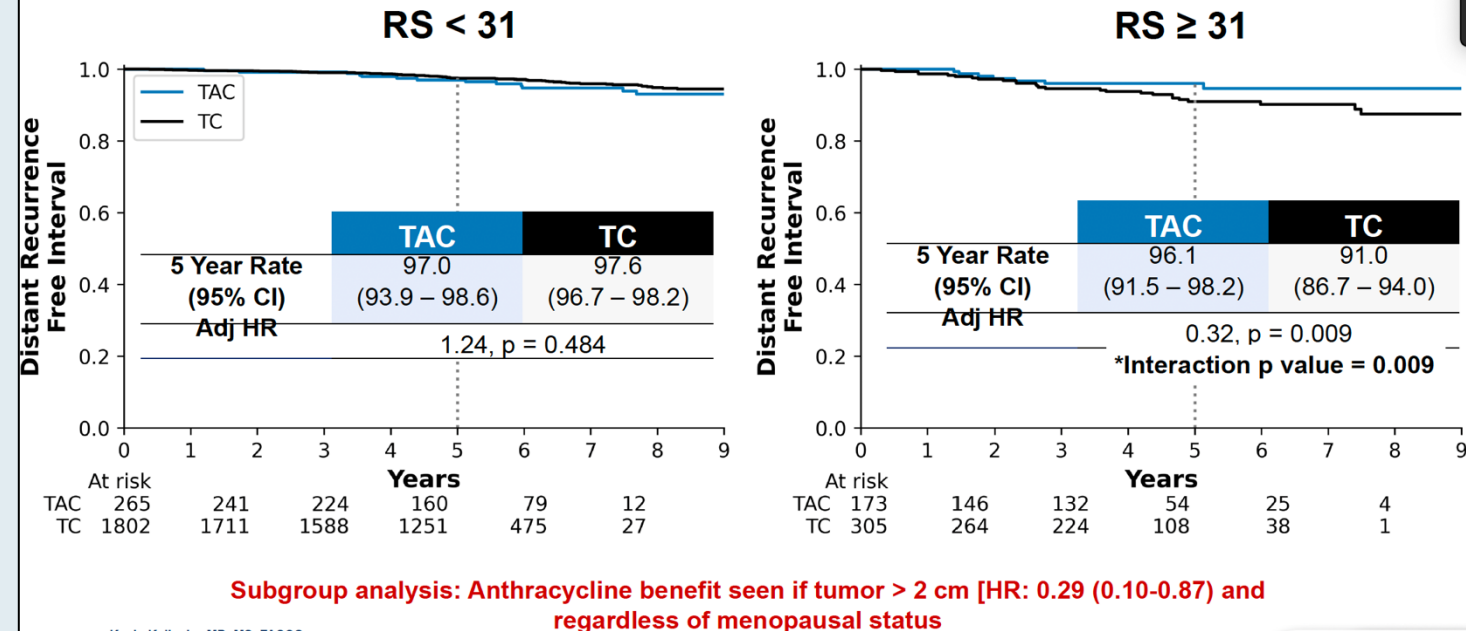


Chemotherapy and Anthracycline Benefits for Patients with High Recurrence Scores® (>25)

High Risk (RS > 25): Expected benefit with chemotherapy



DRFI Benefit at 5 y with Anthracycline if RS > 31

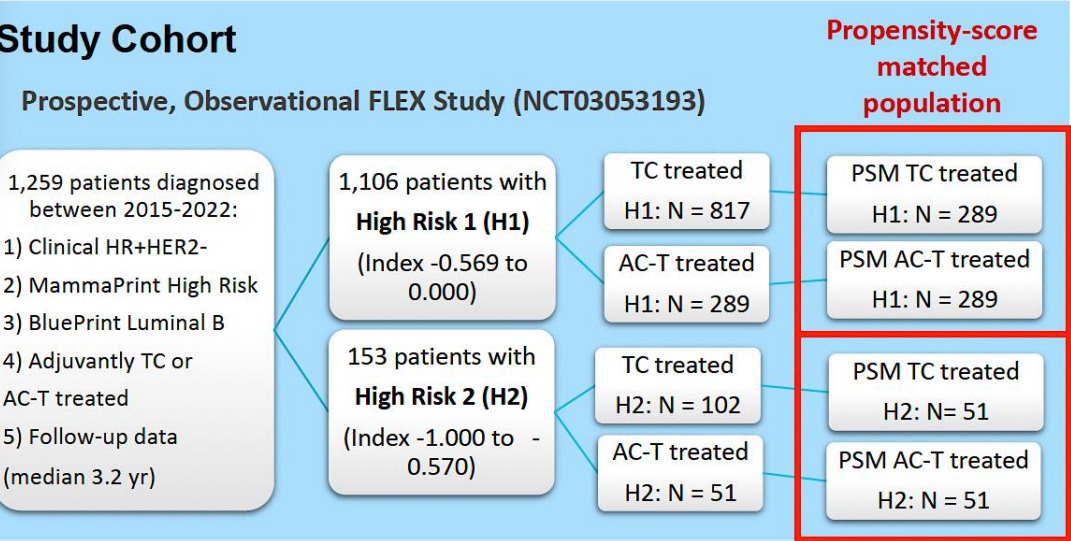


“No chemotherapy” rates estimated by combining

- patient-specific distant recurrence risk information with
- patient-specific chemotherapy benefit information
- from the ERBB2-negative cohort of NSABP B20

TAILORx N = 2,549. T-AC vs TC
 5-y DRFI 96.1 vs 91%, HR 0.31, p = 0.006
 5-y DRFS 95.4% vs 89.8%, aHR 0.49, p = 0.032
 OS NS

Propensity-Score Matched Analysis of Real-World FLEX Data: IDFS with Anthracycline-Based Therapy for Patients with MammaPrint® High 2, Luminal B, HR-Positive, HER2-Negative Localized Breast Cancer

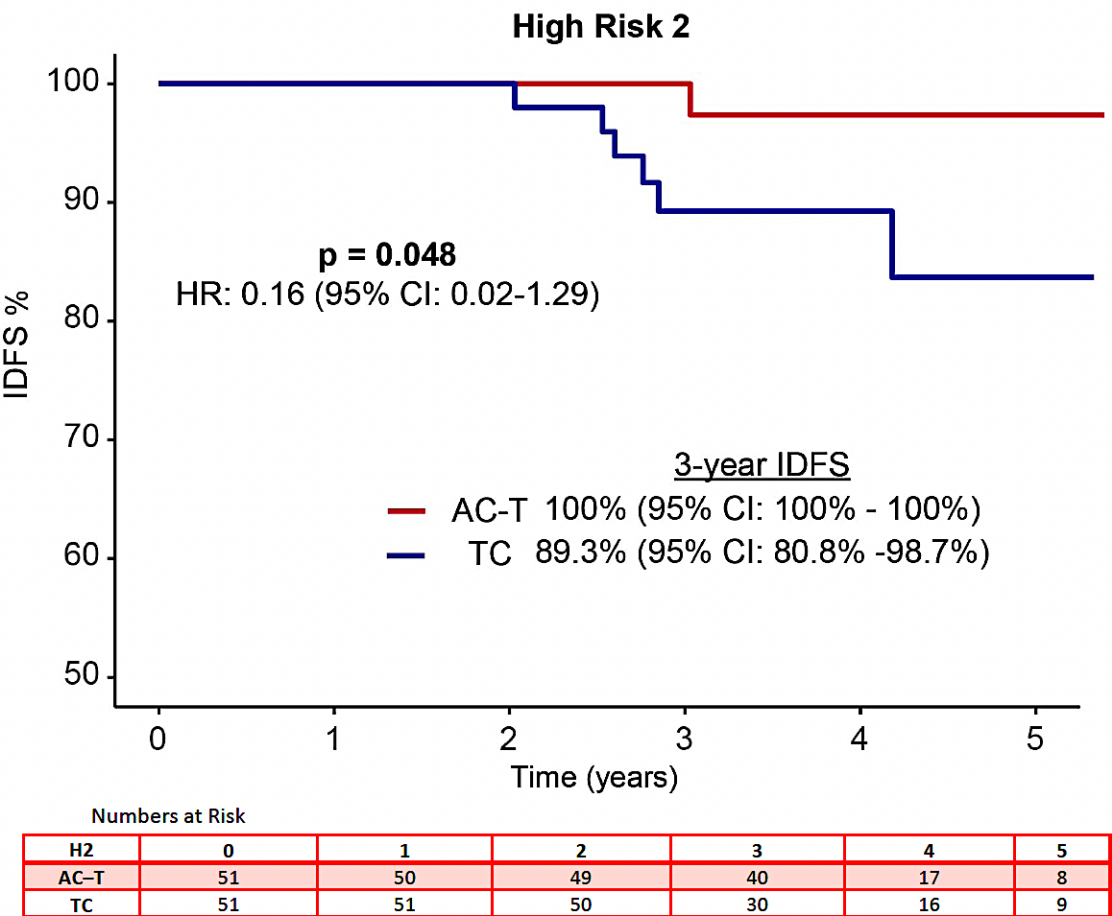


Conclusions

- In this PSM analysis of a non-randomized, prospective, real-world FLEX Study data with 3.2 years median follow-up, patients with H2, HR+HER2-cancer had significantly improved IDFS with AC-T compared to TC
- Although adjusted analyses were limited by few events, the direction and magnitude of benefit remained consistent
- In contrast, patients with H1 cancer did not benefit more from AC-T vs. TC
- These findings further support the utility of MammaPrint in informing chemotherapy selection in patients with HR+HER2- breast cancer

IDFS = invasive disease-free survival

Figure 2. IDFS in patients with High Risk 2 cancer: AC-T vs TC



OncotypeDX: RxPONDER Trial Results Summary One to Three Positive Lymph Nodes

RxPONDER Trial Design

Key Entry Criteria

- Women age ≥ 18 yrs
- ER and/or PR $\geq 1\%$, HER2- breast cancer with 1*-3 LN+ without distant metastasis
- Able to receive adjuvant taxane and/or anthracycline-based chemotherapy**
- Axillary staging by SLNB or ALND

R
E
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R
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N

Recurrence Score 0-25

Recurrence Score > 25

Off Study
Chemotherapy Followed by
Endocrine Therapy Recommended

R
A
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D
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O
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N = 5,000 pts

Arm 1:
Chemotherapy Followed by
Endocrine Therapy

Arm 2:
Endocrine Therapy Alone

Stratification Factors

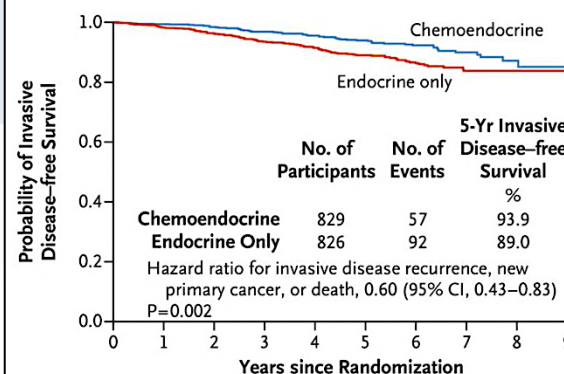
Recurrence Score: 0-13 vs. 14-25
Menopausal Status: pre vs. post
Axillary Surgery: ALND vs. SLNB

RxPONDER Population

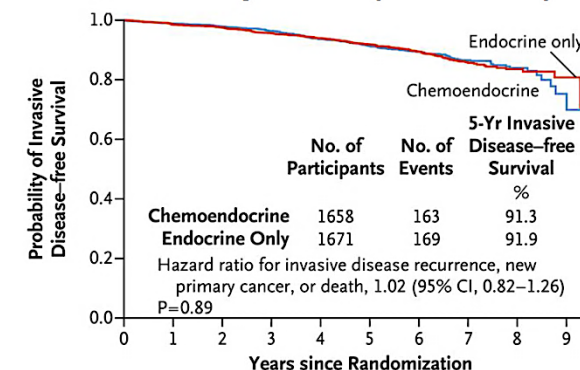
T1	58%	T3	5%
1 LN+	66%	3 LN+	9%
Grade 2	64%	Grade 3	10%
40-49 yrs	21%	< 40 yrs	3%

RxPONDER: Chemo Benefit Different by Menopausal Status if RS 0-25

Premenopausal (1/3rd Trial)



Postmenopausal (2/3rd Trial)



IDFS Benefit Modified by Score for Women Age ≤ 50

Women ≤ 50 yr

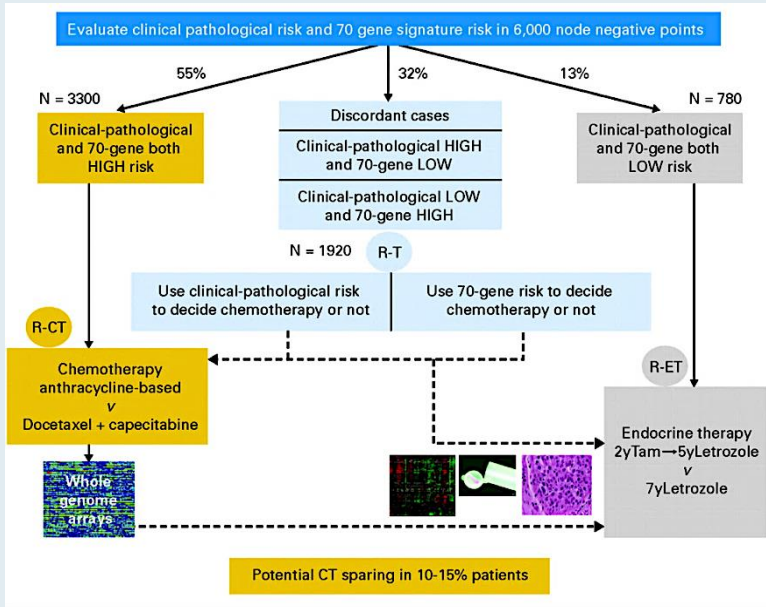
≤ 10 , endocrine only	145	91.0 $\pm$ 2.6	0.31 (0.10–0.94)
≤ 10 , chemoendocrine	135	97.9 $\pm$ 1.5	
11–15, endocrine only	247	93.1 $\pm$ 1.8	0.71 (0.33–1.51)
11–15, chemoendocrine	235	95.4 $\pm$ 1.6	
16–20, endocrine only	227	85.1 $\pm$ 2.6	0.58 (0.33–1.00)
16–20, chemoendocrine	224	92.2 $\pm$ 2.0	
21–25, endocrine only	107	80.0 $\pm$ 4.3	0.56 (0.27–1.17)
21–25, chemoendocrine	98	90.0 $\pm$ 3.6	

MammaPrint: MindACT Trial Key Results

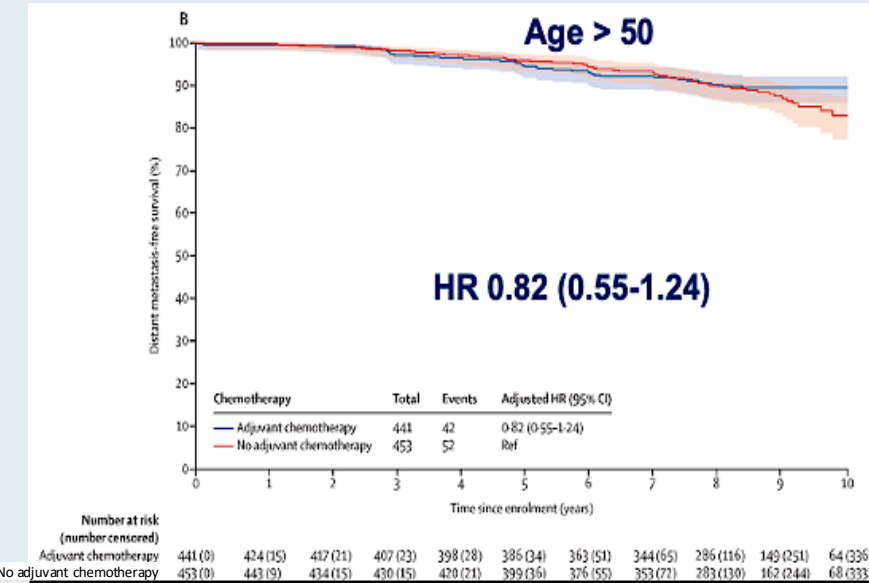
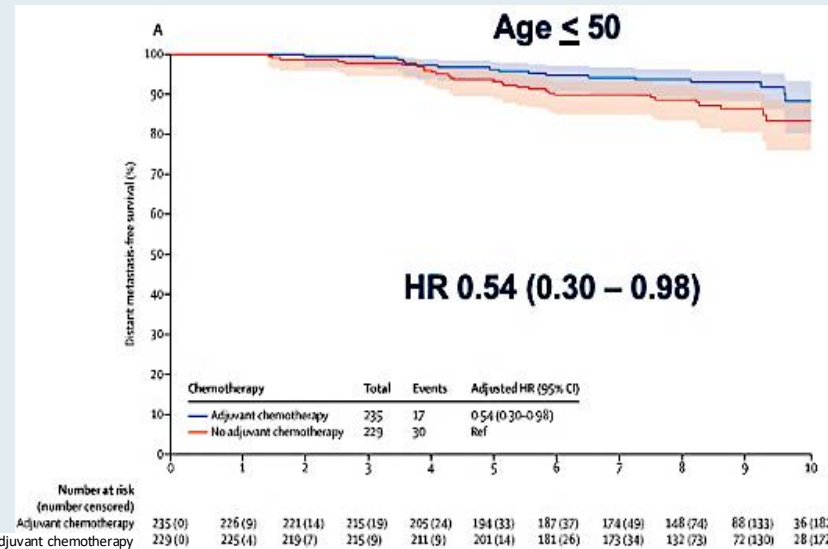
Clinical “high risk”: <88% 10-yr BCSS
Modified Adjuvant! Online to determine
Model included: T size, Node (0-3), grade, ER status, age, comorbidity

Chemo benefit increases over time overall. Lost in those age >50, maintained in those age <50

	ET	CET	Absolute diff
5-y DMFS	94.7% (92.5 – 96.2)	95.9% (94-97.2)	1.2%
8-yr DMFS	89.4% (86.8- 91,5)	92% (896-93.8)	2.6%



Met primary outcome: Lower bound of 95% CI >92% 5-y DMFS in the High Clinical/Low Genomic risk group



BCSS = breast cancer-specific survival; DMFS = distant metastasis-free survival

Cardoso F et al. *N Engl J Med* 2016; Piccart M et al. *Lancet Oncol* 2021.

Prosigna® ROR, EndoPredict® EPclin and Breast Cancer Index®

ROR (risk of recurrence, Prosigna)

- 50-gene RNA-based molecular subtyping assay
- ROR available in US; PAM50 not available

EPclin (EndoPredict)

- 12 genes – Proliferation and hormone receptor

Breast Cancer Index (BCI)

- 7 genes – Proliferation and hormone receptor (HoxB13/IL17BR)

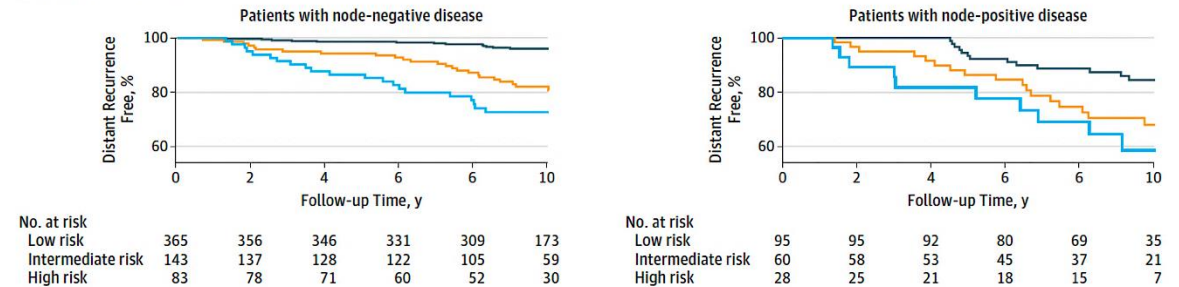
JAMA Oncology | Original Investigation

Comparison of the Performance of 6 Prognostic Signatures for Estrogen Receptor-Positive Breast Cancer A Secondary Analysis of a Randomized Clinical Trial

- Largest retrospective prognostic validation in TransATAC Trial (included Oncotype DX and BCI as well)
- N = 535 node-negative, 154 node-positive
- Examined risk years 0 to 10
- ROR, EPclin and BCI provided most prognostic information
- ROR HR 2.56 (1.96-3.35)
- EPclin HR 2.14 (1.71-2.68)
- BCI HR 2.46 (1.88-3.23)

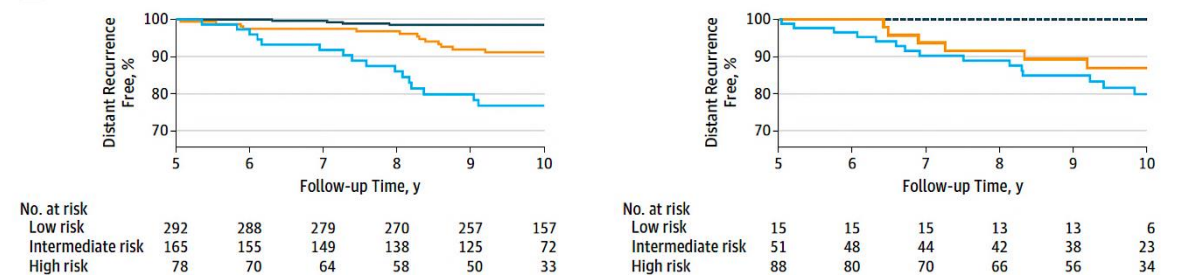
BCI

A Breast cancer index



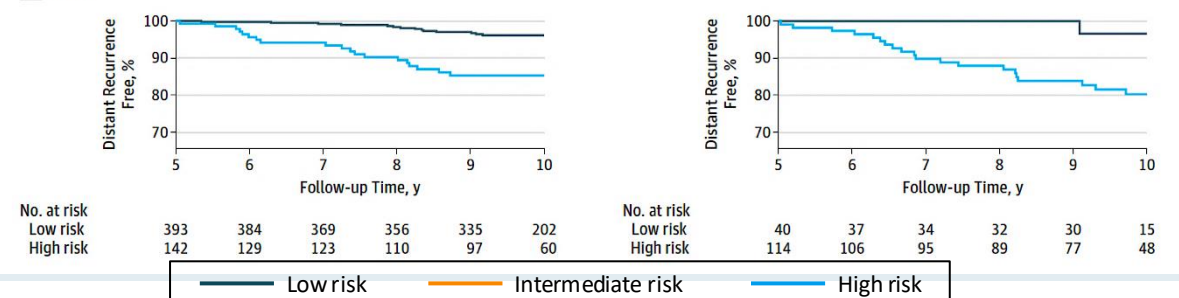
ROR

C Risk of recurrence score



EPclin

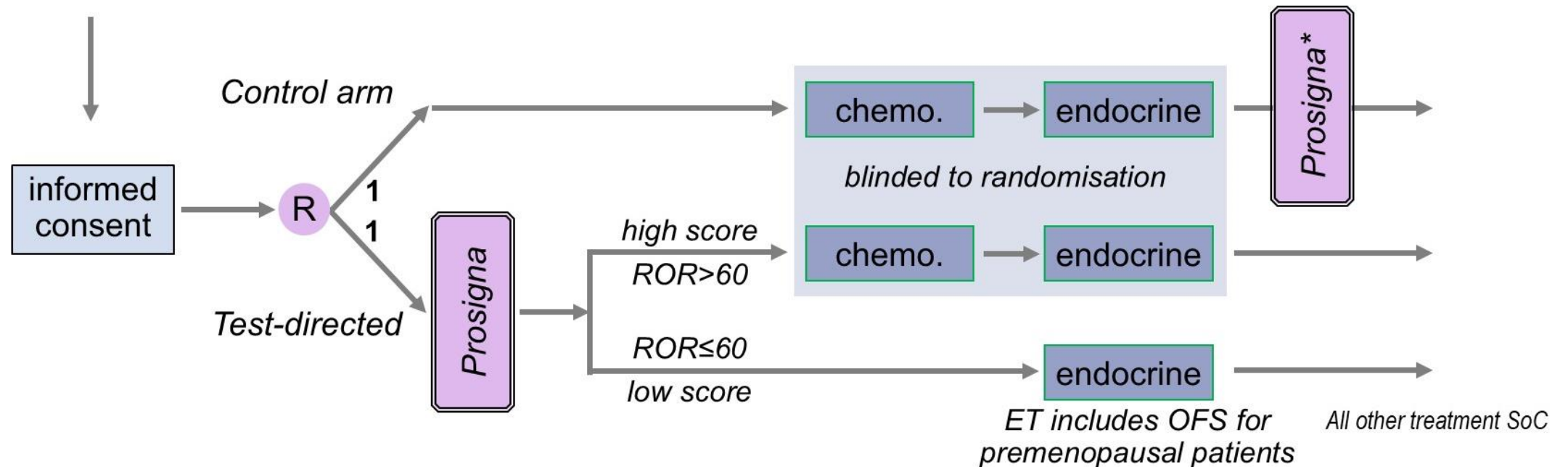
D EPclin



Phase III OPTIMA Study Design

Main eligibility criteria

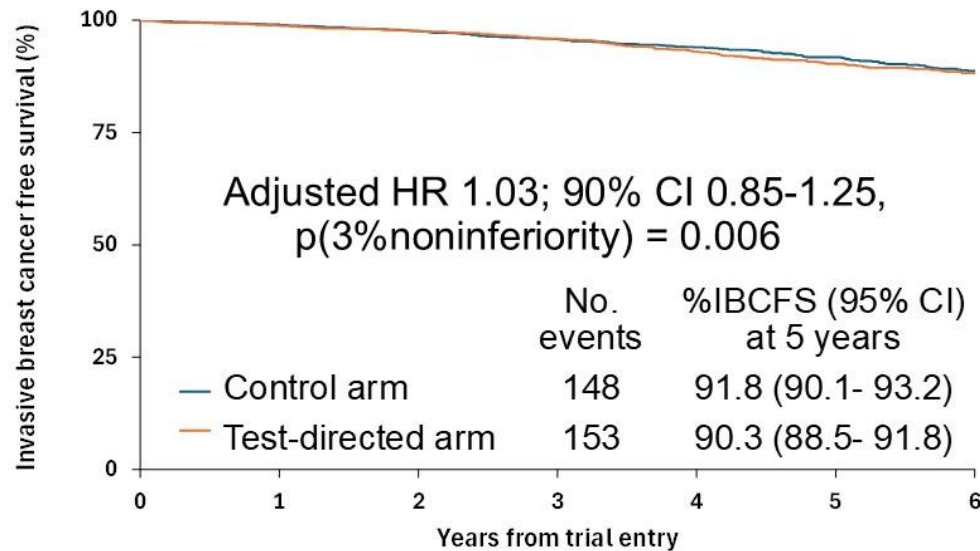
- Women & men age ≥ 40 with excised breast cancer
- ER-pos (IHC $>10\%$) & HER2-neg
- Nodes: $\triangleright 0-9N+$,
 $\triangleright$ minimum T-size requirement if N0/ N1mi
- Neoadjuvant chemotherapy prohibited



*Control arm Prosigna testing used for analysis only. U.K. control arm testing performed following recruitment completion

Phase III OPTIMA: Invasive Breast Cancer-Free Survival (IBCFS)

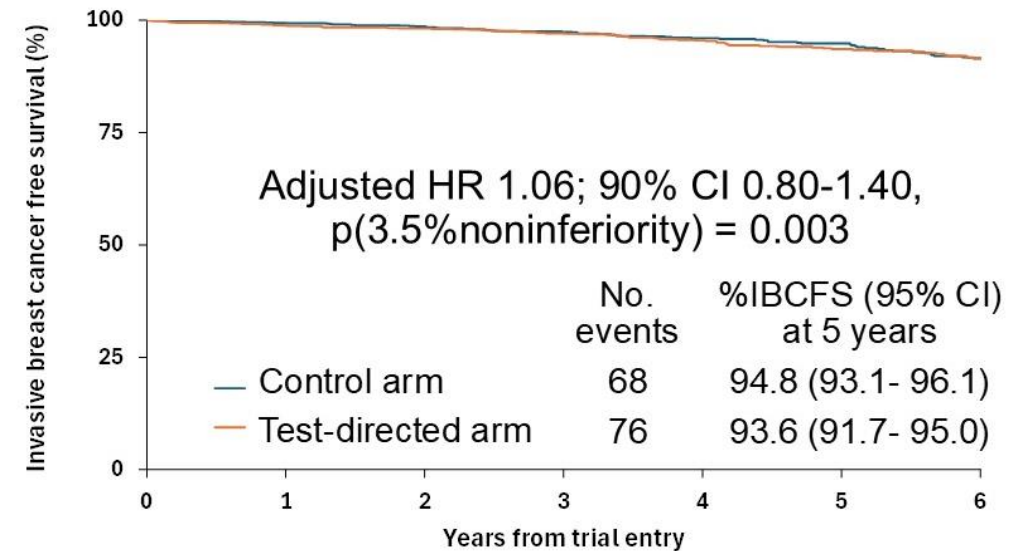
Complete Per Protocol population



Number at risk:							
Control	2059	1818	1563	1283	999	741	485
Test-directed	2094	1857	1591	1303	989	724	481

Demonstrated non-inferiority limit = 2%
 No certainty of chemotherapy benefit
 1.5% observed 5-year difference –favors chemotherapy

ROR ≤60 subpopulation



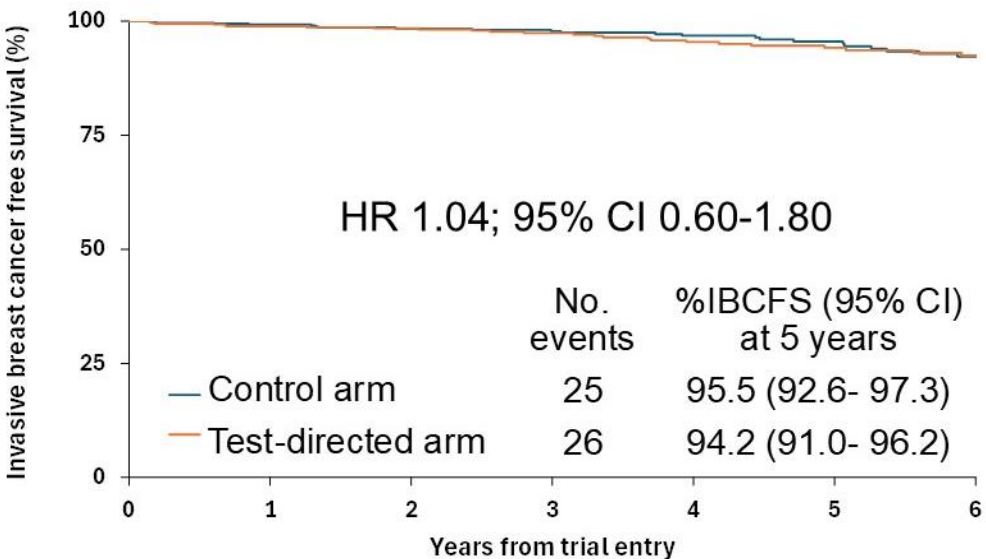
Number at risk:							
Control	1358	1207	1043	862	672	504	337
Test-directed	1421	1257	1086	905	694	503	342

Demonstrated non-inferiority limit = 2%
 No certainty of chemotherapy benefit
 1.2% observed 5-year difference –favors chemotherapy

ROR = risk of recurrence

Phase III OPTIMA: IBCFS and Menopausal Status (Low ROR Score)

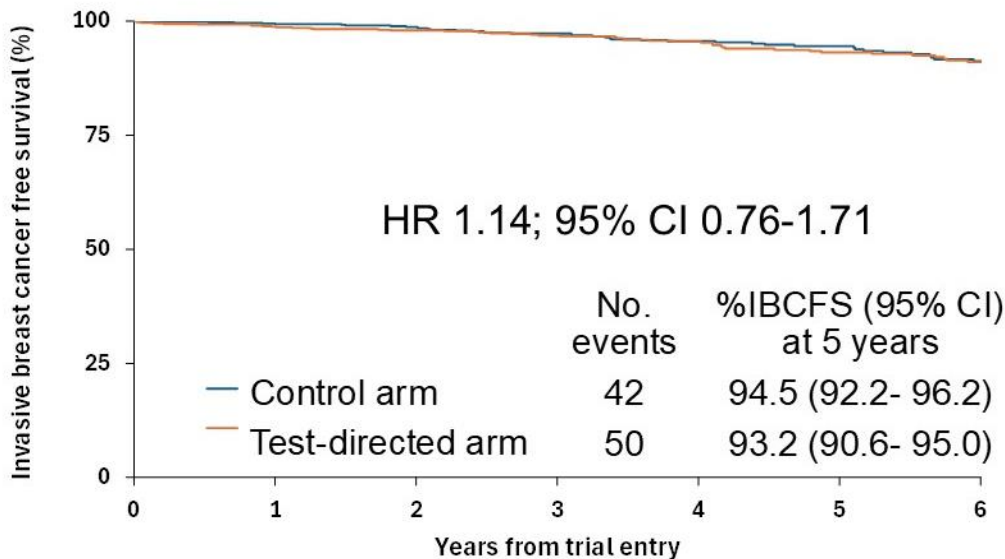
Premenopausal



Number at risk:

Control	561	481	409	338	258	200	140
Test-directed	559	487	410	347	256	195	135

Postmenopausal



Number at risk:

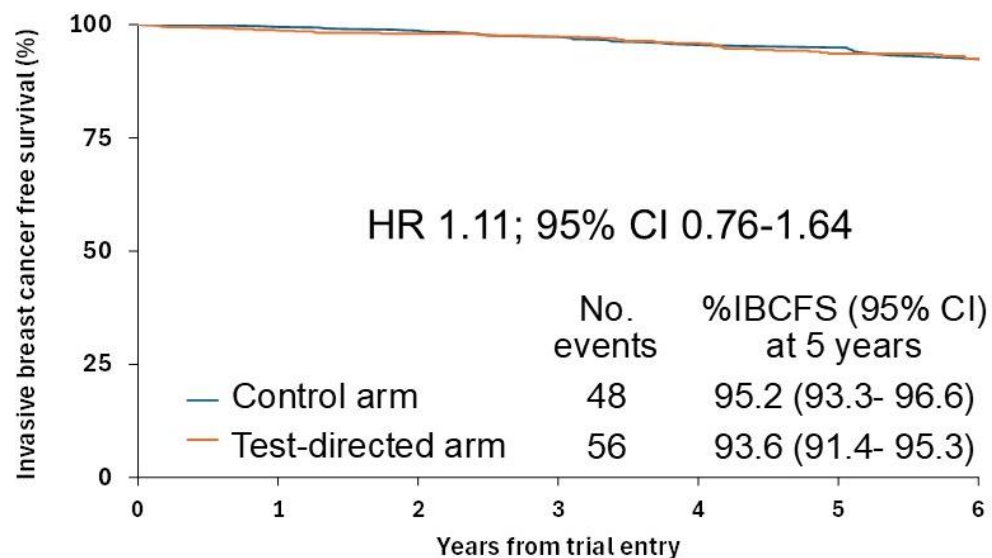
Control	791	721	631	522	414	304	197
Test-directed	858	766	673	556	437	307	207

1.3% observed 5-year difference -favors chemotherapy

1.3% observed 5-year difference -favors chemotherapy

Phase III OPTIMA: IBCFS and Nodal Status (Low ROR Score)

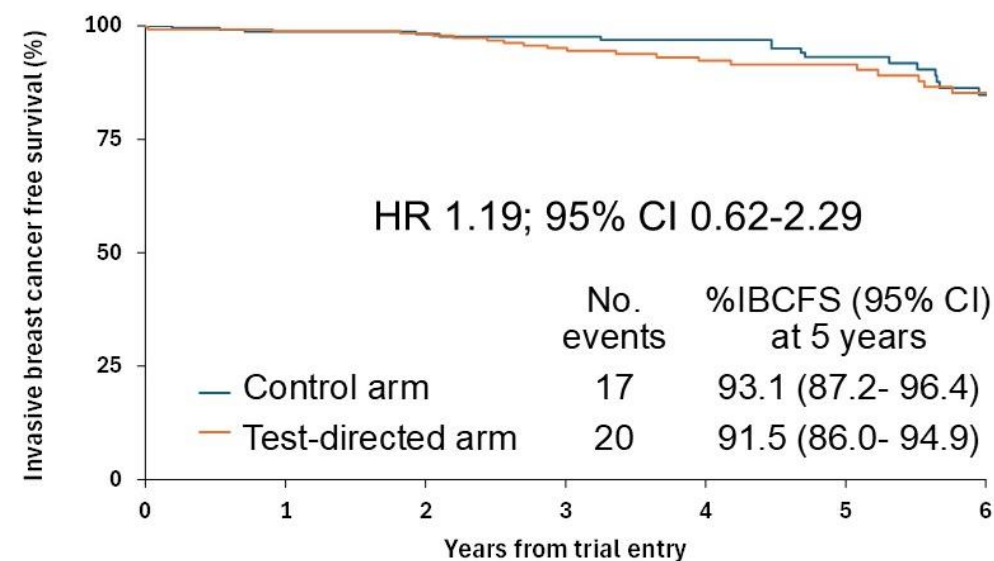
1-3 involved nodes



Number at risk:							
Control	1015	914	798	651	499	382	264
Test-directed	1063	953	829	700	539	389	270

1.6% observed 5-year difference -favors chemotherapy

4-9 involved nodes

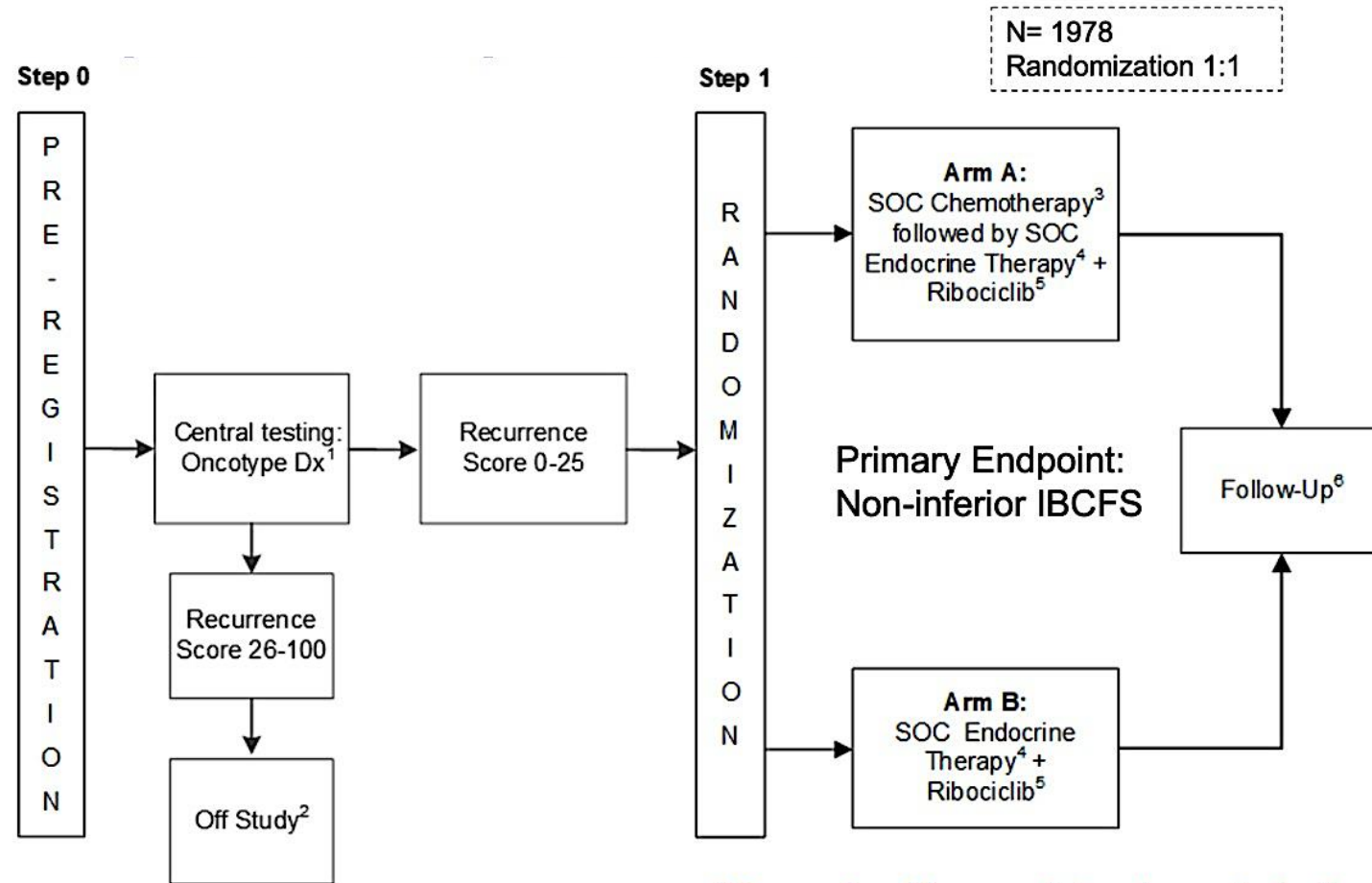


Number at risk:							
Control	243	214	181	155	125	84	48
Test-directed	269	232	197	158	118	86	49

1.6% observed 5-year difference -favors chemotherapy

Phase III RxFINE-Low (EA1242) Study Design

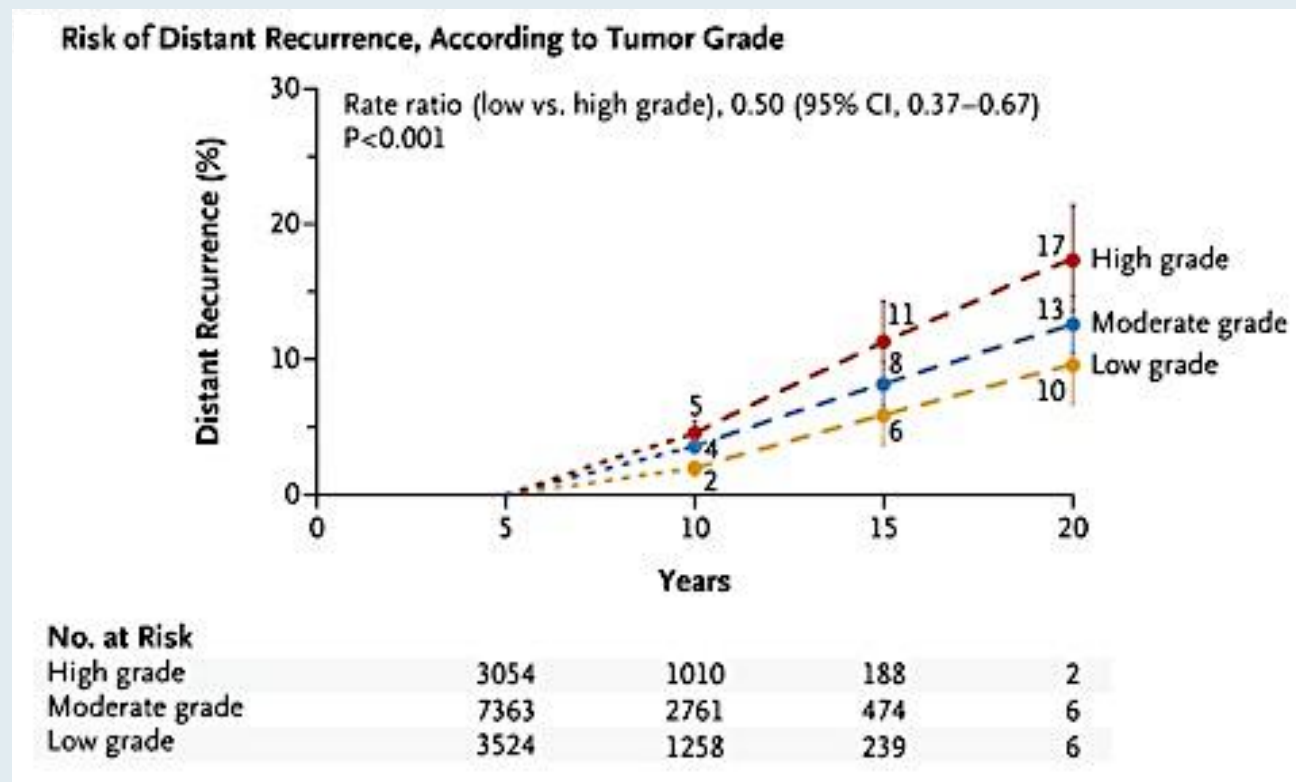
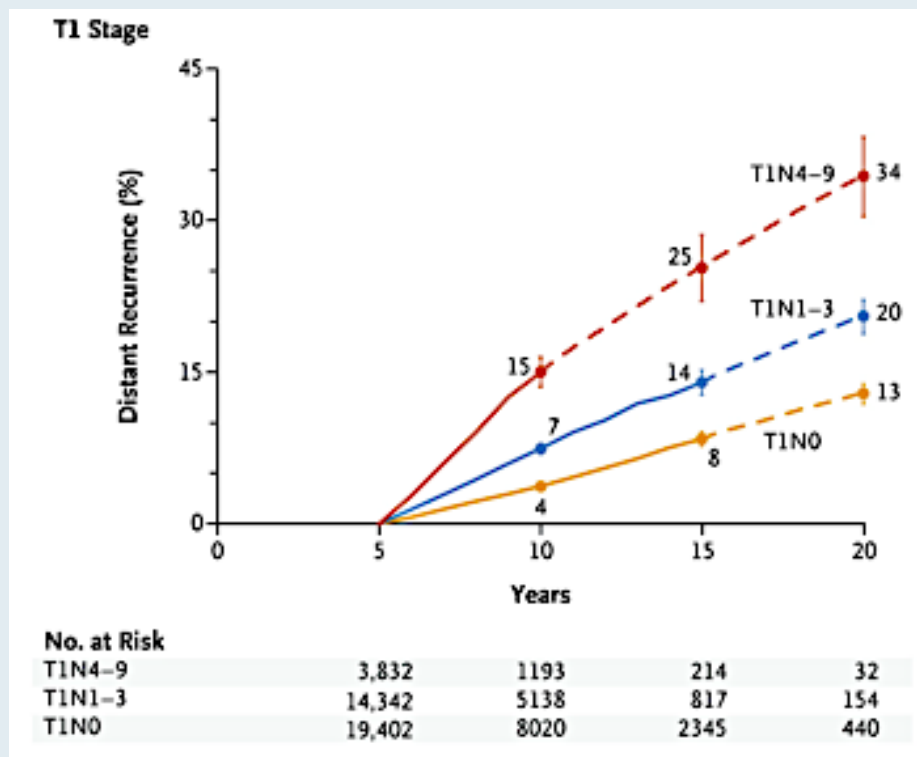
- Postmenopausal
- Stage: pT0-T3 with 3 positive ipsilateral lymph nodes (micro-or macrometastatic disease) and no planned axillary lymph node dissection (ALND) after definitive surgery in the breast and axilla with curative intent
- pT0-T3 with N2 or N3
- pT3 with N0-N3
- Must have undergone axillary staging with sentinel lymph node biopsy (SLNB), targeted axillary dissection (TAD), or ALND



**See protocol for complete schema footnotes*

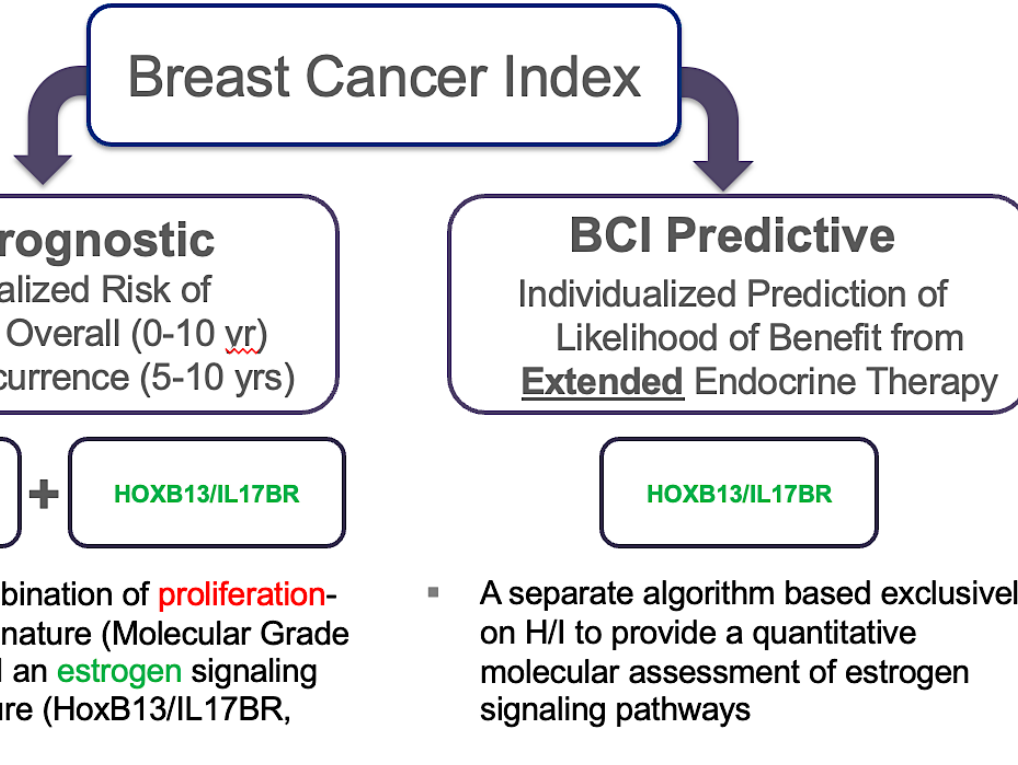
Persistent Long-Term Risk of Distant Recurrence

Risk of late distant recurrence after 5 years of adjuvant endocrine therapy persists across all clinical stages.



Breast Cancer Index (BCI)

BCI Components



Distribution of BCI scores

Low Risk (<4.8%) / Low Likelihood of Benefit

~45%

High Risk (>4.8%) / High Likelihood of Benefit

~30%

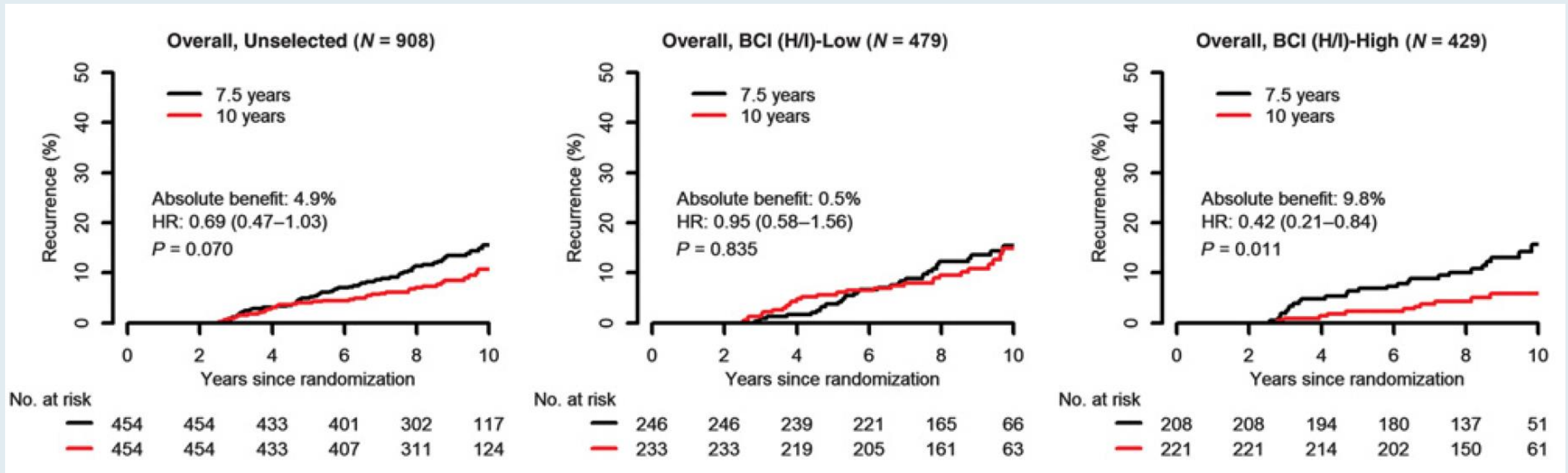
High Risk (>4.8%) / Low Likelihood of Benefit

~15%

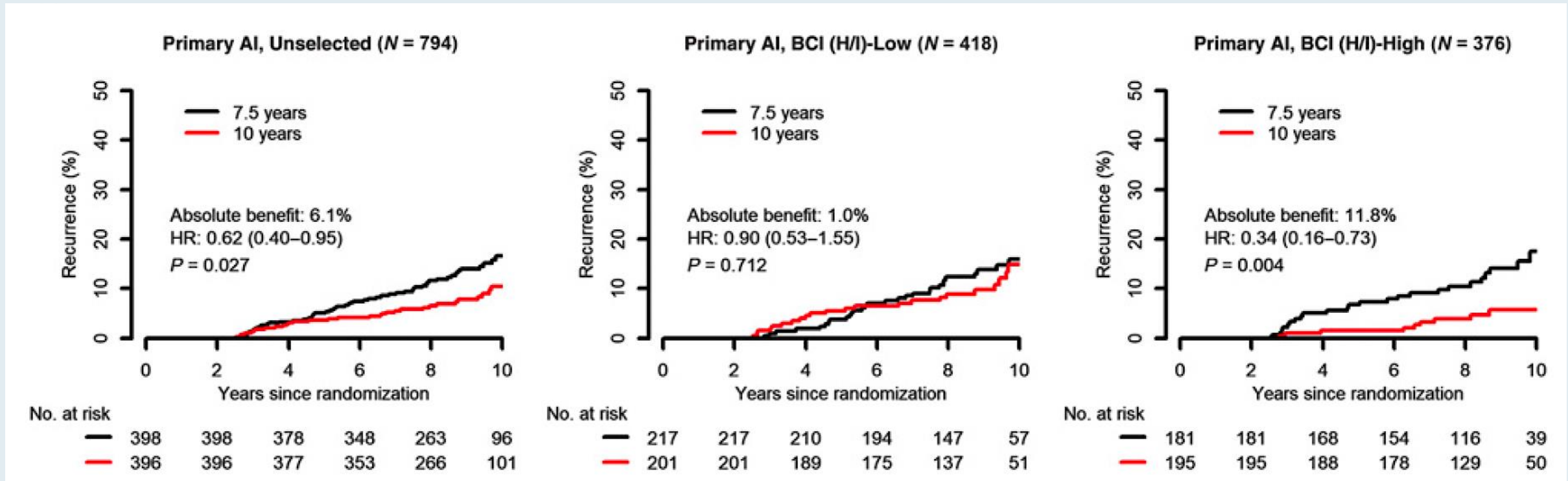
Low Risk (<4.8%) / High Likelihood of Benefit

~10%

Predictive Performance by BCI H/I Groups Based on Recurrence-Free Interval in the Overall Cohort of the Phase III IDEAL Trial



Predictive Performance by BCI H/I Groups Based on Recurrence-Free Interval in the Subset of Patients in the Phase III IDEAL Trial Who Received a Primary Aromatase Inhibitor (AI)

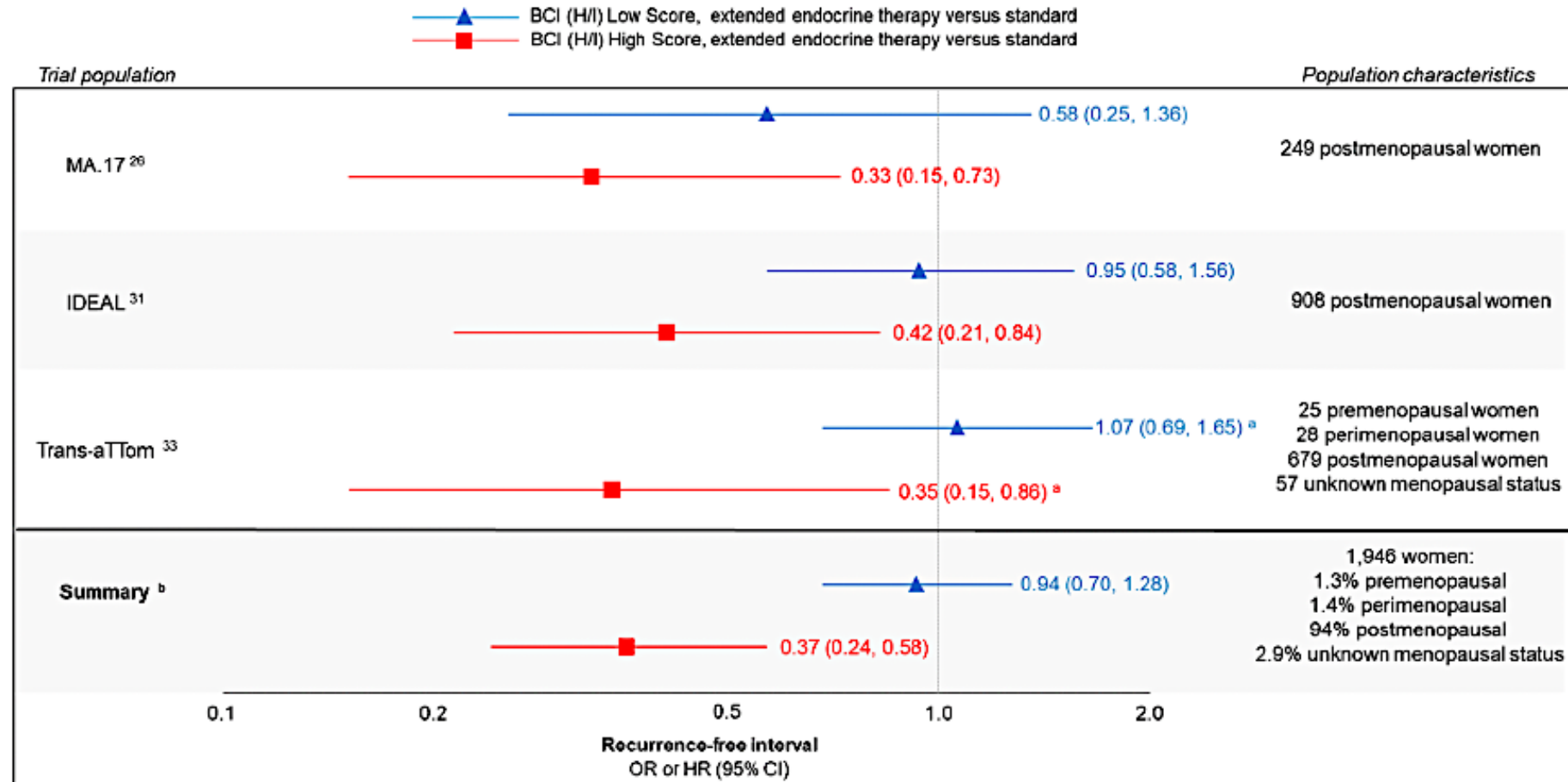


Risk of Recurrence at Year 10 Since Randomization for Patients Who Received 5 Years versus 2.5 Years of Additional Letrozole in the Overall Cohort and in the Primary AI Subset of the Phase III IDEAL Trial

Groups	5-year letrozole		2.5-year letrozole		HR (95% CI)*
	Number of Patients	10-year risk (95% CI)	Number of Patients	10-year risk (95% CI)	
Overall (N=908)					
Unselected	454 (100%)	10.6% (7.1-14.0)	454 (100%)	15.5% (11.5-19.3)	0.69 (0.47-1.03)
BCI (H/I)-High	221 (49%)	5.9% (2.3-9.3)	208 (46%)	15.7% (9.5-21.5)	0.42 (0.21-0.84)
BCI (H/I)-Low	233 (51%)	14.9% (9.1-20.3)	246 (54%)	15.4% (10.1-20.4)	0.95 (0.58-1.56)
Primary AI (N=794)					
Unselected	396 (100%)	10.5% (6.6-14.2)	398 (100%)	16.6% (12.1-20.8)	0.62 (0.40-0.95)
BCI (H/I)-High	195 (49%)	5.7% (1.9-9.4)	181 (45%)	17.5% (10.1-24.4)	0.34 (0.16-0.73)
BCI (H/I)-Low	201 (51%)	14.9% (8.2-21.1)	217 (55%)	15.9% (10.2-21.3)	0.90 (0.53-1.55)

*HR was calculated to compare 5-year letrozole vs. 2.5-year letrozole. HR=hazard ratio. CI=confidence interval.

BCI Validation in Extended-Adjuvant Therapy Trials



- a. Estimates reported are from most recent update on results from this population.
b. Summary statistic calculated using a random effects model incorporating each study's OR or HR and its associated 95% confidence interval.

ASCO Guideline: Extended Adjuvant Therapy

Extended Endocrine Therapy for ER-Positive HER2-Negative Breast Cancer

Oncotype DX, EndoPredict, Prosigna, Ki67, or IHC4.

Recommendation 1.23. If a patient has node-negative breast cancer and has had 5 years of endocrine therapy without evidence of recurrence, there is insufficient evidence to use Oncotype DX, EndoPredict, Prosigna, Ki67, or IHC4 scores to guide decisions about extended endocrine therapy (Type: evidence-based; Evidence quality: intermediate; Strength of recommendation: moderate).

Breast Cancer Index.

Recommendation 1.24. If a patient has node-negative or node-positive breast cancer with 1-3 positive nodes and has been treated with 5 years of primary endocrine therapy without evidence of recurrence, the clinician may offer the BCI test to guide decisions about extended endocrine therapy with either tamoxifen, an AI, or a sequence of tamoxifen followed by AI (Type: evidence-based; Evidence quality: intermediate; Strength of recommendation: moderate).

Recommendation 1.25. If a patient has node-positive breast cancer with ≥ 4 positive nodes and has been treated with 5 years of primary endocrine therapy without evidence of recurrence, there is insufficient evidence to use the BCI test to guide decisions about extended endocrine therapy with either tamoxifen, an AI, or a sequence of tamoxifen followed by AI (Type: evidence-based; Evidence quality: intermediate; Strength of recommendation: strong).

Clinical treatment score post-5 years.

Recommendation 1.26. If a patient is postmenopausal and had invasive breast cancer and is recurrence-free after 5 years of adjuvant endocrine therapy, the clinical treatment score post-5 years (CTS5) web tool may be used to calculate the estimated risk of late recurrence (recurrence between years 5-10), which could assist in decisions about extended endocrine therapy (Type: evidence-based; Evidence quality: intermediate; Strength of recommendation: moderate).

Summary: ASCO Guideline 2022

ER+ and HER2–	Premenopausal or Age $\leq$ 50 Years (evidence quality/strength of recommendation)	Postmenopausal or Age $>$ 50 Years (evidence quality/strength of recommendation)
Node-negative	Oncotype DX (<i>high/strong</i>)	Oncotype DX (<i>high/strong</i>) MammaPrint ^a (<i>intermediate/strong</i>) EndoPredict (<i>intermediate/moderate</i>) Prosigna (<i>intermediate/moderate</i>) Ki67 ^b (<i>intermediate/moderate</i>) IHC4 ^b (<i>intermediate/moderate</i>) BCI ^c (<i>intermediate/moderate</i>)
1-3 positive nodes	Insufficient evidence to recommend a biomarker for use	Oncotype DX (<i>high/strong</i>) MammaPrint ^a (<i>intermediate/strong</i>) EndoPredict (<i>intermediate/moderate</i>) Ki67 ^b (<i>intermediate/strong</i>) IHC4 ^b (<i>intermediate/moderate</i>) BCI ^c (<i>intermediate/moderate</i>)
$\geq$ 4 positive nodes	Insufficient evidence to recommend a biomarker for use	
HER2+ (ER+ or ER–)	No mature evidence to recommend use of any other biomarker for this patient population	
ER–/HER2–	No mature evidence to recommend use of any other biomarker for this patient population	

Management of Hormone Receptor (HR)-Positive Localized Breast Cancer

Module 1: Risk Assessment and Genomic Assays for HR-Positive, HER2-Negative Localized Breast Cancer

Module 2: Clinician Survey Results

Module 3: Adjuvant CDK4/6 Inhibitors for High-Risk, HR-Positive, HER2-Negative Localized Breast Cancer

Module 4: Clinician Survey Results

Module 5: Tolerability and Other Practical Considerations with Adjuvant CDK4/6 Inhibitor Therapy

Module 6: Clinician Survey Results

Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

Outside of a clinical trial, which genomic assay(s) do you routinely order to assist with decision-making regarding adjuvant systemic therapy for your patients with HR-positive, HER2-negative localized breast cancer (BC)?



Dr Brufsky

Oncotype DX[®], MammaPrint[®], EndoPredict[®], Breast Cancer Index[®]



Dr DeMichele

Oncotype DX, MammaPrint, Breast Cancer Index



Dr Kalinsky

Oncotype DX



Dr Mahtani

Oncotype DX, MammaPrint, Breast Cancer Index



Dr Mouabbi

Oncotype DX, MammaPrint, Breast Cancer Index



Dr Rugo

Oncotype DX and MammaPrint



Dr Sharma

Oncotype DX and MammaPrint



Dr Stringer-Reasor

Oncotype DX and MammaPrint

Would you recommend adjuvant chemotherapy for a 40-year-old premenopausal patient with node-negative, HR-positive, HER2-negative localized BC and the 21-gene Recurrence Score® (RS) listed below?

		RS = 8	RS = 17	RS = 20
	Dr Brufsky	No	No	Yes, but offer OFS/OA as alternative
	Dr DeMichele	No	Yes, but offer OFS/OA as alternative	Yes
	Dr Kalinsky	No	No	Yes
	Dr Mahtani	No	Yes, but offer OFS/OA as alternative	Yes, but offer OFS/OA as alternative
	Dr Mouabbi	No	No	No
	Dr Rugo	No	No*	No*
	Dr Sharma	No	No	Yes, but offer OFS/OA as alternative
	Dr Stringer-Reasor	No	No	No

OFS/OA = ovarian function suppression/ovarian ablation; * Would offer OFS/OA

Would you recommend adjuvant chemotherapy for a 40-year-old premenopausal patient with HR-positive, HER2-negative localized BC with 3 positive nodes and the 21-gene RS listed below?

		RS = 8	RS = 17	RS = 20
	Dr Brufsky	Yes, but offer OFS/OA as alternative	Yes, but offer OFS/OA as alternative	Yes, but offer OFS/OA as alternative
	Dr DeMichele	Yes	Yes	Yes
	Dr Kalinsky	Yes	Yes	Yes
	Dr Mahtani	Yes	Yes	Yes
	Dr Mouabbi	Yes, but offer OFS/OA as alternative	Yes, but offer OFS/OA as alternative	Yes, but offer OFS/OA as alternative
	Dr Rugo	Yes	Yes	Yes
	Dr Sharma	Yes	Yes	Yes
	Dr Stringer-Reasor	Yes	Yes	Yes

OFS/OA = ovarian function suppression/ovarian ablation

Would you recommend adjuvant chemotherapy for a 65-year-old postmenopausal patient with HR-positive, HER2-negative localized BC with 3 positive nodes and the 21-gene RS listed below?

		RS = 8	RS = 17	RS = 20
	Dr Brufsky	No	No	No
	Dr DeMichele	No	No	No
	Dr Kalinsky	No	No	Yes
	Dr Mahtani	No	No	Yes
	Dr Mouabbi	No	No	No
	Dr Rugo	No	No	No
	Dr Sharma	No	No	No
	Dr Stringer-Reasor	No	No	No

Have you ordered or would you order a genomic assay to assist with treatment decision-making in the localized setting for any patients with HR-positive, HER2-negative localized BC and 4 or more positive nodes?



Dr Brufsky

I have



Dr DeMichele

I have not but would for the right patient



Dr Kalinsky

I have not but would for the right patient



Dr Mahtani

I have not and would not



Dr Mouabbi

I have not and would not



Dr Rugo

I have



Dr Sharma

I have not and would not



Dr Stringer-Reasor

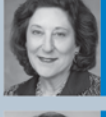
I have

Outside of a clinical trial, which genomic assay(s) do you routinely order to assist with decision-making in the neoadjuvant setting for your patients with HR-positive, HER2-negative localized BC?

	Dr Brufsky	MammaPrint
	Dr DeMichele	MammaPrint**
	Dr Kalinsky	MammaPrint
	Dr Mahtani	MammaPrint
	Dr Mouabbi	MammaPrint
	Dr Rugo	MammaPrint and <i>Oncotype DX</i> *
	Dr Sharma	<i>Oncotype DX</i> and MammaPrint
	Dr Stringer-Reasor	MammaPrint

* All my patients with HR+ disease screen for I-SPY with rare exceptions and we order Mammaprint and Blueprint. I will occasionally order *Oncotype DX*. ** I-SPY only, I do not routinely order genomic assays in the neoadjuvant setting

Outside of a clinical trial, do you routinely employ Breast Cancer Index (BCI) to determine whether to continue adjuvant endocrine therapy beyond 5 years for patients with HR-positive, HER2-negative localized BC? If so, in which clinical situations?

	Dr Brufsky	Yes, for node-positive disease when MammaPrint not available
	Dr DeMichele	Yes, primarily for patients with intermediate risk disease who would like more information to assist with making the decision
	Dr Kalinsky	Yes, in situations where I'm on the fence about extending ET
	Dr Mahtani	Yes, for patients with N0 disease or up to 3 pos nodes
	Dr Mouabbi	Yes, for patients for whom we are considering extended ET
	Dr Rugo	No*
	Dr Sharma	Yes, for patients with high-risk, node-negative disease
	Dr Stringer-Reasor	Yes, for patients with HR-positive disease who may be lymph node-negative for whom extended therapy might be beneficial

ET = endocrine therapy; * No due to reimbursement issues, but I would for patients with poor tolerance to ET and high-risk disease

Approximately what proportion of the time would you estimate that having the results from BCI cause you to change your recommendation regarding extended-adjuvant endocrine therapy (ET)?

		Recommending ET to not recommending	Not recommending ET to recommending
	Dr Brufsky	25%	25%
	Dr DeMichele	20%	20%
	Dr Kalinsky	10%	10%
	Dr Mahtani	20%	20%
	Dr Mouabbi	80%	20%
	Dr Rugo	NA	NA
	Dr Sharma	10%	10%
	Dr Stringer-Reasor	10%	10%

NA = not applicable

Outside of a clinical trial, do you routinely employ any genomic assays other than Breast Cancer Index to determine whether to continue adjuvant endocrine therapy beyond 5 years for patients with HR-positive, HER2-negative localized BC?



Dr Brufsky

Yes, MammaPrint



Dr DeMichele

No



Dr Kalinsky

No



Dr Mahtani

No



Dr Mouabbi

Yes, MammaPrint



Dr Rugo

No



Dr Sharma

No



Dr Stringer-Reasor

Yes, MammaPrint

Have you ordered or would you order a circulating tumor DNA (ctDNA)-based molecular residual disease (MRD) assay to assist with clinical decision-making for a patient with localized BC? If you were to order a ctDNA-based MRD assay for a patient with localized BC, which specific assay(s) would you use?

		Order a ctDNA-based MRD assay?	Assay
	Dr Brufsky	I have	Signatera™
	Dr DeMichele	I have	Personalis® or Signatera
	Dr Kalinsky	I have not but would for the right patient	Signatera
	Dr Mahtani	I have not and would not	NA
	Dr Mouabbi	I have	Signatera
	Dr Rugo	I have	Signatera
	Dr Sharma	I have not and would not	NA
	Dr Stringer-Reasor	I have	Signatera or Guardant Reveal™

NA = not applicable

Management of Hormone Receptor (HR)-Positive Localized Breast Cancer

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Module 4: Clinician Survey Results

Module 5: Tolerability and Other Practical Considerations with Adjuvant CDK4/6 Inhibitor Therapy

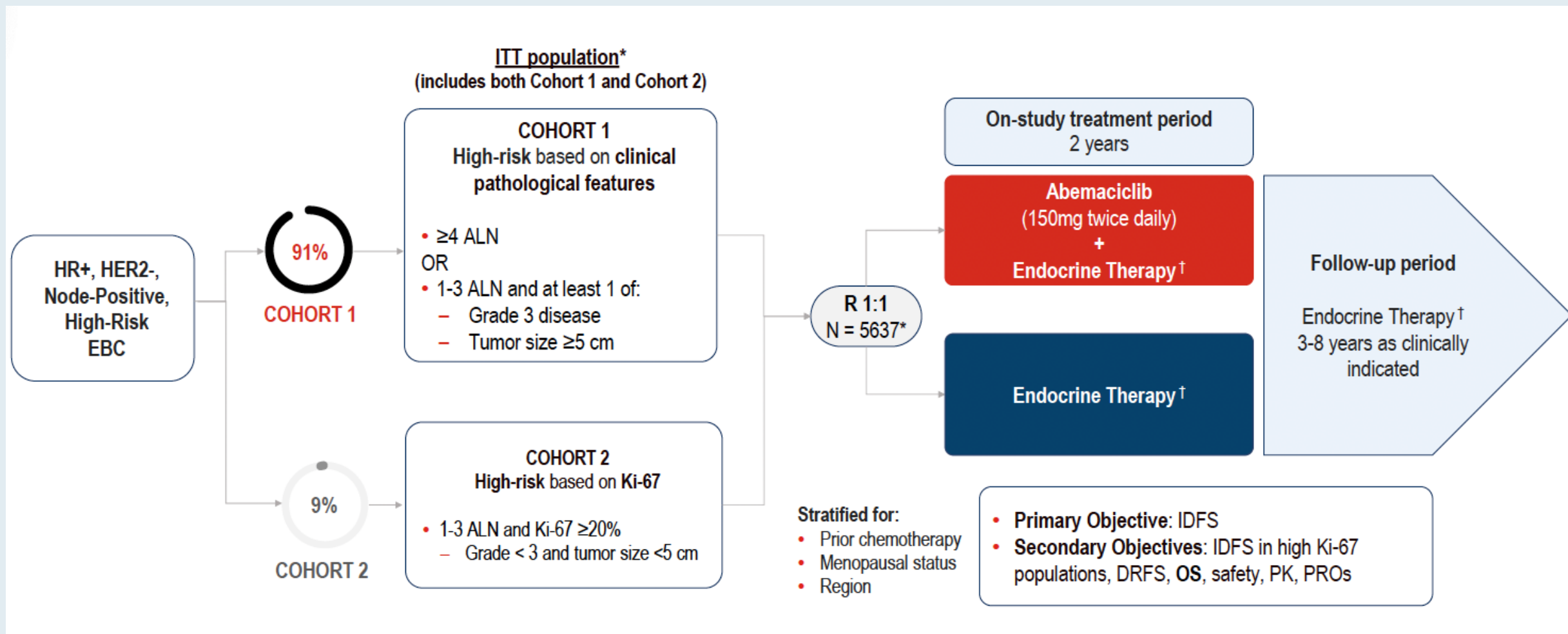
Module 6: Clinician Survey Results

Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

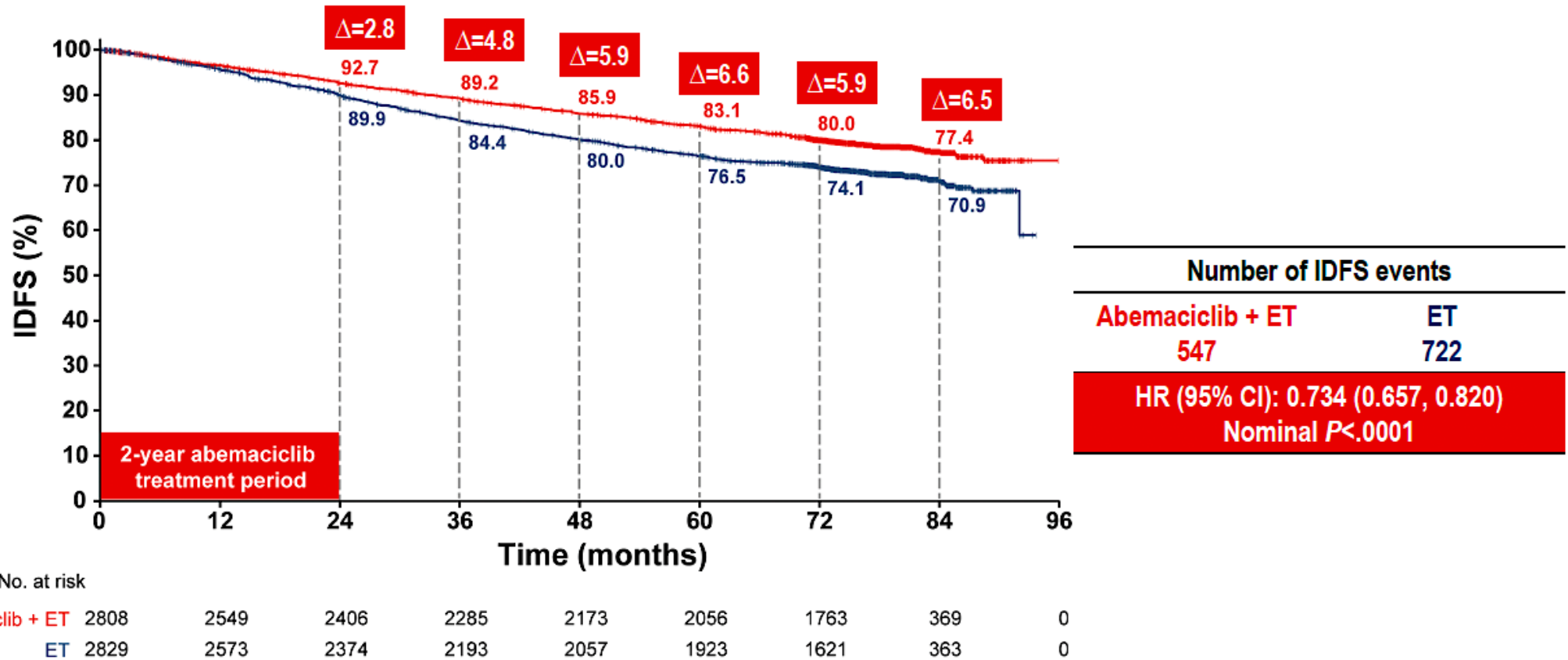
Key Datasets

- Johnston S et al. **monarchE: Primary overall survival** (OS) results of adjuvant abemaciclib + endocrine therapy (ET) for HR+, HER2-, high-risk early breast cancer (EBC). ESMO 2025;Abstract LBA13.
- Johnston S et al. **Overall survival** with **abemaciclib** in early breast cancer. *Ann Oncol* 2026;37(2):155-65.
- Cortés J et al. **monarchE: Subgroup analysis** of adjuvant abemaciclib + endocrine therapy for HR+, HER2-, high-risk early breast cancer by nodal status. San Antonio Breast Cancer Symposium 2025;Abstract PS1-08-08.
- Crown JP et al. **Adjuvant ribociclib (RIB) plus nonsteroidal aromatase inhibitor (NSAI)** in patients (pts) with HR+/HER2- early breast cancer (EBC): **NATALEE 5-year outcomes**. ESMO 2025;Abstract LBA14.
- Chia SKL et al. Prognostic and predictive impact of baseline gene expression (exp) in the **NATALEE trial** of adjuvant (adj) ribociclib (RIB) + nonsteroidal aromatase inhibitor (NSAI) in HR+/HER2- early breast cancer (EBC). ASCO 2026;Abstract 501.

monarchE Study Design



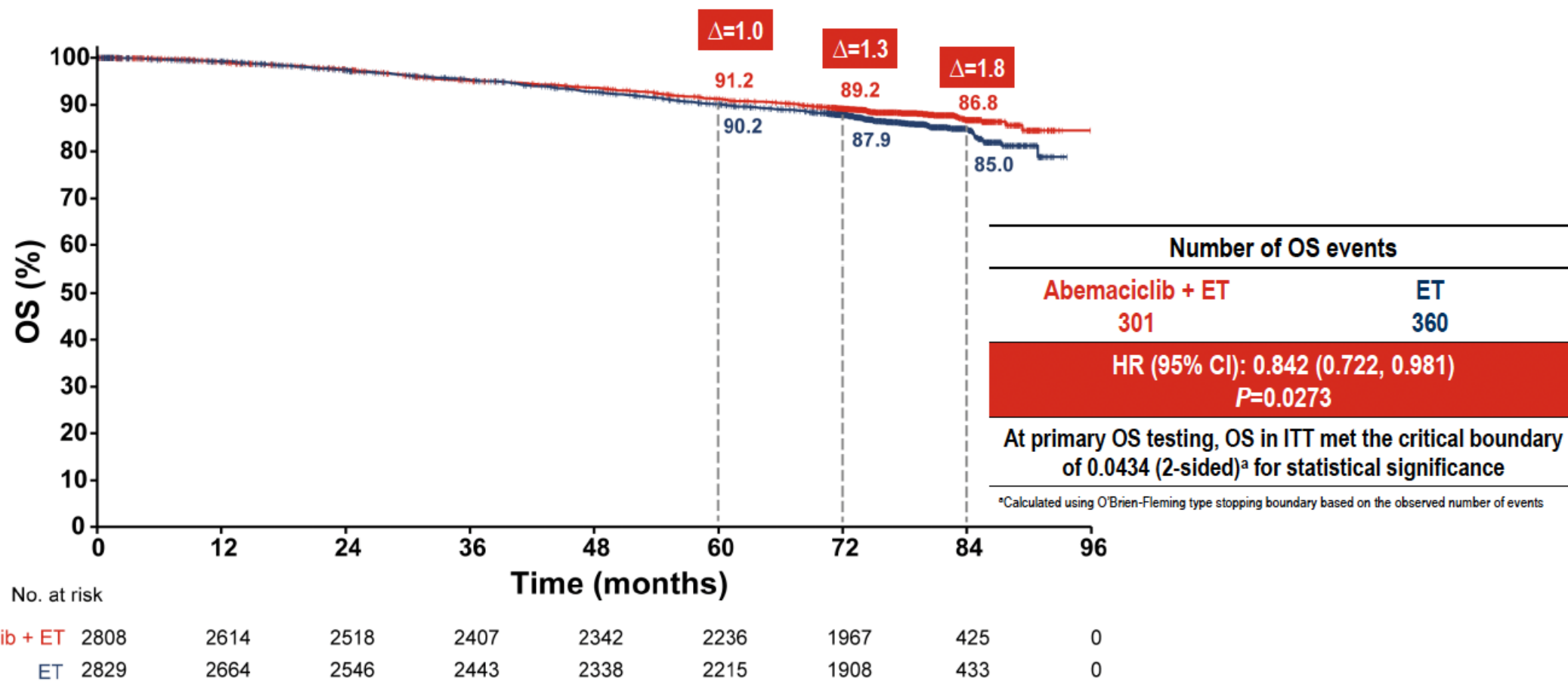
monarchE: Invasive Disease-Free Survival (IDFS) Outcomes



Abemaciclib + ET reduced the risk of IDFS events by 26.6% compared to ET alone

ET = endocrine therapy

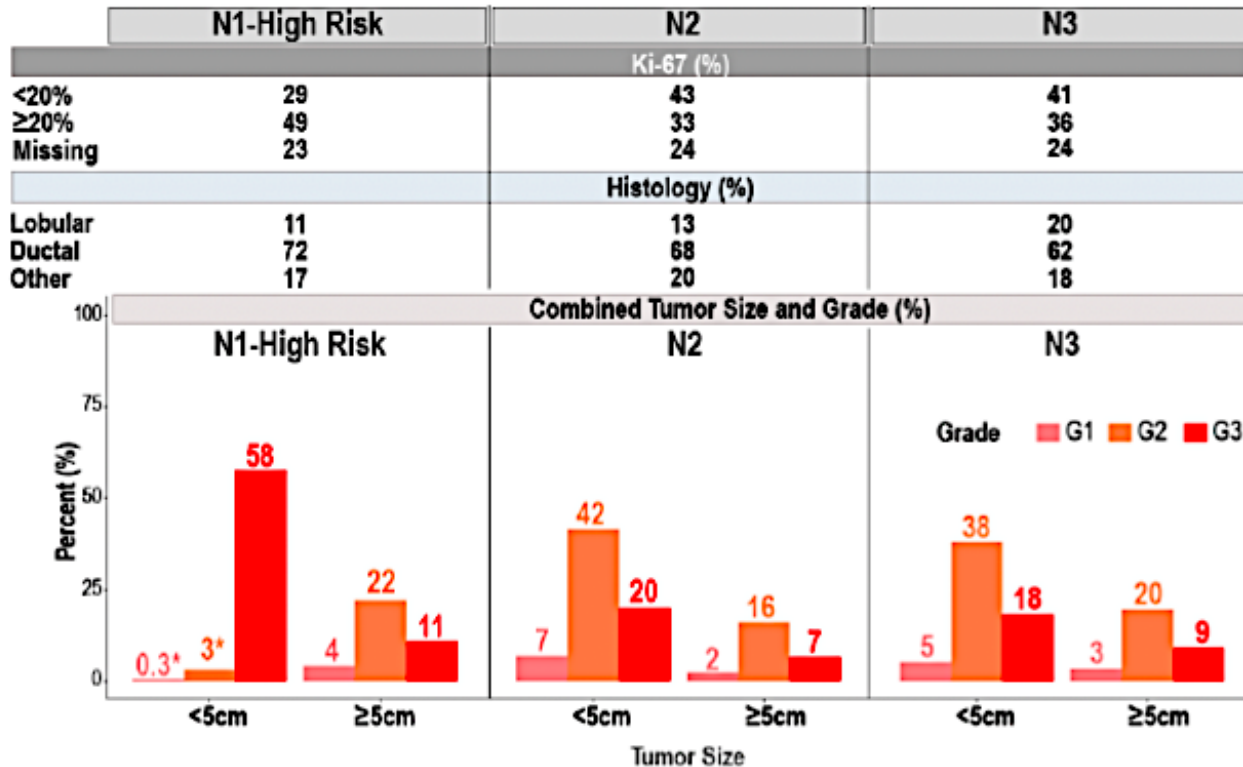
monarchE: Overall Survival (OS) Outcomes



At a median follow-up of 6.3 years, abemaciclib + ET reduced the risk of death by 15.8% compared to ET alone

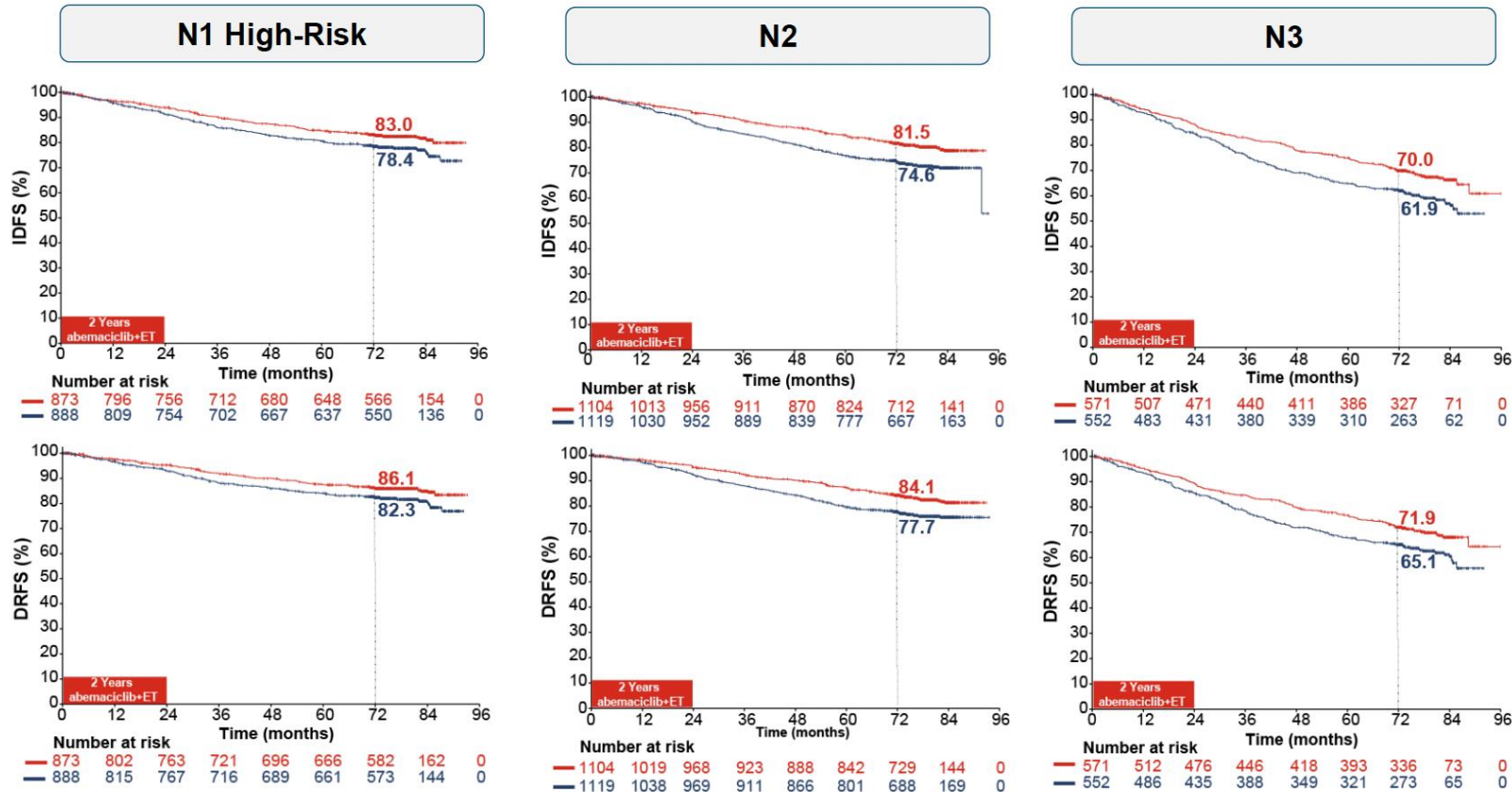
monarchE: Subgroup Analysis by Nodal Status

Tumor Characteristics in Cohort 1



- monarchE eligible patients with N1 high risk disease presented more Grade 3 tumors and Ki-67 ≥20% compared to N2 and N3
- Distribution of ductal/lobular histology was similar in N1-high risk and N2 while N3 had more lobular tumors
- Over 40% of patients with N1-High risk disease received neoadjuvant chemotherapy compared to less than 30% of those with N3 disease
- Conversely, the use of adjuvant chemotherapy and radiation therapy was higher among patients with N2 and N3 disease

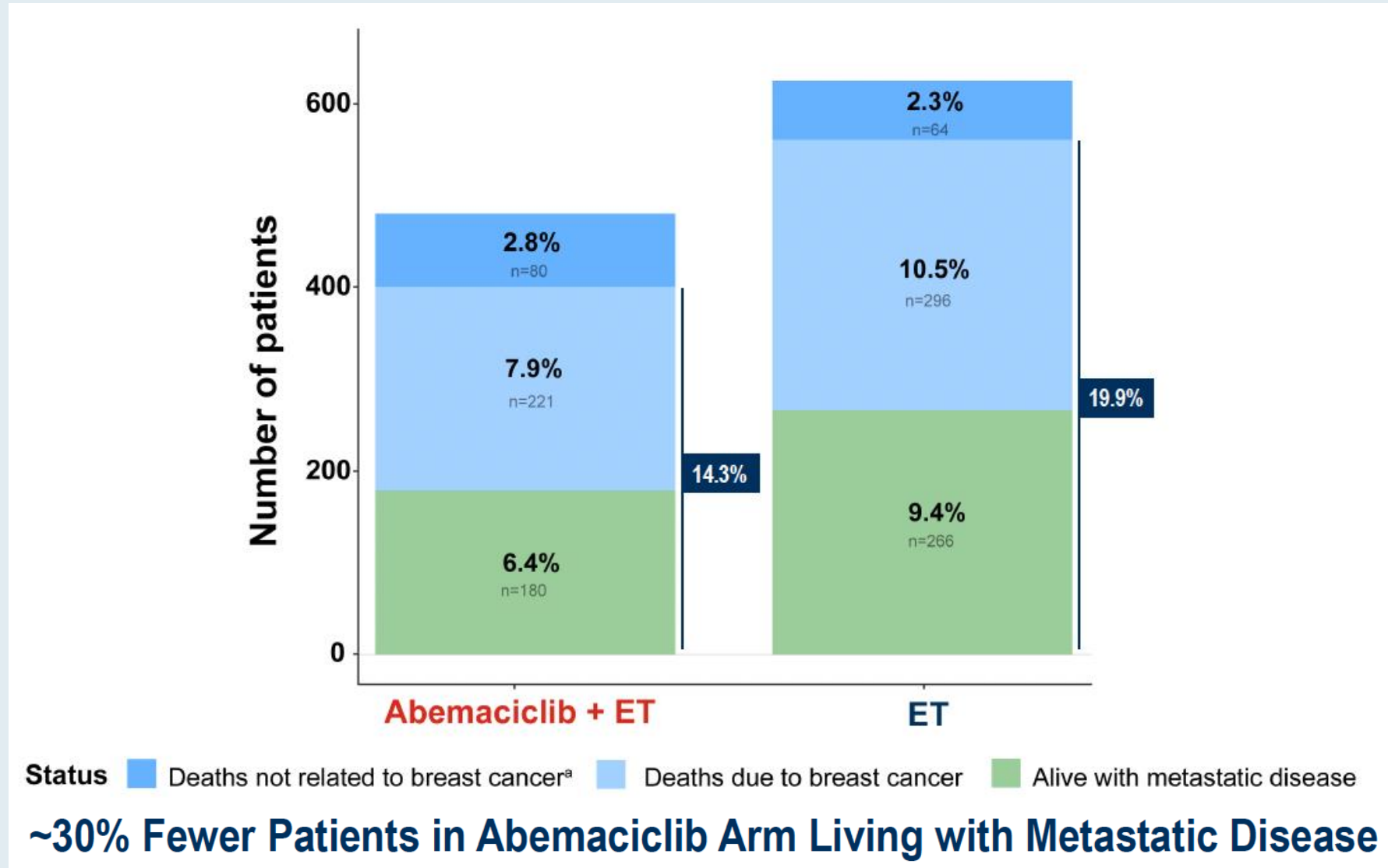
monarchE: IDFS and DRFS by Nodal Status



- In the ET alone arm, patients with N1-High risk and N2 disease had comparable risk of recurrence and death, while higher risk was observed in N3 subgroup
- Abemaciclib plus ET reduced the risk of IDFS events by 24.8% (N1), 31.5% (N2) and 27.4% (N3), compared to ET

DRFS = distant relapse-free survival

monarchE: Survival Status



NATALEE Study Design

Adult patients with stage II and III HR+/HER2- EBC

- Prior ET allowed up to 12 months
- **Anatomical stage IIA^a**
 - N0 with:
 - Grade 2 and evidence of high risk:
 - Ki-67 $\geq$ 20%
 - Oncotype DX Breast Recurrence Score $\geq$ 26 or
 - High risk via genomic risk profiling
 - Grade 3
 - N1
- **Anatomical stage IIB^a**
 - N0 or N1
- **Anatomical stage III**
 - N0, N1, N2, or N3

R
1:1

RIB

400 mg/day
3 weeks on/1 week off for 3 y

+

NSAI

Letrozole or anastrozole^b for $\geq$ 5 y
+ goserelin in men and premenopausal women

NSAI

Letrozole or anastrozole^b for $\geq$ 5 y
+ goserelin in men and premenopausal women

Primary End Point

iDFS using STEEP criteria

Secondary End Points

- RFS, DDFS, OS
- PROs
- Safety and tolerability
- PK

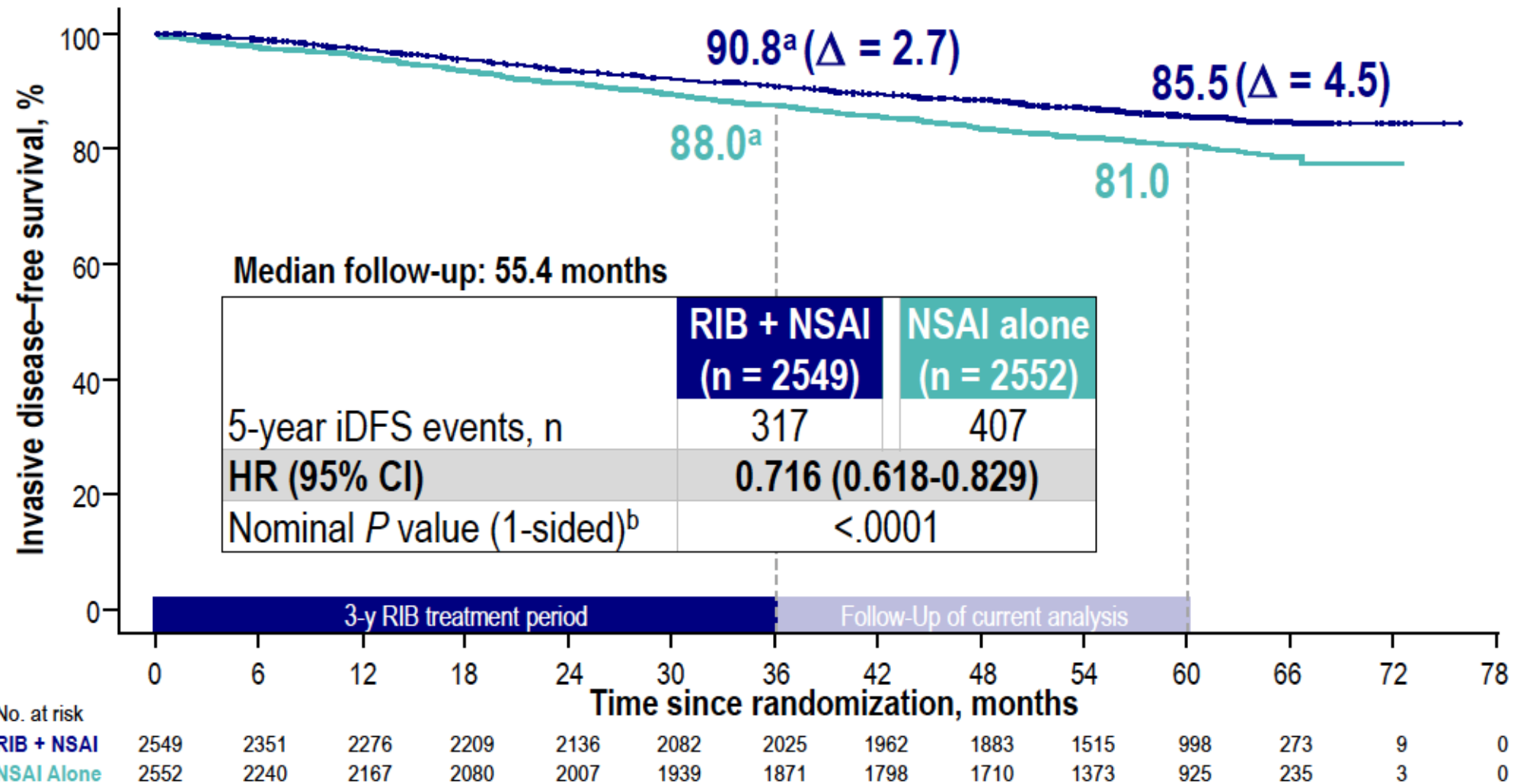
Exploratory End Points

- DRFS
- Gene expression and alterations in tumor ctDNA/ctRNA samples

Efficacy outcomes for the 5-year analysis were estimated by the Kaplan-Meier method, and results are descriptive. The Cox proportional hazards model was used to estimate the HRs and 95% CIs.

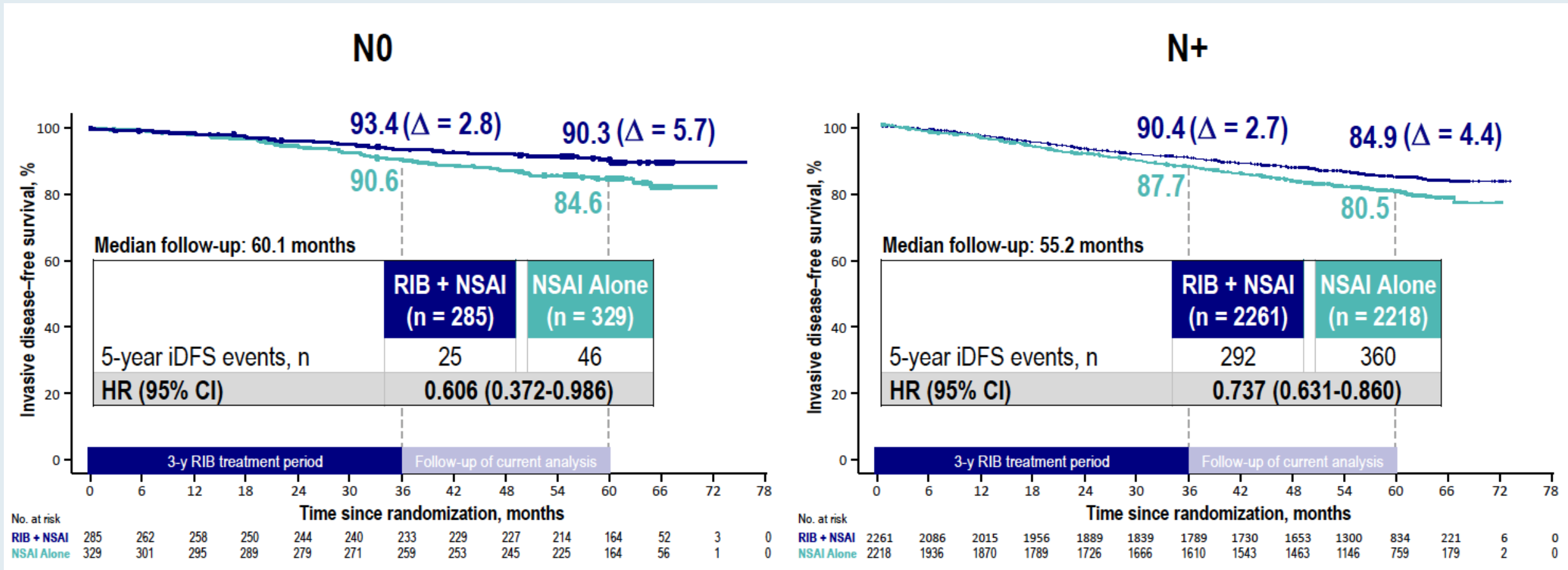
RIB = ribociclib; NSAI = nonsteroidal aromatase inhibitor

NATALEE: IDFS Outcomes

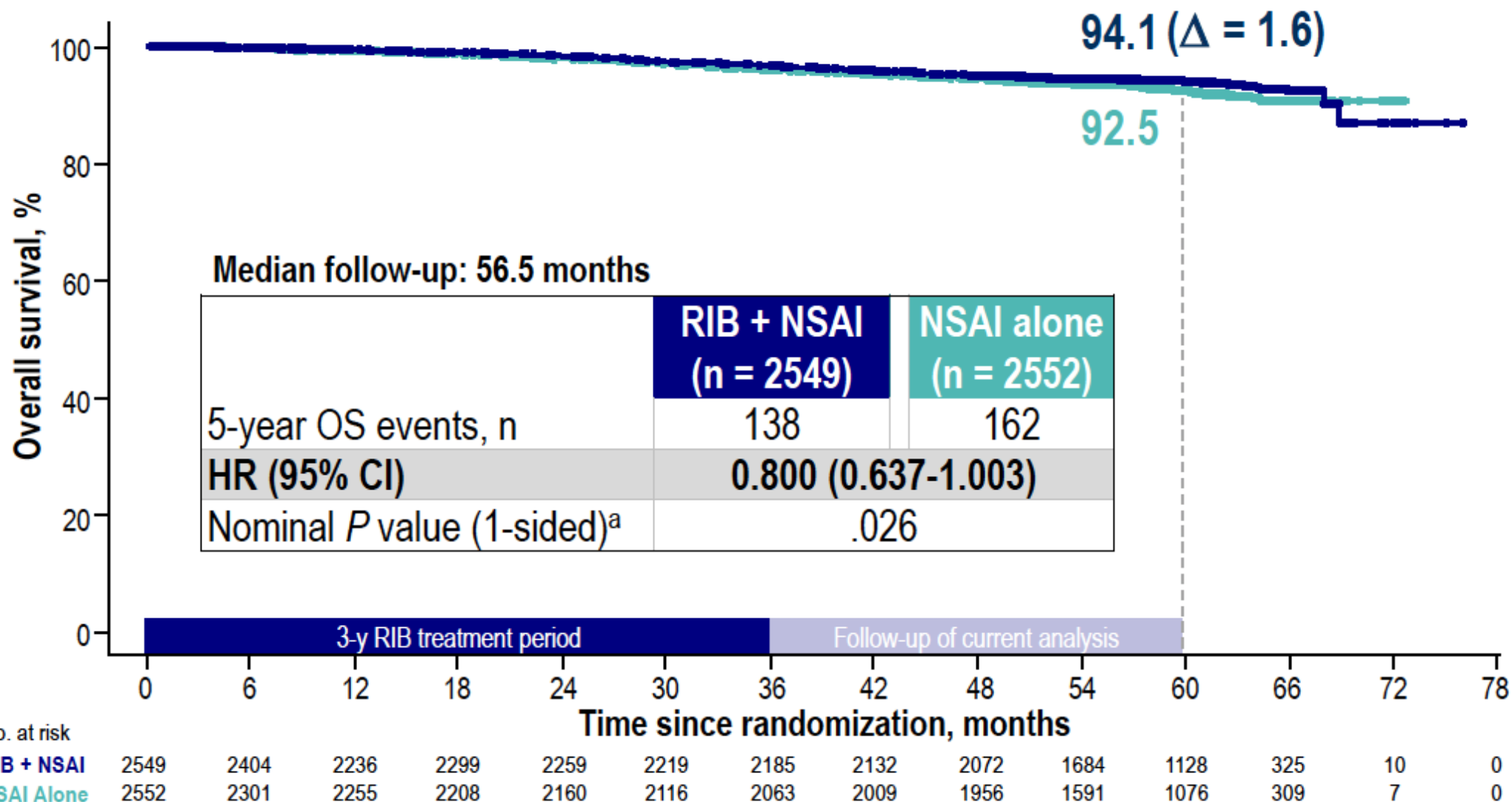


RIB = ribociclib; NSAI = nonsteroidal aromatase inhibitor

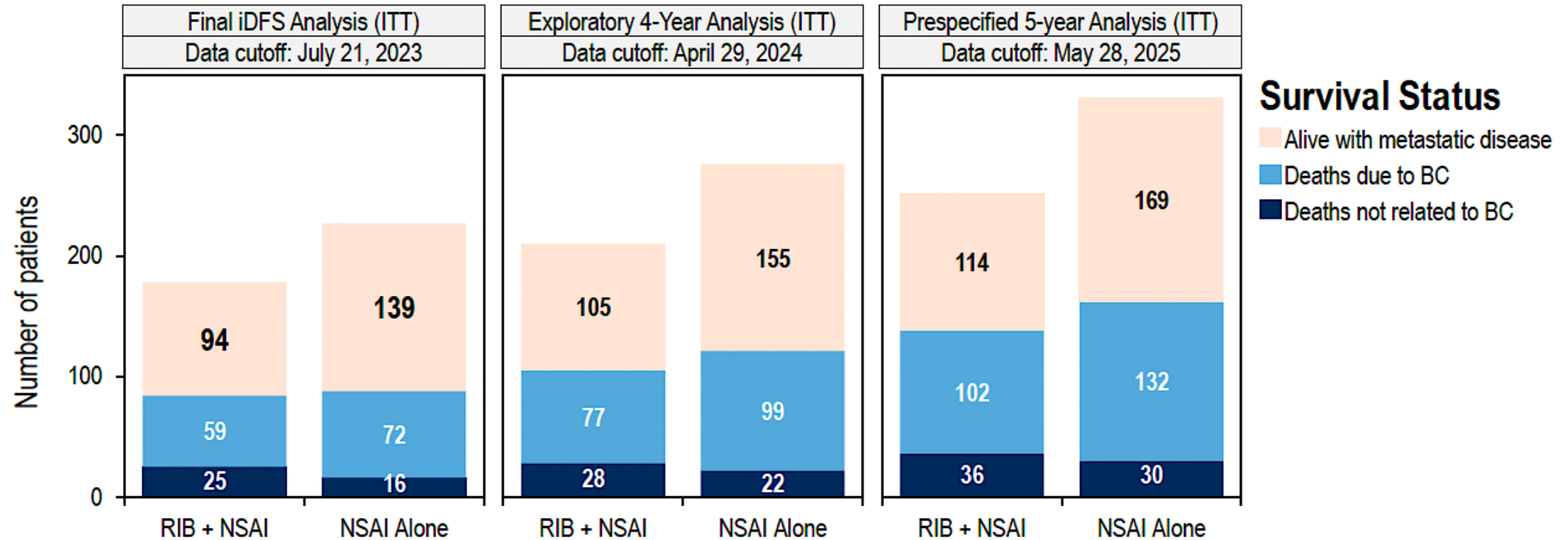
NATALEE: IDFS by Nodal Status



NATALEE: OS Outcomes

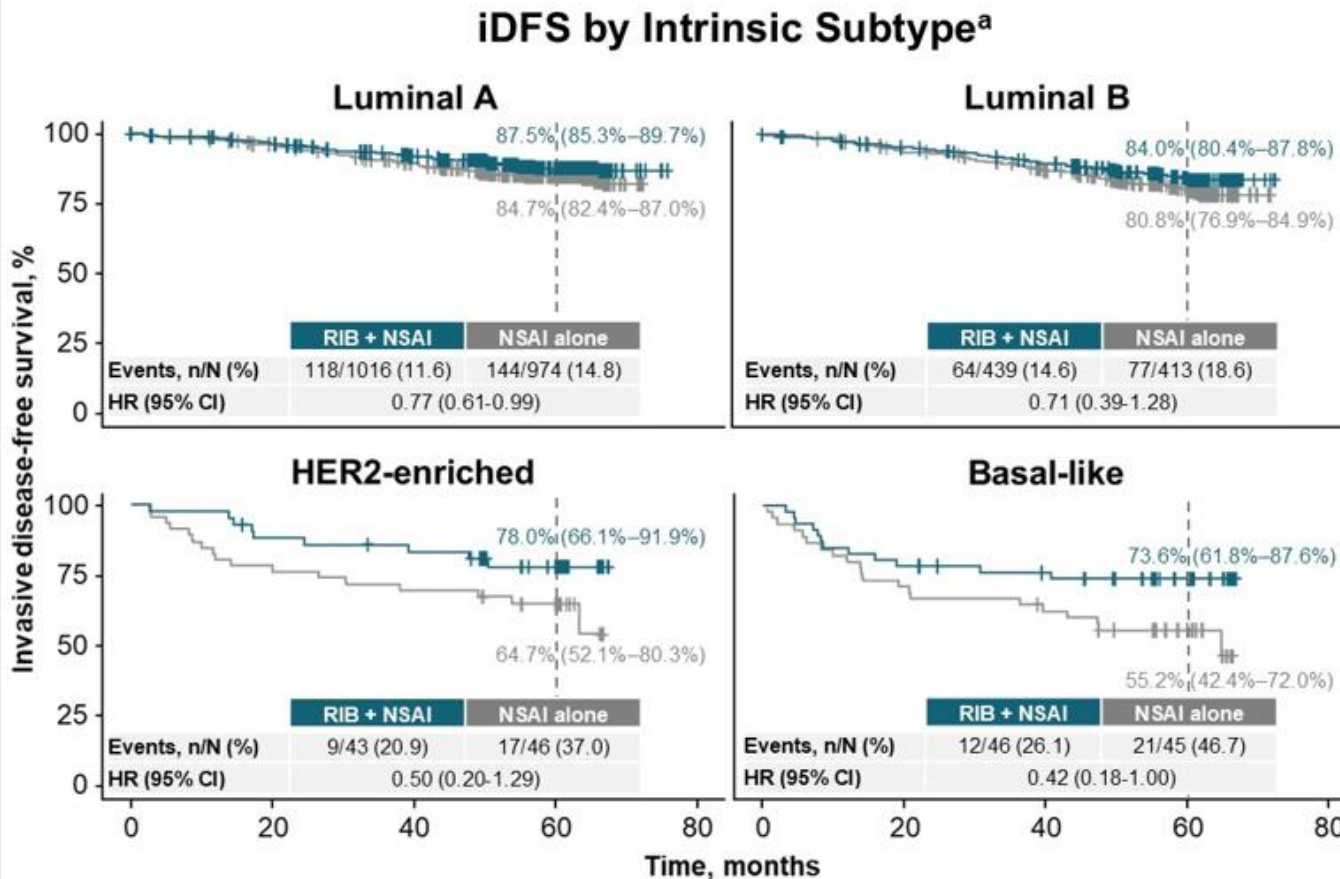


NATALEE: Survival Status over Time

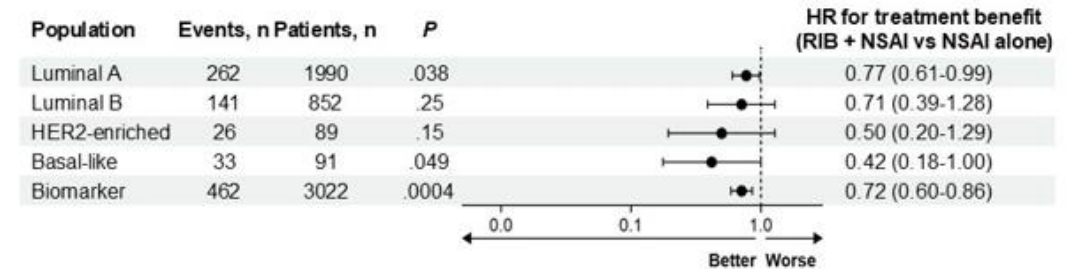


Approximate median follow-up (months)	36	44	57
OS HR (95% CI)	0.89 (0.66-1.20)	0.83 (0.64-1.07)	0.800 (0.637-1.003)

NATALEE: Ribociclib Treatment Benefit Is Observed Across PAM50-Based Intrinsic Subtypes



Ribociclib Treatment Benefit Across Intrinsic Subtypes^{a,b}

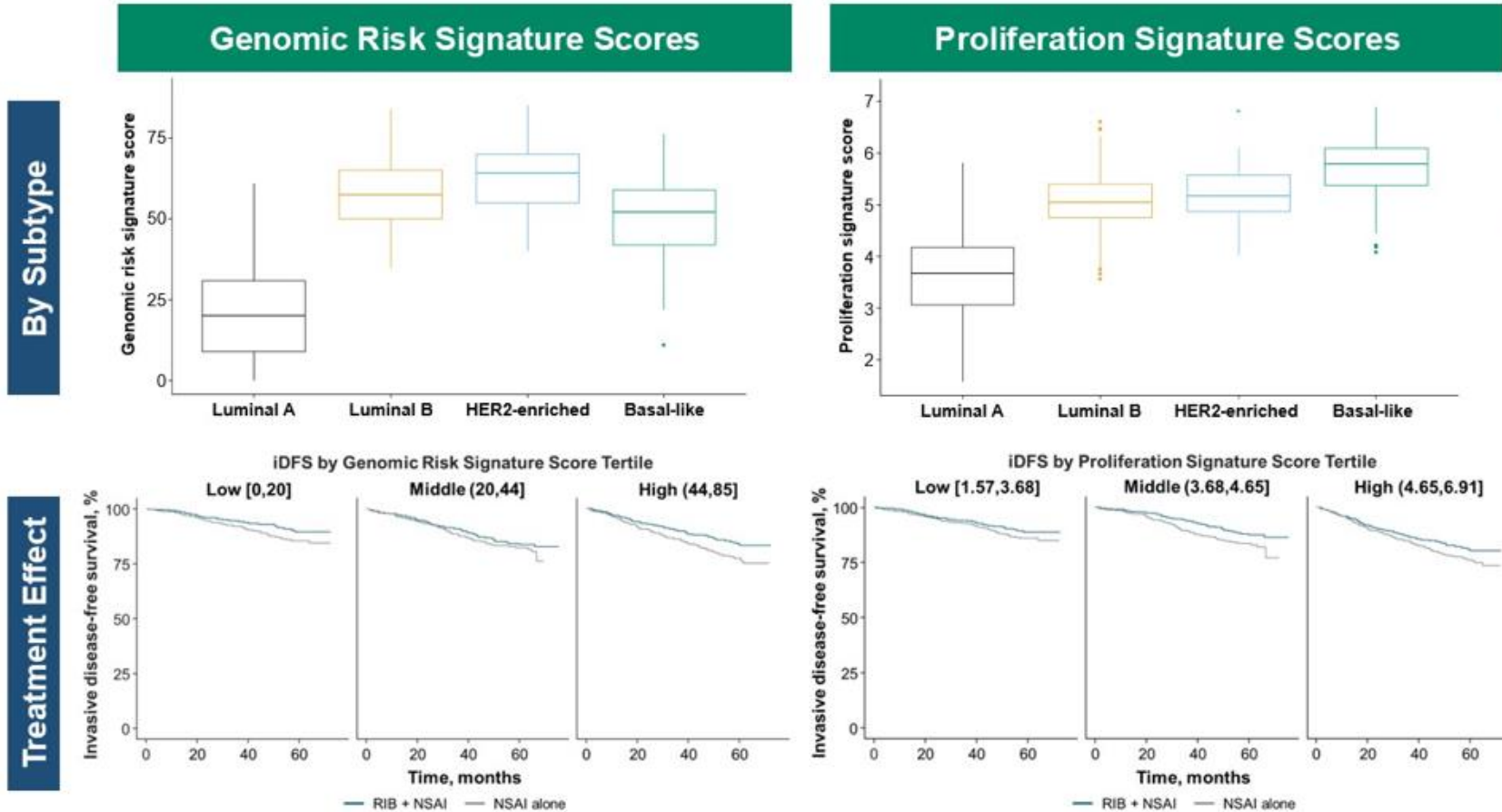


- Across treatment arms, PAM50 subtypes were strongly prognostic (hazard ratio vs luminal A: luminal B, 1.39; HER2-enriched, 2.62; basal-like, 3.92^c)
- No significant interaction between subtype and treatment was observed ($P=.34^d$)

HER2, human epidermal growth factor receptor 2; HR, hazard ratio; iDFS, invasive disease-free survival; NSAI, nonsteroidal aromatase inhibitor; PAM50, Prediction Analysis of Microarray 50; RIB, ribociclib.

^a HRs were estimated using Cox proportional hazards models stratified by the four main strata and including a term for biomarker-by-treatment interaction. ^b The p-values for treatment effects within individual biomarker subgroups are model-based nominal two-sided Wald p-values without multiplicity correction. ^c HRs were obtained from Cox proportional hazards models stratified by the four main strata and adjusted for treatment group. ^d Nominal two-sided p-value from likelihood ratio test without multiplicity correction.

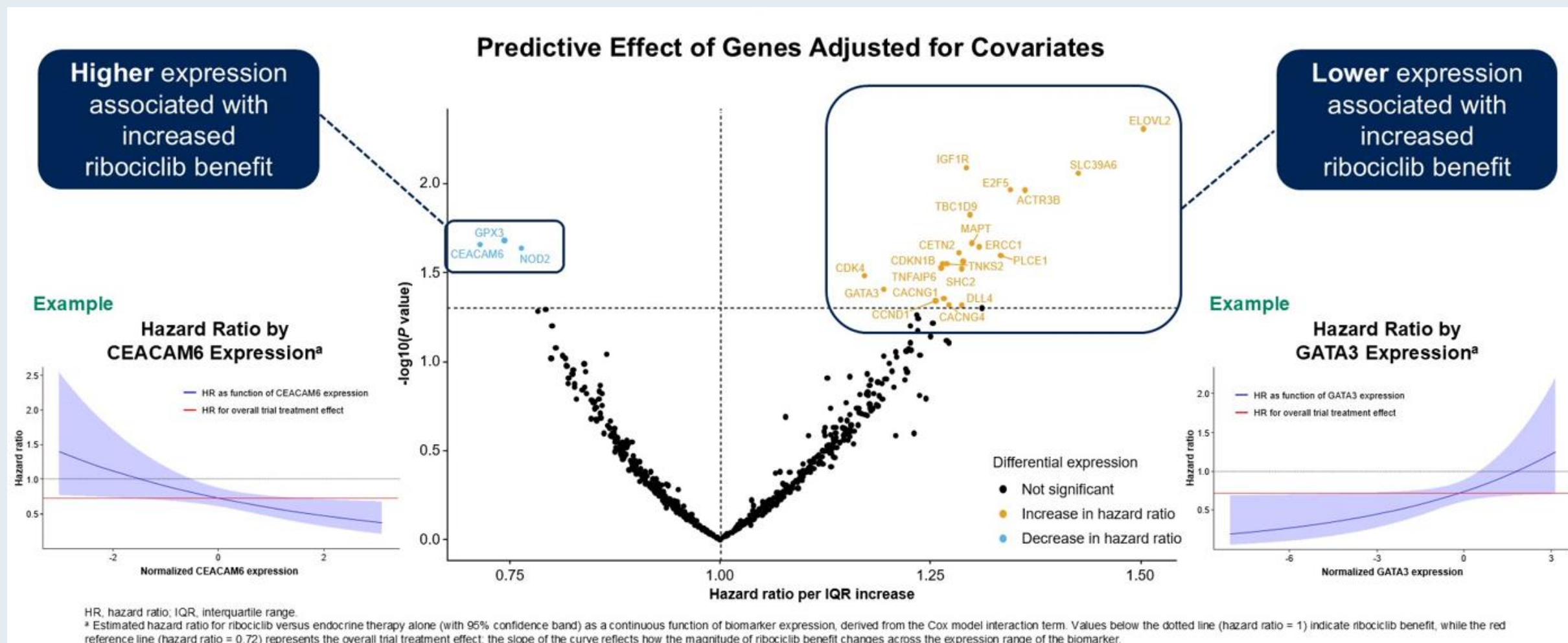
NATALEE: Higher Genomic Risk Signature and Proliferation Signature Scores Are Associated with Increased Ribociclib Benefit



- Gene signatures were associated with PAM50 subtypes
- Higher genomic risk signature or proliferation signature scores showed a trend for increased ribociclib benefit, with no significant treatment interaction ($P=.42$ and $P=.84$, respectively^a)
- Of note, patients with N0 disease had significantly higher genomic risk scores and proliferation scores than those with N1-N3 disease

HER2, human epidermal growth factor receptor 2; PAM50, Prediction Analysis of Microarray 50.
^a Nominal two-sided P value from likelihood ratio test without multiplicity correction.

NATALEE: Differential Gene Expression Affects Ribociclib Benefit



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Module 5: Tolerability and Other Practical Considerations with Adjuvant CDK4/6 Inhibitor Therapy

Module 6: Clinician Survey Results

Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

Regulatory and reimbursement issues aside, would you generally recommend an adjuvant CDK4/6 inhibitor in addition to adjuvant endocrine therapy to a patient with 5.5-cm, Grade 2, HR-positive, HER2-negative localized BC and the following nodal status?

		Node-negative	2 positive nodes	4 positive nodes
	Dr Brufsky	Yes, ribociclib	Yes, abemaciclib	Yes, abemaciclib
	Dr DeMichele	Yes, ribociclib	Yes, either	Yes, abemaciclib
	Dr Kalinsky	Yes, ribociclib	Yes, abemaciclib	Yes, abemaciclib
	Dr Mahtani	Yes, ribociclib	Yes, either	Yes, either
	Dr Mouabbi	Yes, ribociclib	Yes, either	Yes, either
	Dr Rugo	Yes, ribociclib	Yes, either	Yes, abemaciclib
	Dr Sharma	Yes, ribociclib	Yes, either	Yes, either
	Dr Stringer-Reasor	Yes, ribociclib	Yes, ribociclib	Yes, either

Regulatory and reimbursement issues aside, would you generally recommend an adjuvant CDK4/6 inhibitor in addition to adjuvant endocrine therapy to a patient with 2.5-cm Grade 2, HR-positive, HER2-negative localized BC and the following nodal status?

		Node-negative	2 positive nodes	4 positive nodes
	Dr Brufsky	No	No	Yes, abemaciclib
	Dr DeMichele	No	Yes, either	Yes, abemaciclib
	Dr Kalinsky	Yes, ribociclib	Yes, abemaciclib	Yes, abemaciclib
	Dr Mahtani	No	Yes, ribociclib	Yes, either
	Dr Mouabbi	No	Yes, either	Yes, either
	Dr Rugo	Yes, ribociclib	Yes, either	Yes, abemaciclib
	Dr Sharma	No	Yes, either	Yes, either
	Dr Stringer-Reasor	Yes, ribociclib	Yes, ribociclib	Yes, either

Management of Hormone Receptor (HR)-Positive Localized Breast Cancer

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Module 2: Clinician Survey Results

Module 3: Adjuvant CDK4/6 Inhibitors for High-Risk, HR-Positive, HER2-Negative Localized Breast Cancer

Module 4: Clinician Survey Results

Module 5: Tolerability and Other Practical Considerations with Adjuvant CDK4/6 Inhibitor Therapy

Module 6: Clinician Survey Results

Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

Key Datasets

- Rugo HS et al. **Adjuvant abemaciclib** combined **with endocrine therapy** for high-risk early breast cancer: **Safety and patient-reported outcomes** from the **monarchE** study. *Ann Oncol* 2022;33(6):616-27.
- Barrios C et al. **NATALEE update: Safety and treatment (tx) duration** of **ribociclib (RIB) + nonsteroidal aromatase inhibitor (NSAI)** in patients (pts) with HR+/HER2– early breast cancer (EBC). ESMO Breast 2024;Abstract 113MO.
- Mayer EL et al. **TRADE: A phase II** trial to assess the **tolerability of abemaciclib dose escalation** in early-stage HR-positive/HER2-negative breast cancer. *Ann Oncol* 2025;31(1):117-24.

monarchE: Overall Safety Profile

Table 1. Clinically relevant adverse events observed in the abemaciclib + ET arm regardless of causality

	Abemaciclib + ET (N = 2791)				ET alone (N = 2800)			
	Any grade	G1	G2	G ≥ 3	Any grade	G1	G2	G ≥ 3
≥10% in the abemaciclib + ET arm								
Patients with ≥1 AE, ^a n (%)	2745 (98.4)	165 (5.9)	1192 (42.7)	1388 (49.7)	2486 (88.8)	634 (22.6)	1396 (49.9)	456 (16.3)
Diarrhea	2331 (83.5)	1255 (45.0)	857 (30.7)	219 (7.8) ^b	242 (8.6)	184 (6.6)	52 (1.9)	6 (0.2)
Infections ^c	1429 (51.2)	245 (8.8)	1029 (36.9)	155 (5.6)	1102 (39.4)	229 (8.2)	790 (28.2)	83 (3.0) ^d
Neutropenia	1278 (45.8)	178 (6.4)	554 (19.8)	546 (19.6)	157 (5.6)	66 (2.4)	68 (2.4)	23 (0.8)
Fatigue	1133 (40.6)	632 (22.6)	421 (15.1)	80 (2.9)	499 (17.8)	378 (13.5)	117 (4.2)	4 (0.1)
Nausea	824 (29.5)	623 (22.3)	187 (6.7)	14 (0.5)	252 (9.0)	198 (7.1)	52 (1.9)	2 (0.1)
Anemia	681 (24.4)	383 (13.7)	241 (8.6)	57 (2.0)	104 (3.7)	75 (2.7)	19 (0.7)	10 (0.4)
Headache	546 (19.6)	415 (14.9)	123 (4.4)	8 (0.3)	421 (15.0)	321 (11.5)	95 (3.4)	5 (0.2)
Vomiting	491 (17.6)	375 (13.4)	101 (3.6)	15 (0.5)	130 (4.6)	98 (3.5)	29 (1.0)	3 (0.1)
Stomatitis ^e	385 (13.8)	309 (11.1)	72 (2.6)	4 (0.1)	151 (5.4)	133 (4.8)	18 (0.6)	0 (0.0)
Thrombocytopenia	373 (13.4)	276 (9.9)	61 (2.2)	36 (1.3)	52 (1.9)	40 (1.4)	8 (0.3)	4 (0.1)
Decreased appetite	329 (11.8)	243 (8.7)	70 (2.5)	16 (0.6)	68 (2.4)	53 (1.9)	13 (0.5)	2 (0.1)
Alopecia	313 (11.2)	283 (10.1)	30 (1.1)	N/A	75 (2.7)	68 (2.4)	7 (0.3)	0 (0.0)
Alanine aminotransferase increase (ALT)	343 (12.3)	184 (6.6)	82 (2.9)	77 (2.8)	157 (5.6)	113 (4.0)	25 (0.9)	19 (0.7)
Aspartate aminotransferase increase (AST)	330 (11.8)	220 (7.9)	58 (2.1)	52 (1.9)	137 (4.9)	103 (3.7)	19 (0.7)	15 (0.5)
Rash	312 (11.2)	239 (8.6)	61 (2.2)	11 (0.4)	127 (4.5)	104 (3.7)	23 (0.8)	0 (0.0)
Other AEs of interest—composite terms								
VTE ^f	71 (2.5)	2 (0.1)	31 (1.1)	38 (1.4) ^h	17 (0.6)	0 (0.0)	9 (0.3)	8 (0.3)
PE ^g	28 (1.0)	N/A	N/A	28 (1.0) ⁱ	4 (0.1)	N/A	N/A	4 (0.1)
ILD ^j	89 (3.2)	44 (1.6)	34 (1.2)	11 (0.4)	37 (1.3)	26 (0.9)	10 (0.4)	1 (0.0)
Pneumonitis	49 (1.8)	21 (0.8)	21 (0.8)	7 (0.3)	10 (0.4)	7 (0.3)	3 (0.1)	0 (0.0)
Radiation pneumonitis	25 (0.9)	13 (0.5)	10 (0.4)	2 (0.1)	15 (0.5)	9 (0.3)	5 (0.2)	1 (0.0)
Increased transaminases ^k	433 (15.5)	241 (8.6)	94 (3.4)	98 (3.5)	209 (7.5)	143 (5.1)	38 (1.4)	28 (1.0)

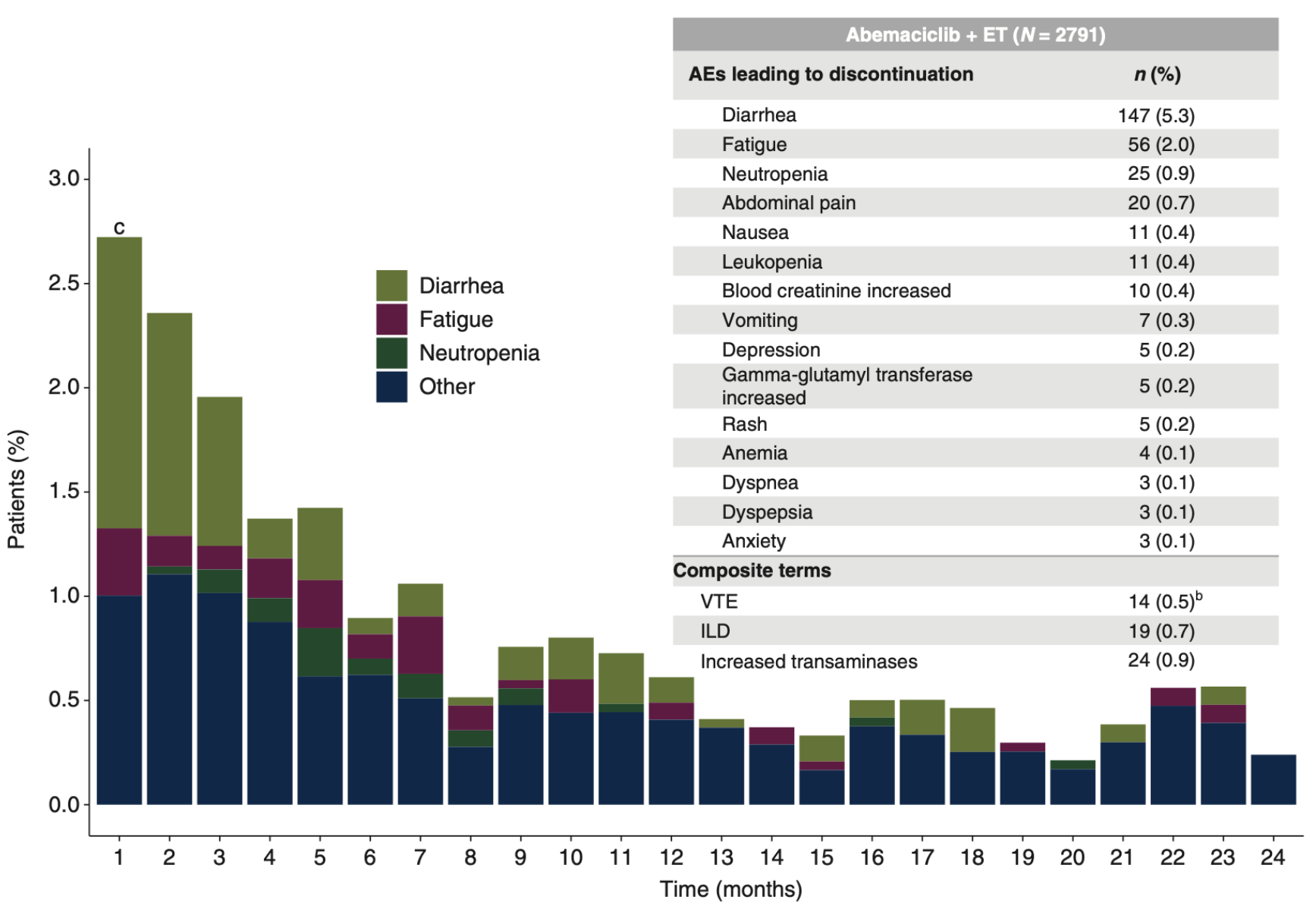
monarchE: Serious and Fatal Adverse Events (AEs) in Long-Term Follow-Up

	Abemaciclib + ET		ET	
	N=2791, n (%)		N=2800, n (%)	
	On Therapy ^a	Post-Discontinuation ^b	On Therapy ^a	Post-Discontinuation ^b
≥1 SAE* LTFU, regardless of causality	NA	197 (7.5)	NA	213 (8.1)
Deaths due to AE by SOC and PT^c	15 (0.5)	44 (1.6)	11 (0.4)	30 (1.1)
Infections and infestations	3 (0.1)	13 (0.5)	5 (0.2)	5 (0.2)
COVID-19	3 (0.1)	6 (0.2)	1 (<0.1)	2 (0.1)
Second primary neoplasm	0 (0)	13 (0.5)	1 (<0.1)	7 (0.3)
Cardiac disorders	5 (0.2)	6 (0.2)	0 (0)	9 (0.3)

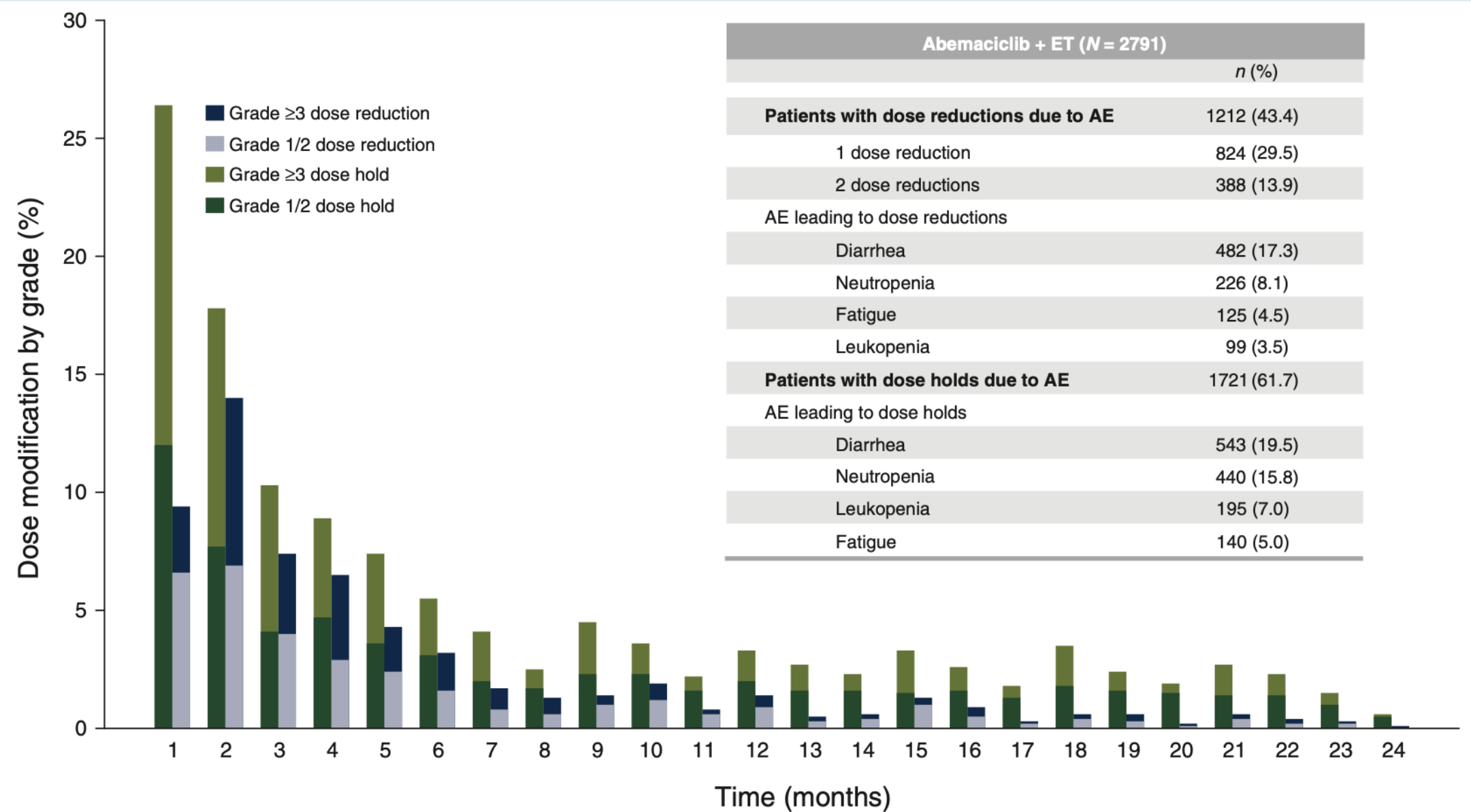
Consistent safety results from prior analyses, as all treated patients completed treatment ≥ 4 years ago
No relevant differences between treatment arms in causes of deaths due to AEs

SAE = serious adverse event; LTFU = long-term follow-up; SOC = standard of care

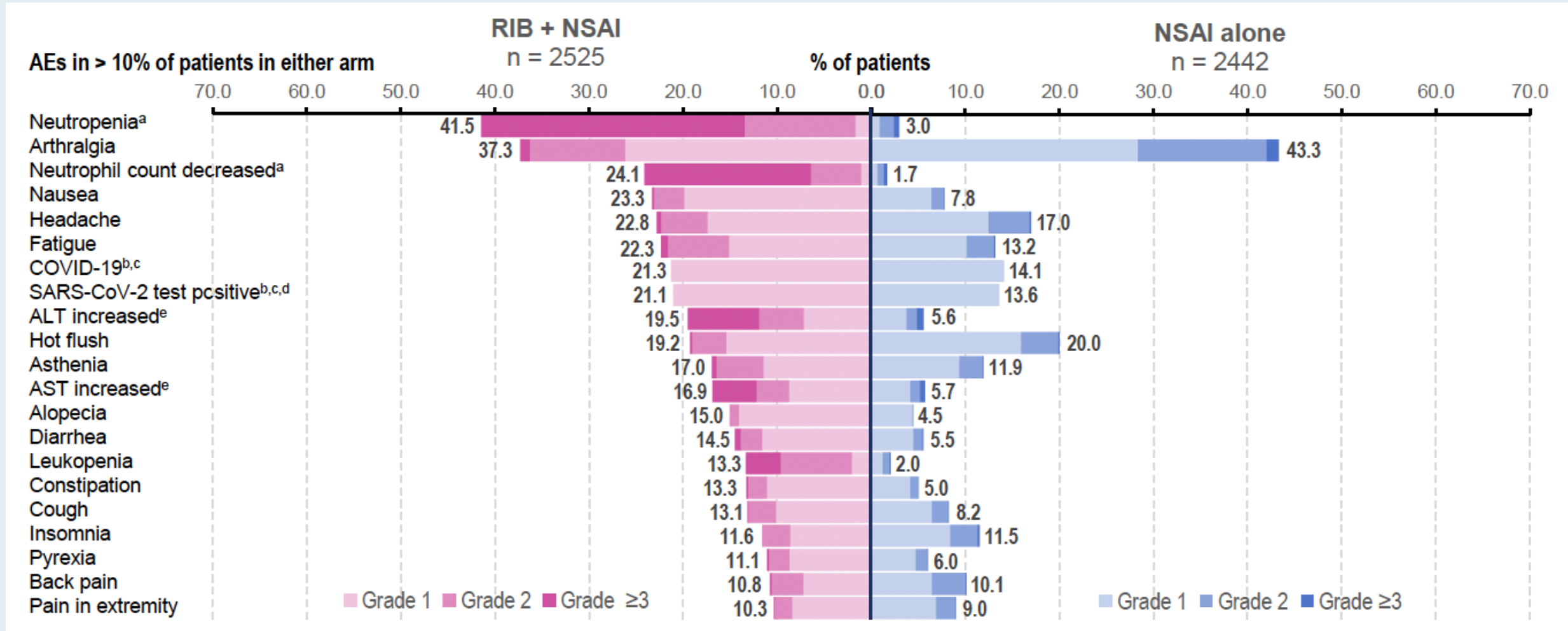
monarchE: AEs Leading to Discontinuation



monarchE: AEs Leading to Dose Modifications



NATALEE: Overall Safety Profile



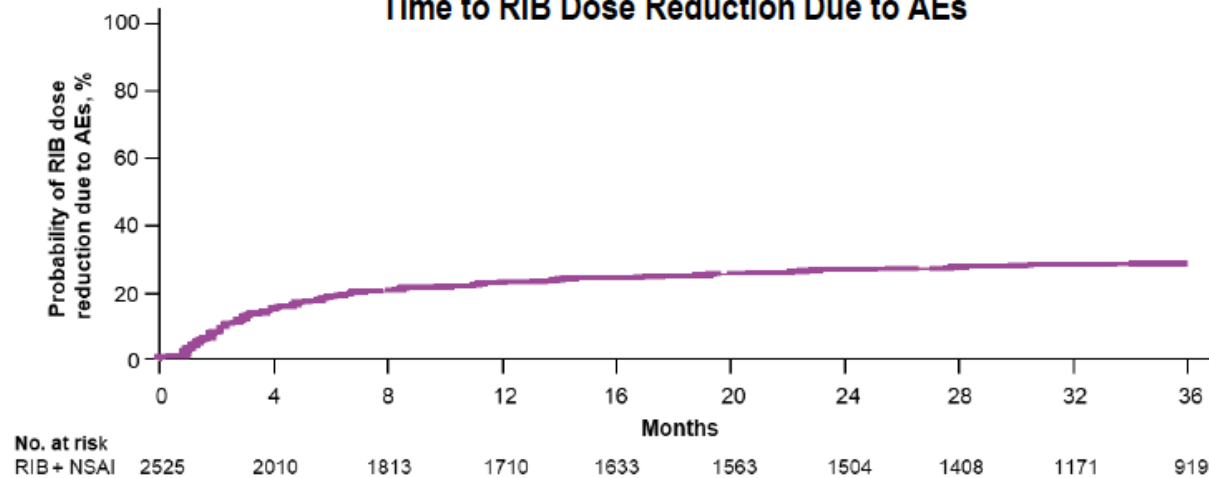
ALT = alanine aminotransferase; AST = aspartate aminotransferase

NATALEE: AEs of Special Interest (AESIs)

AESIs (grouped terms)	Neutropenia ^a		Liver-related AEs ^c		QT interval prolongation ^d	
	RIB + NSAI	NSAI alone	RIB + NSAI	NSAI alone	RIB + NSAI	NSAI alone
All grade	1579 (62.5)	113 (4.6)	667 (26.4)	273 (11.2)	134 (5.3)	34 (1.4)
Grade ≥3	1118 (44.3)	22 (0.9)	217 (8.6)	42 (1.7)	26 (1.0)	15 (0.6)
Time to first grade ≥2 based on laboratory values, median mo. (range)	1.0 (0.9-1.0) ^b	NE	2.8 (0.5-36.7)	9.1 (0.5-33.3)	0.5 (0.5-1.5)	1.4 (0.9-2.8)
Time to resolution of grade ≥2 to ≤1 based on laboratory values, median mo. (95% CI)	1.0 (NE)	1.0 (1.0-1.0)	0.9 (0.7-1.0)	1.4 (1.0-2.5)	0.2 (0.0-0.5)	1.1 (0.5-NE)
Dose reductions, RIB, %	14.2	0	2.6	0	0.1	0
Discontinuations, any component, %	1.1	0	8.9	0.1	0.4	0

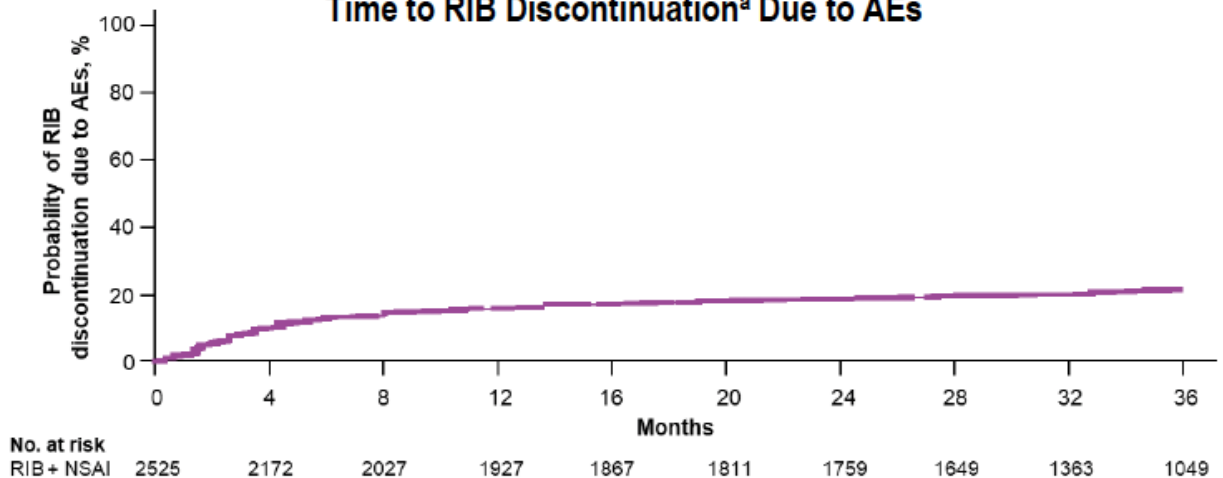
NATALEE: AE-Related Dose Reduction and Discontinuation

Time to RIB Dose Reduction Due to AEs



- AE-related RIB dose reductions occurred in 22.8% of patients
 - Most commonly due to neutropenia (8.5%) and neutrophil count decreased (5.6%)
- Median time to AE-related RIB dose reduction: 3.15 months (range, 0.26-34.17 months)
- Median RDI during RIB treatment: 94%

Time to RIB Discontinuation^a Due to AEs



- Most common AEs leading to discontinuation: ALT increased (7.1%) and AST increased (2.8%)
- Of 19.7% who discontinued due to AEs, 14.0% discontinued without prior dose reduction and 5.7% had their dose reduced before discontinuing
- Median time to AE-related RIB discontinuation: 4.17 months (range, 0.10-35.75 months)

RDI = relative dose intensity

AEs and Dosing Must Be Considered: Distinct AE Profiles and Dosing Schedules of CDK4/6 Inhibitors for Localized Breast Cancer

Abemaciclib

Adverse Events

- Neutropenia (41%-46%)
- Diarrhea (81%-86%)
- Increased ALT (13%-16%)
- Increased AST (12%-15%)
- Thromboembolic events (5%)

Schedule

Continuous daily dosing

Dosing

Starting dose in EBC: 150 mg BID
1st dose reduction: 100 mg BID
2nd dose reduction: 50 mg BID

Ribociclib

Adverse Events

- Neutropenia (69%-78%)
- Diarrhea (29%-35%)
- Increased ALT (15%-46%)
- Increased AST (13%-44%)
- QTc prolongation (6%)

Schedule

3 wk on/1 wk off

Dosing

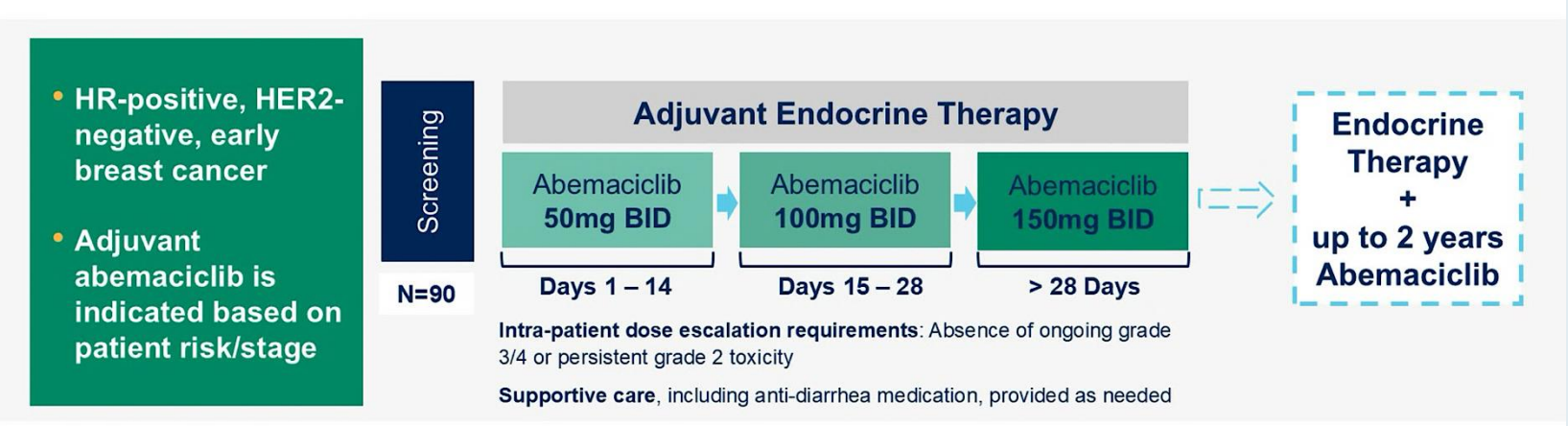
Starting dose in EBC: 400 mg/day
1 (and only) dose reduction option
available in EBC: 200 mg/day

Breast Cancer Status	CDK4/6i	Trial(s)	Discontinuation Rate Due to AE
HR+/HER2– EBC	Abemaciclib	monarchE ^{1,a}	19%
	Ribociclib	NATALEE ^{2,3}	19%

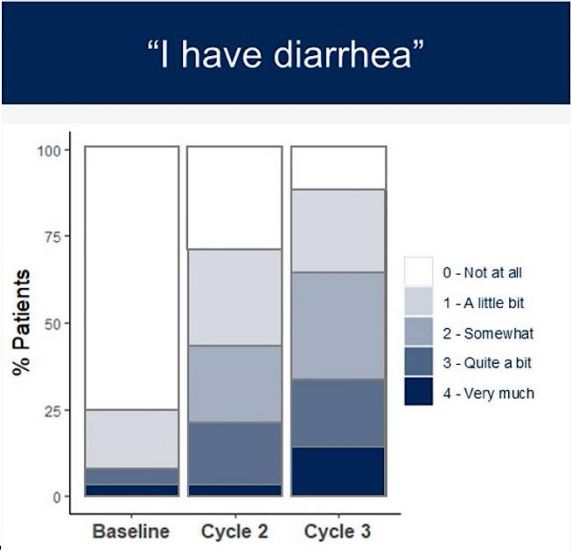
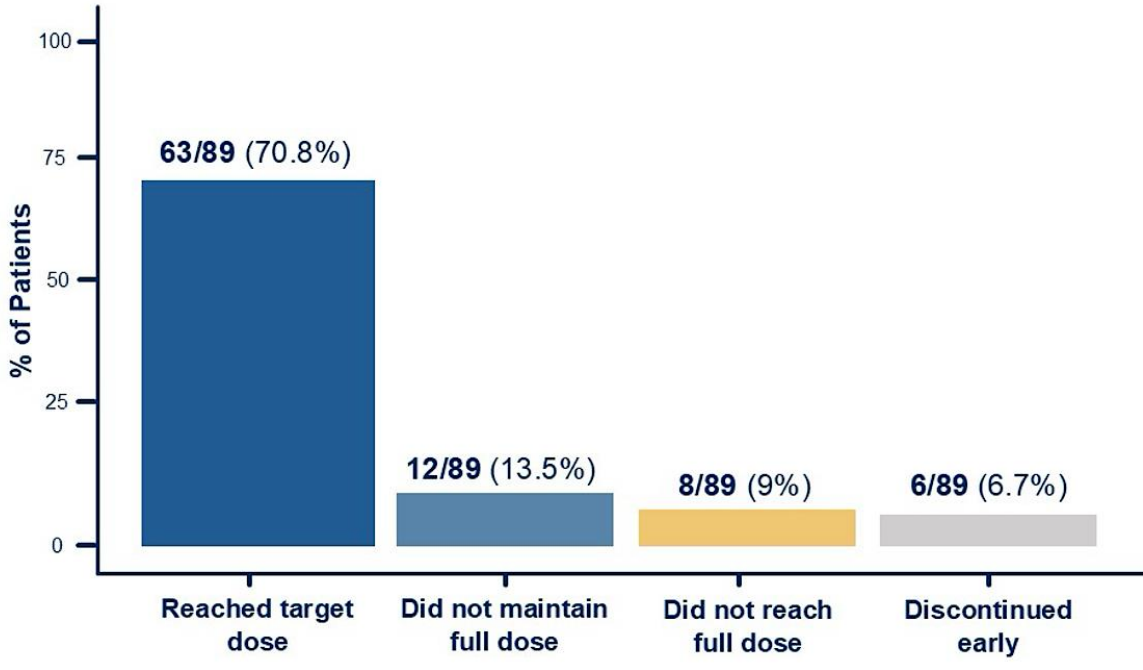
1. Rugo HS, et al. *Ann Oncol.* 2022;33(6):616-627. 2. Slamon D, et al. *N Engl J Med.* 2024 Mar 21;390(12):1080-1091. 3. Hortobagyi GN, et al. SABCS 2023. Abstract GS03-03.

TRADE: Abemaciclib Dose Escalation

Patient disposition in monarchE		
Outcome in monarchE	By 12 weeks	Overall at 2 years
Discontinued abemaciclib for any reason	10%	30.6%
Discontinued for adverse events	7%	18.5%
Required abemaciclib dose reduction	27%	43.4%



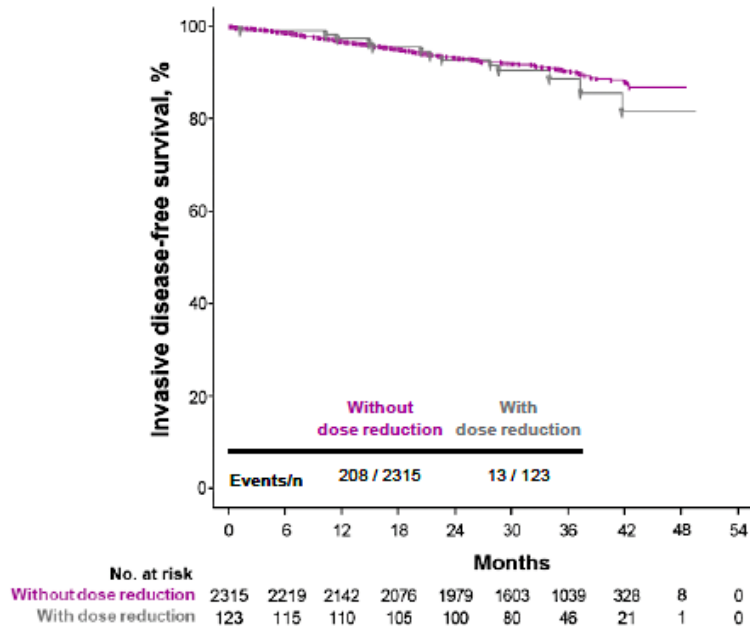
Primary endpoint: composite AE rate (discontinuation of adjuvant abemaciclib for any reason and/or need to dose reduce by 12 weeks of therapy)



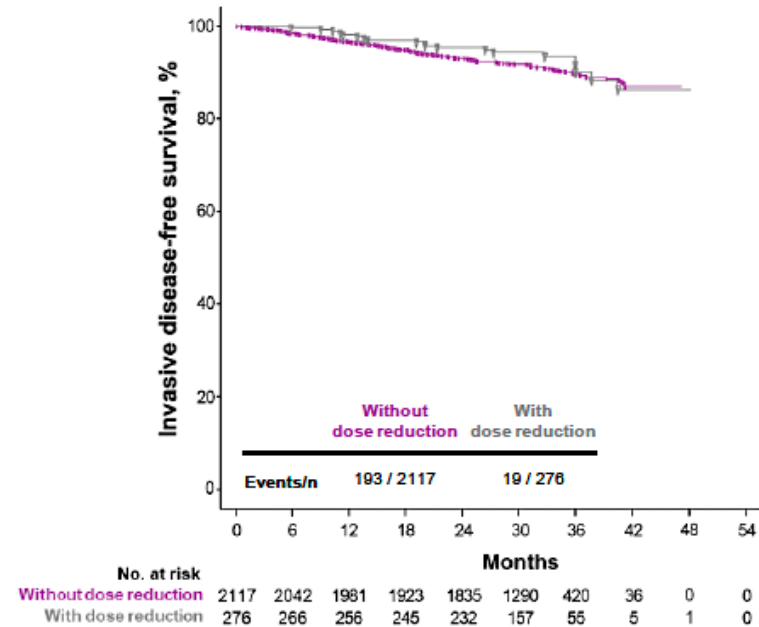
NATALEE: IDFS by Dose Reductions

Landmark analysis revealed that RIB dose reduction due to AEs did not impact efficacy

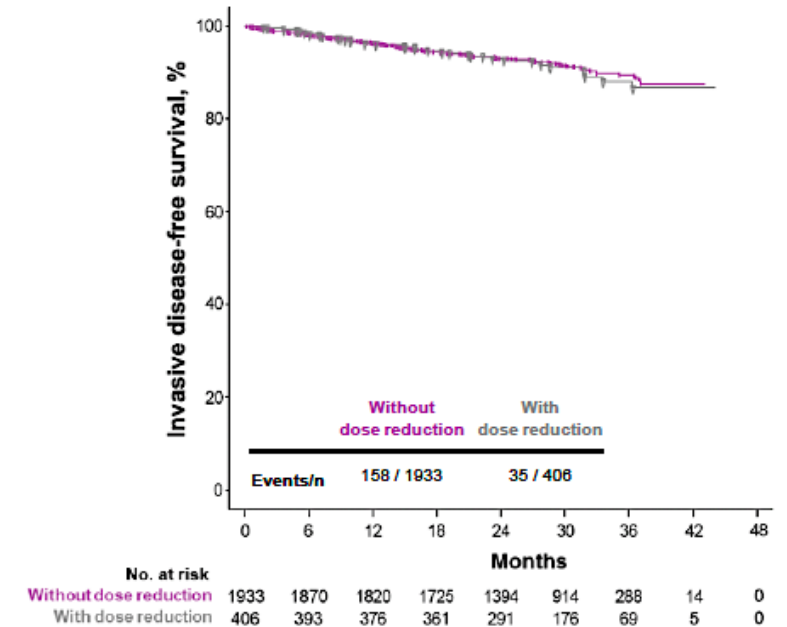
iDFS by Dose Reduction at 25th Percentile^a
(1.87 mo.)



iDFS by Dose Reduction at 50th Percentile^a
(3.17 mo.)



iDFS by Dose Reduction at 75th Percentile^a
(7.28 mo.)



Management of Hormone Receptor (HR)-Positive Localized Breast Cancer

Module 1: Risk Assessment and Genomic Assays for HR-Positive, HER2-Negative Localized Breast Cancer

Module 2: Clinician Survey Results

Module 3: Adjuvant CDK4/6 Inhibitors for High-Risk, HR-Positive, HER2-Negative Localized Breast Cancer

Module 4: Clinician Survey Results

Module 5: Tolerability and Other Practical Considerations with Adjuvant CDK4/6 Inhibitor Therapy

Module 6: Clinician Survey Results

Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

Have you employed or would you employ an initial dose-escalation strategy rather than initiating therapy at the recommended starting dose for any of your patients with HR-positive localized BC receiving an adjuvant CDK4/6 inhibitor?



Dr Brufsky

I have not but would for the right patient



Dr DeMichele

I have



Dr Kalinsky

I have



Dr Mahtani

I have



Dr Mouabbi

I have



Dr Rugo

I have



Dr Sharma

I have



Dr Stringer-Reasor

I have

Assuming eligibility to receive abemaciclib or ribociclib, which CDK4/6 inhibitor would you prefer in the adjuvant setting for a patient with HR-positive localized BC and a history of ...?

		Colitis	Chronic liver disease	Chronic renal disease
	Dr Brufsky	Ribociclib	Abemaciclib	Ribociclib
	Dr DeMichele	Ribociclib	Abemaciclib	No preference
	Dr Kalinsky	Ribociclib	Abemaciclib	No preference
	Dr Mahtani	Ribociclib	Abemaciclib	No preference
	Dr Mouabbi	Ribociclib	Abemaciclib	Ribociclib
	Dr Rugo	Ribociclib	Abemaciclib	No preference
	Dr Sharma	Ribociclib	Abemaciclib	Ribociclib
	Dr Stringer-Reasor	Ribociclib	Abemaciclib	No preference

Assuming eligibility to receive abemaciclib or ribociclib, which CDK4/6 inhibitor would you prefer in the adjuvant setting for a patient with HR-positive localized BC and a history of ...?

		COPD	NYHA Class I congestive heart failure
	Dr Brufsky	No preference	Abemaciclib
	Dr DeMichele	No preference	Abemaciclib
	Dr Kalinsky	No preference	Abemaciclib
	Dr Mahtani	No preference	Abemaciclib
	Dr Mouabbi	Ribociclib	Abemaciclib
	Dr Rugo	No preference	Abemaciclib
	Dr Sharma	No preference	No preference
	Dr Stringer-Reasor	No preference	No preference

COPD = chronic obstructive pulmonary disease

Management of Hormone Receptor (HR)-Positive Localized Breast Cancer

Module 1: Risk Assessment and Genomic Assays for HR-Positive, HER2-Negative Localized Breast Cancer

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Module 4: Clinician Survey Results

Module 5: Tolerability and Other Practical Considerations with Adjuvant CDK4/6 Inhibitor Therapy

Module 6: Clinician Survey Results

Module 7: Adjuvant Oral SERDs for HR-Positive, HER2-Negative Localized Breast Cancer

Key Datasets

- Bardia A et al. **Giredestrant** vs standard-of-care endocrine therapy as **adjuvant treatment** for patients with estrogen receptor-positive, HER2-negative early breast cancer: **Results from the global phase III lidERA Breast Cancer trial**. San Antonio Breast Cancer Symposium 2025;Abstract GS1-10.



DECEMBER 9–12, 2025

HENRY B. GONZALEZ CONVENTION CENTER • SAN ANTONIO, TX

Giredestrant vs standard-of-care endocrine therapy as adjuvant treatment for patients with estrogen receptor-positive, HER2-negative early breast cancer: Results from the global Phase III lidERA Breast Cancer trial

Presenting author: Aditya L. Bardia, MD

University of California, Los Angeles, Los Angeles, CA, USA

Abstract GS1-10

IdERA Breast Cancer Study Design

Key eligibility criteria

- Participants with ER+, HER2-negative early breast cancer
- Stage I–III disease (anatomical)
 - pN0 and pT > 1 cm with Grade 3, or Ki67 ≥ 20%, or high score on genomic assay,* or pT4N0
 - Node-positive
- Pre- or post-menopausal†
- Breast cancer surgery within 12 months
- (Neo)adjuvant chemotherapy if indicated

Stratification factors

- Risk: Medium-‡ vs high-risk§ Stage I–III breast cancer
- Region: USA/Canada/Western Europe vs Asia–Pacific vs RoW
- Previous chemotherapy: No vs yes
- Menopausal status: Pre-menopausal vs post-menopausal

N = 4170

R
1:1

At least 5-year treatment duration

Giredestrant (30 mg PO QD)

SOC ET

Tamoxifen/anastrozole/letrozole/exemestane

5-year follow-up

Long-term
follow-up

Primary endpoint

- IDFS (excluding second primary non-breast cancer)

Key secondary endpoints

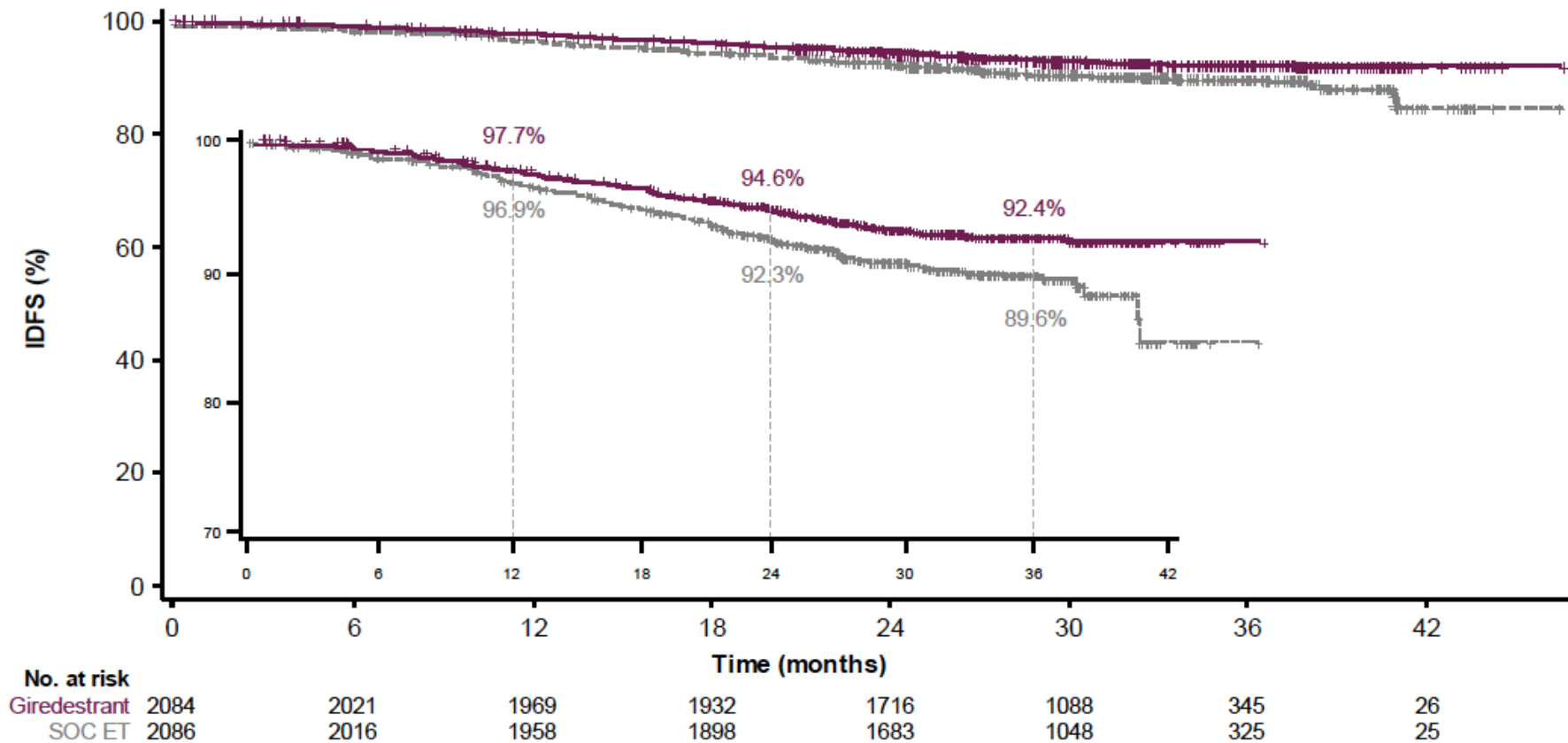
- DFS, DRFI, IDFS (including second primary non-breast invasive cancer with exception of non-melanoma skin cancers and *in situ* carcinomas of any site), LRRFI, OS, safety

DRFI = distant recurrence-free interval; LRRFI = locoregional recurrence-free interval

IdERA Breast Cancer: Patient Demographics

	Giredestrant n = 2084	SOC ET n = 2086		Giredestrant n = 2084	SOC ET n = 2086
Median age, years (range)	54.0 (22–91)	54.0 (25–89)	ER status, n (%)[†]		
Female sex, n (%)	2073 (99.5)	2075 (99.5)	Low-positive (1–10% of cells positive)	45 (2.2)	52 (2.5)
Race, n (%)			Positive (> 10% of cells positive)	2030 (97.8)	2031 (97.5)
American Indian or Alaska Native	77 (3.7)	62 (3.0)	AJCC stage at surgery, n (%)[§]		
Asian	461 (22.1)	467 (22.4)	I	254 (12.3)	283 (13.6)
Black or African American	50 (2.4)	50 (2.4)	II	1013 (49.0)	950 (45.7)
Other*	263 (12.6)	232 (11.1)	III	799 (38.7)	844 (40.6)
White	1233 (59.2)	1275 (61.1)	Nodal status, n (%) on surgical specimen		
Region, n (%)			pN0	449 (21.6)	441 (21.2)
Asia–Pacific	544 (26.1)	544 (26.1)	pN1	968 (46.6)	953 (45.7)
USA/Canada/Western Europe	860 (41.3)	905 (43.4)	pN2–3	662 (31.8)	691 (33.1)
Latin America/Africa/Eastern Europe	680 (32.6)	637 (30.5)	Risk, n (%)		
Menopausal status, n (%)[†]			High	1448 (69.5)	1447 (69.4)
Pre-menopausal	849 (41.0)	838 (40.4)	Medium	636 (30.5)	639 (30.6)
Post-menopausal	1220 (59.0)	1236 (59.6)	Previous chemotherapy, n (%)		
			No	396 (19.0)	450 (21.6)
			Yes	1688 (81.0)	1636 (78.4)

IdERA Breast Cancer: IDFS Outcomes



	Giredestrant n = 2084	SOC ET n = 2086
Events, n (%)	140 (6.7)	196 (9.4)
Stratified HR (95% CI)	0.70 (0.57, 0.87); p = 0.0014*	

Exploratory analysis: IDFS by SOC ET

	Total, n	Stratified HR (95% CI)
AI	1745	0.73 (0.58, 0.92)
Tamoxifen	326	0.53 (0.35, 0.80)

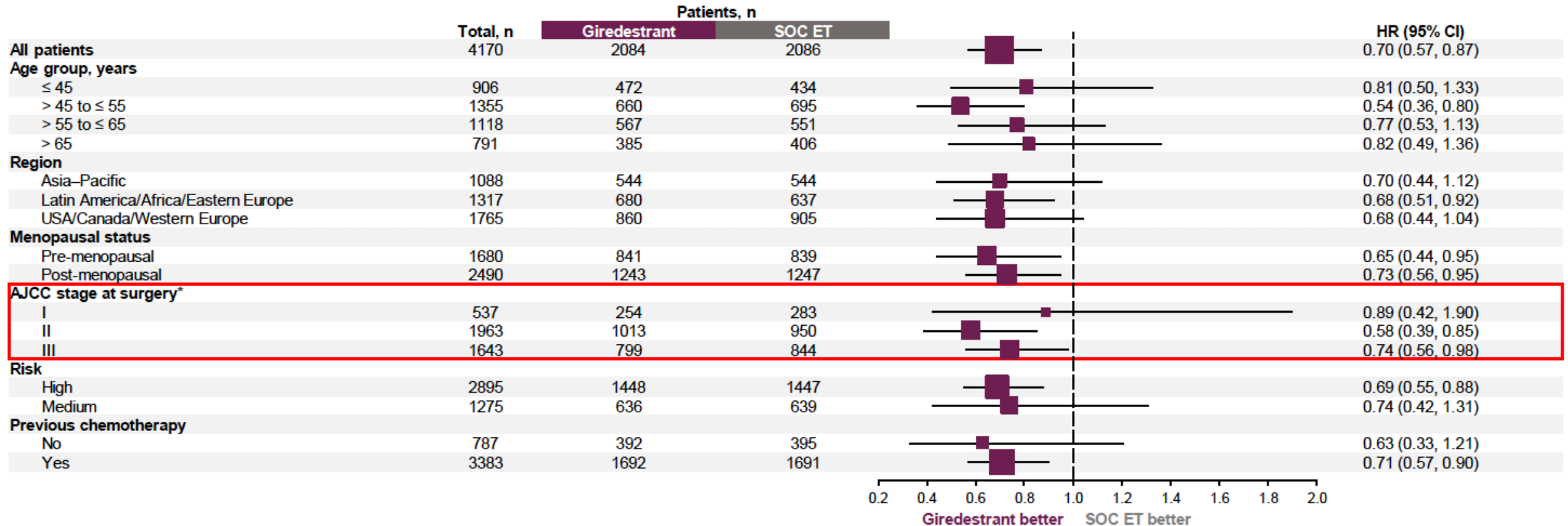
0.3 0.8

Giredestrant better SOC ET better

Median follow-up: 32.3 months

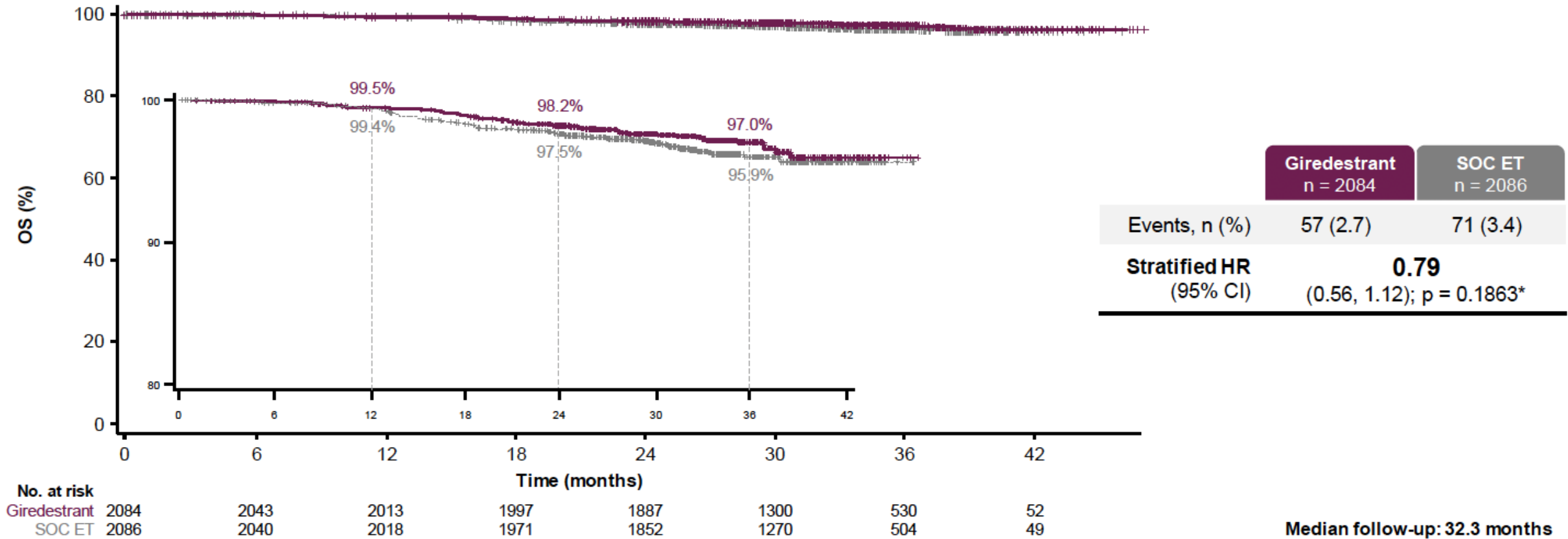
**Statistically significant and clinically meaningful improvement in IDFS:
Giredestrant reduced the risk of invasive disease recurrence or death by 30% compared with SOC ET**

IdERA Breast Cancer: IDFS in Key Subgroups



IDFS benefit was consistent across key prespecified subgroups

lidERA Breast Cancer: OS Outcomes

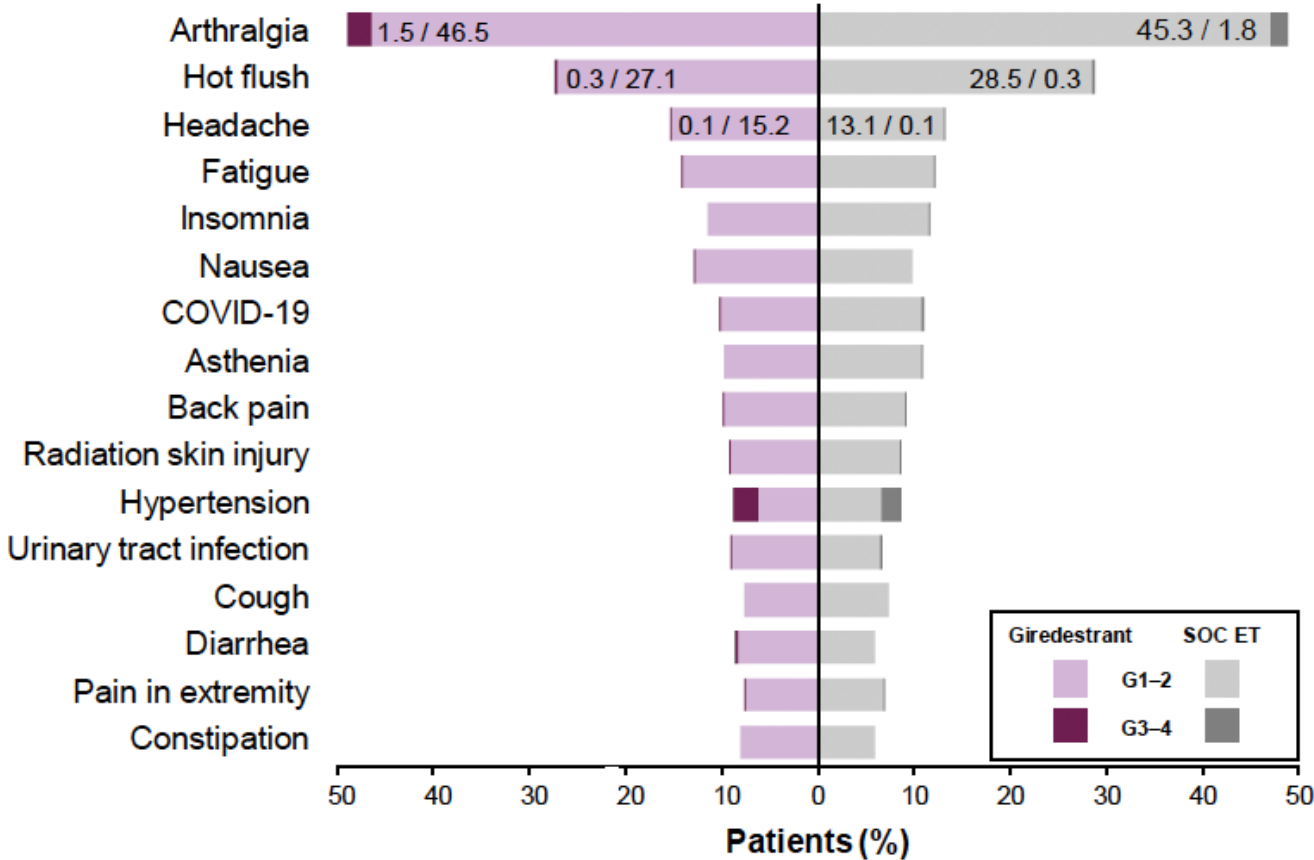


While OS data were immature, a clear positive trend was observed. OS testing will continue at future analyses

lidERA Breast Cancer: Safety Profile

Common TEAEs (≥ 7.5% of patients in either arm at any grade)

Giredestrant n = 2060 SOC ET n = 2074

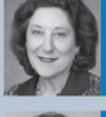


Selected AEs

	Giredestrant n = 2060	SOC ET n = 2074
Patients, n (%) with treatment discontinuations due to AEs		
Musculoskeletal disorders	38 (1.8)	92 (4.4)
• Arthralgias (PT)	32 (1.6)	76 (3.7)
Vasomotor disorders	2 (< 0.1)	18 (0.9)
• Hot flush (PT)	1 (< 0.1)	16 (0.8)

	Giredestrant n = 2060			SOC ET n = 2074		
Patients, n (%) with selected AEs by medical concept*						
	G1	G2	G3–4	G1	G2	G3–4
Bradycardia†	217 (10.5)	15 (0.7)	0	64 (3.1)	2 (< 0.1)	0
Venous thromboembolic events	4 (0.2)	12 (0.6)	2 (< 0.1)‡	3 (0.1)	7 (0.3)	7 (0.3)

Based on recently presented findings from the Phase III lidERA trial, would you like to have access to adjuvant giredestrant today for your patients with HR-positive, HER2-negative localized BC?

	Dr Brufsky	Yes, for patients with higher-risk disease
	Dr DeMichele	Yes, for those who can't tolerate a CDK4/6i or unable to tolerate an AI or in place of tamoxifen for a premenopausal patient with high-risk disease
	Dr Kalinsky	Yes, for patients with higher-risk disease after CDK4/6i or if cannot tolerate standard ET
	Dr Mahtani	Yes, for patients with high-risk disease
	Dr Mouabbi	Yes, for patients who are receiving AI monotherapy
	Dr Rugo	Yes, for high-risk disease as defined in the trial
	Dr Sharma	Yes, for patients that match eligibility of the lidERA trial
	Dr Stringer-Reasor	Yes, for patients with node-negative disease and those with difficulty tolerating AI, after use of CDK 4/6i

ET = endocrine therapy; CDK4/6i = CDK4/6 inhibitor

If giredestrant were available, regulatory and reimbursement issues aside, what would you generally recommend for patients who met the criteria for both an adjuvant CDK4/6 inhibitor and adjuvant giredestrant?



Dr Brufsky

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i



Dr DeMichele

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i



Dr Kalinsky

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i



Dr Mahtani

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i



Dr Mouabbi

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i



Dr Rugo

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i



Dr Sharma

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i



Dr Stringer-Reasor

CDK4/6i with standard adjuvant ET for the initial 2 to 3 years of tx, then switch to giredestrant after discontinuation of the CDK4/6i

ET = endocrine therapy; CDK4/6i = CDK4/6 inhibitor

Questions?