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# Management of the Axilla

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Suzanne Coopey, MD

Breast Surgery Division Chief, AHN

# Disclosures

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- **Nothing to Disclose**

# Axillary Management: Questions to Ponder

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- **When to Consider No Axillary Surgery in Patients with Early-Stage Breast Cancer Undergoing Breast Conservation (INSEMA)?**
- **Who is at Risk for Residual Axillary Nodal Disease after Neoadjuvant Chemotherapy (Alliance 011202)?**
- **When to Dissect and When to Radiate?**

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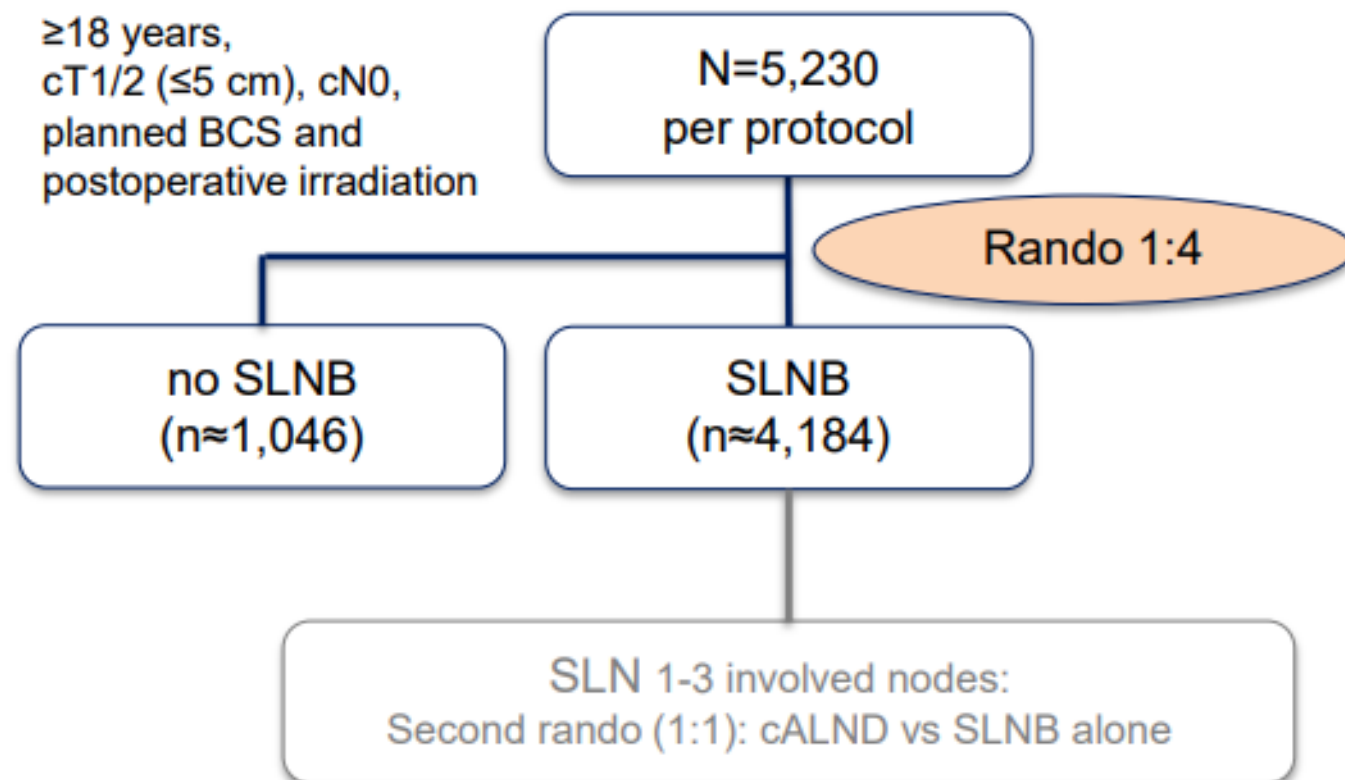
## No axillary surgery versus axillary sentinel lymph node biopsy in patients with early invasive breast cancer and breast-conserving surgery: Final primary results of the Intergroup-Sentinel-Mamma (INSEMA) trial

**Toralf Reimer<sup>1</sup>**, Anarit Stachs<sup>1</sup>, Kristina Veselinovic<sup>2</sup>, Thorsten Kühn<sup>2,3</sup>, Jörg Heil<sup>4,5</sup>, Silke Polata<sup>6</sup>, Frederik Marmé<sup>7</sup>, Thomas Müller<sup>8</sup>, Guido Hildebrandt<sup>9</sup>, David Krug<sup>10</sup>, Beyhan Ataseven<sup>11</sup>, Roland Reitsamer<sup>12</sup>, Andrea Stefek<sup>13</sup>, Carsten Denkert<sup>14</sup>, Inga Bekes<sup>2,15</sup>, Dirk-Michael Zahm<sup>16</sup>, Marc Thill<sup>17</sup>, Michael Golatta<sup>4,5</sup>, Johannes Holtschmidt<sup>18</sup>, Michael Knauer<sup>19,20</sup>, Valentina Nekljudova<sup>18</sup>, Sibylle Loibl<sup>18</sup>, Bernd Gerber<sup>1</sup>

on behalf of the INSEMA investigators

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# Study Design INSEMA Trial



iDFS, invasive disease-free survival; BCS, breast-conserving surgery;  
SLNB, sentinel lymph node biopsy; cALND, completion axillary lymph node dissection

## Primary objective:

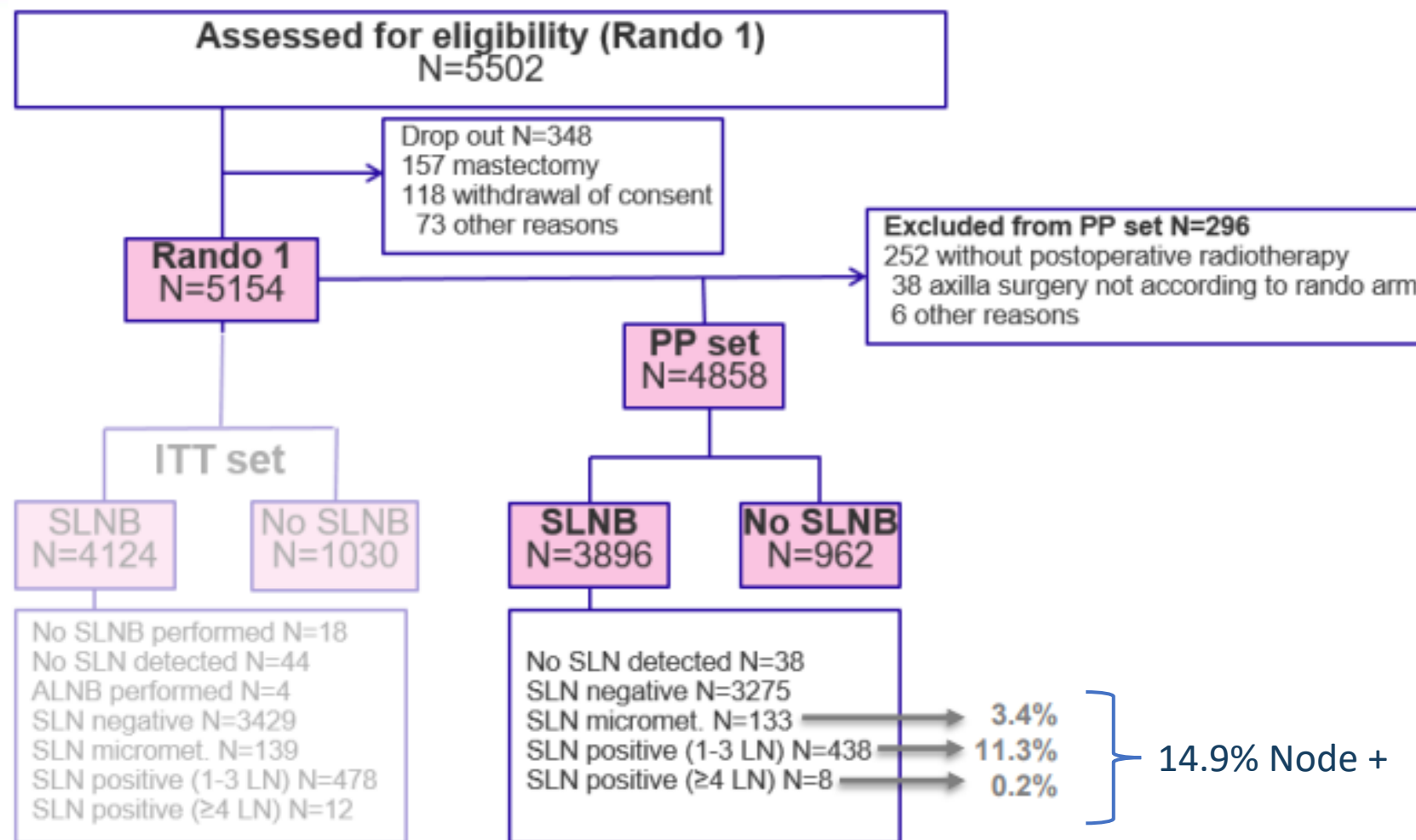
- To compare iDFS after BCS (non-inferiority question) between no axillary surgery and SLNB patients (first randomization)

## Key secondary objective:

- To compare iDFS after BCS between SLNB alone and completion ALND patients (second randomization)
- Recruitment in Germany and Austria (2015-2019)



# Consort Flow Diagram



# Baseline Characteristics: Per-Protocol Set

10.8% were  
aged  
<50 years

95.2% had  
HR+/HER2-  
subtype

Parameter	Category	No SLNB N=962 N (%)	SLNB N=3896 N (%)
Age	median (IQR)	62 (53-68)	62 (53-68)
	<65 years	583 (60.6)	2387 (61.3)
	≥65 years	379 (39.4)	1509 (38.7)
Preop. tumor size	≤2 cm	871 (90.5)	3521 (90.4)
	>2 cm	91 ( 9.5)	375 ( 9.6)
Grading	G1	372 (38.7)	1463 (37.6)
	G2	552 (57.4)	2294 (58.8)
	G3	38 ( 3.9)	139 ( 3.6)
Tumor type	NST (No Special Type=IDC)	726 (75.5)	2828 (72.6)
	Invasive/mixed lobular carcinoma	125 (13.0)	491 (12.6)
	other	111 (11.5)	576 (14.8)
ER/PgR	both negative	15 ( 1.6)	58 ( 1.5)
	ER and/or PgR positive	946 (98.4)	3835 (98.5)
HER2 status	negative	914 (95.4)	3755 (96.7)
	positive	44 ( 4.6)	130 ( 3.3)



# Post-Operative Systemic Therapy

Parameter	Category	No SLNB N (%)	SLNB N (%)	Overall N (%)	Odds Ratio (95% CI)
Chemotherapy	No	856 (89.6)	3355 (87.1)	4211 (87.6)	
	Yes	99 (10.4)	499 (12.9)	598 (12.4)	0.78
	Missing	7	42	49	(0.62-0.98)
Endocrine Therapy	No	40 (4.2)	201 (5.2)	241 (5.0)	
	Yes	916 (95.8)	3648 (94.8)	4564 (95.0)	1.26
	Missing	6	47	53	(0.89-1.78)
Other Adjuvant Therapy	Anti-HER2	19 (2.0)	82 (2.1)	101 (2.1)	0.93 (0.56-1.54)
	Bisphosphonate	92 (9.6)	361 (9.4)	453 (9.4)	1.05 (0.57-1.94)
	Denosumab	13 (1.4)	50 (1.3)	63 (1.3)	1.03 (0.81-1.31)

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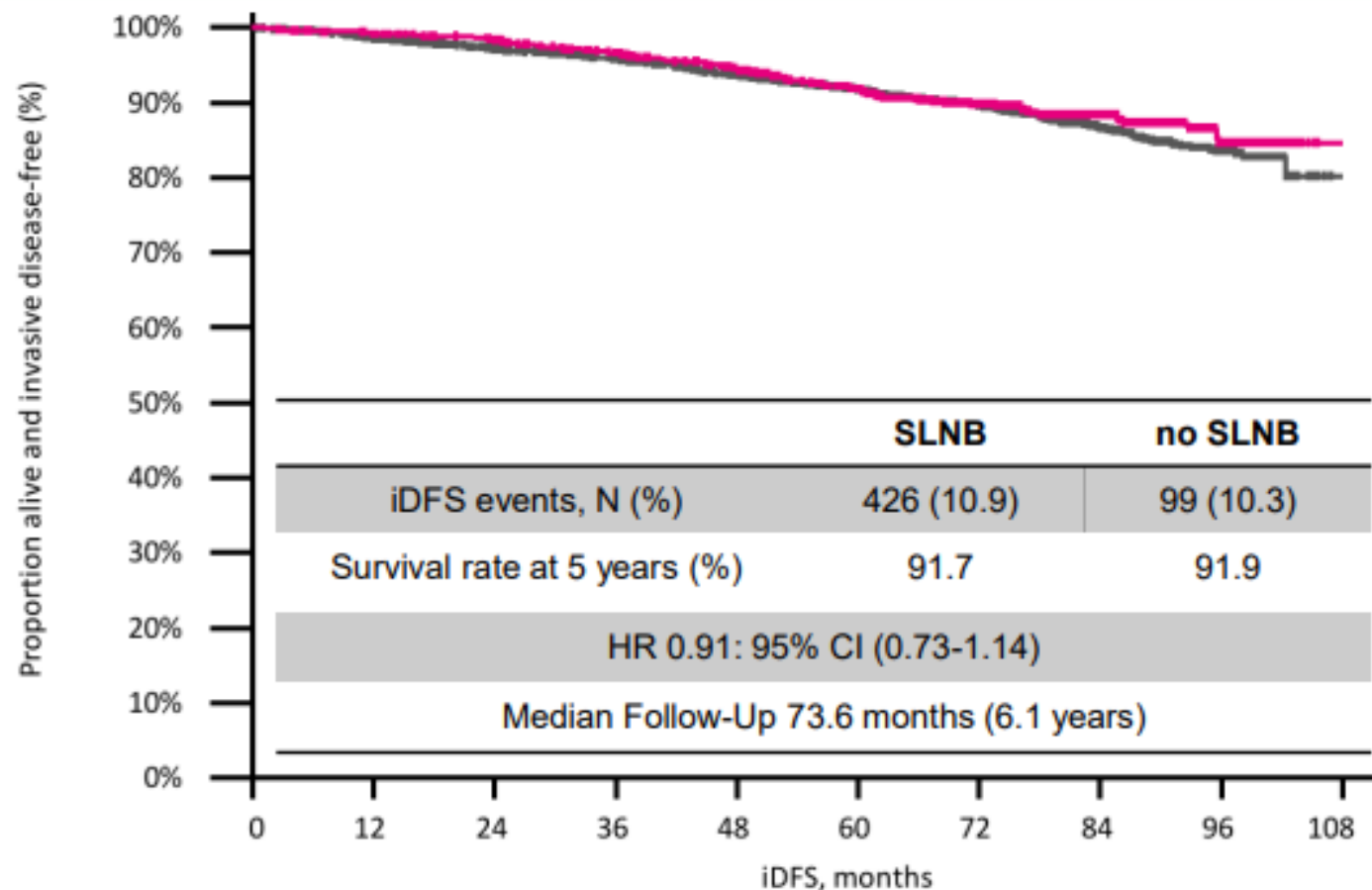
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# Primary Endpoint: Per-Protocol Analysis

Confidence interval for the HR lies entirely below the non-inferiority margin of 1.271

The primary endpoint in ITT set was also met



\*Omission of axillary surgery was NOT inferior to SLNB

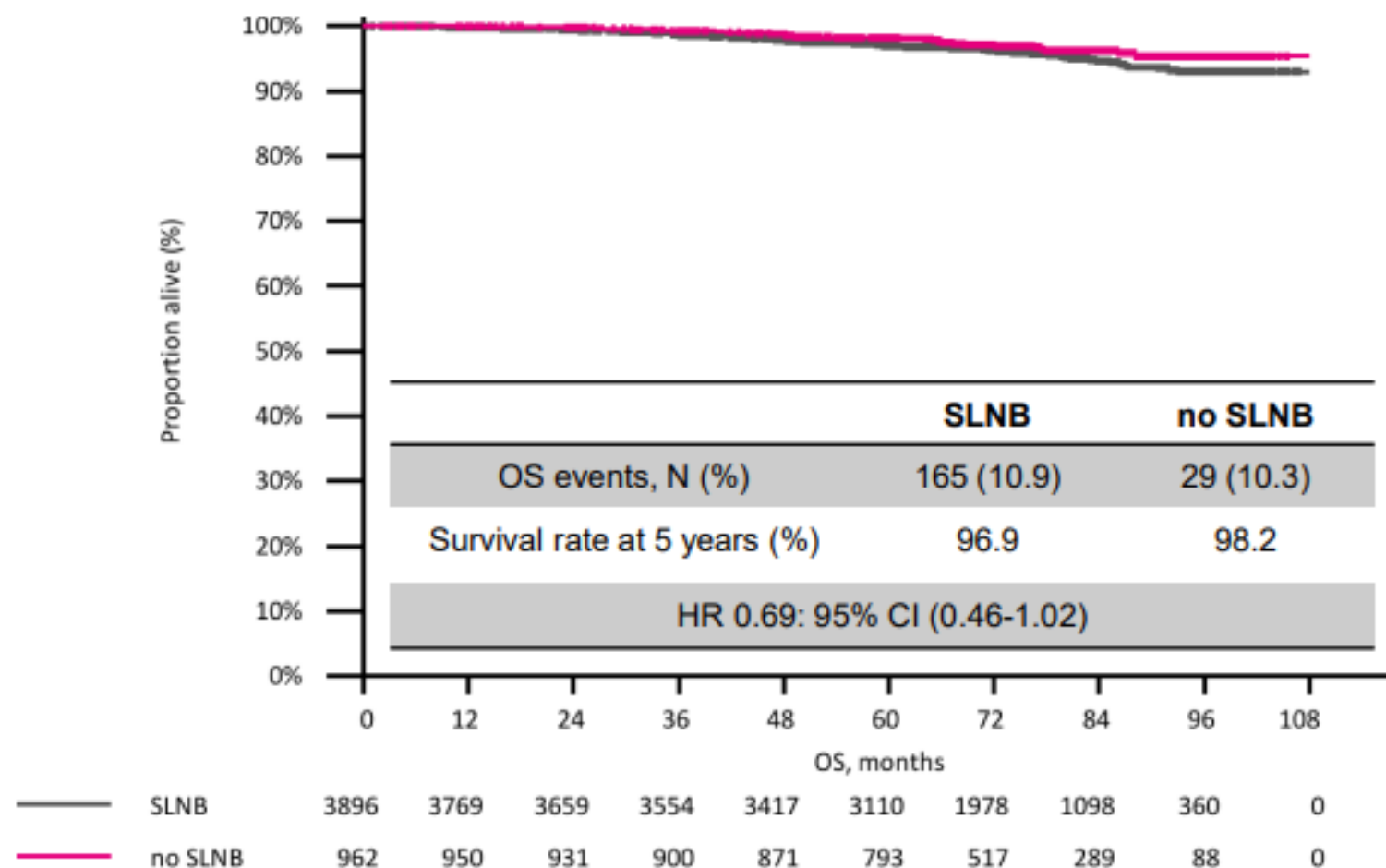
# Primary Endpoint Events (N=525)

Parameter	Category	no SLNB N=962	SLNB N=3896	Overall N=4858
First iDFS event	Invasive locoregional recurrence	18 (1.9)	54 (1.4)	72 (1.5)
	- Axillary recurrence	10 (1.0)	12 (0.3)	22 (0.5)
	- Invasive ipsilateral breast recurrence	8 (0.8)	42 (1.1)	50 (1.0)
	Invasive contralateral BC	10 (1.0)	25 (0.6)	35 (0.7)
	Distant relapse	26 (2.7)	104 (2.7)	130 (2.7)
	Secondary malignancy	32 (3.3)	150 (3.9)	182 (3.7)
	Death	13 (1.4)	93 (2.4)	106 (2.2)

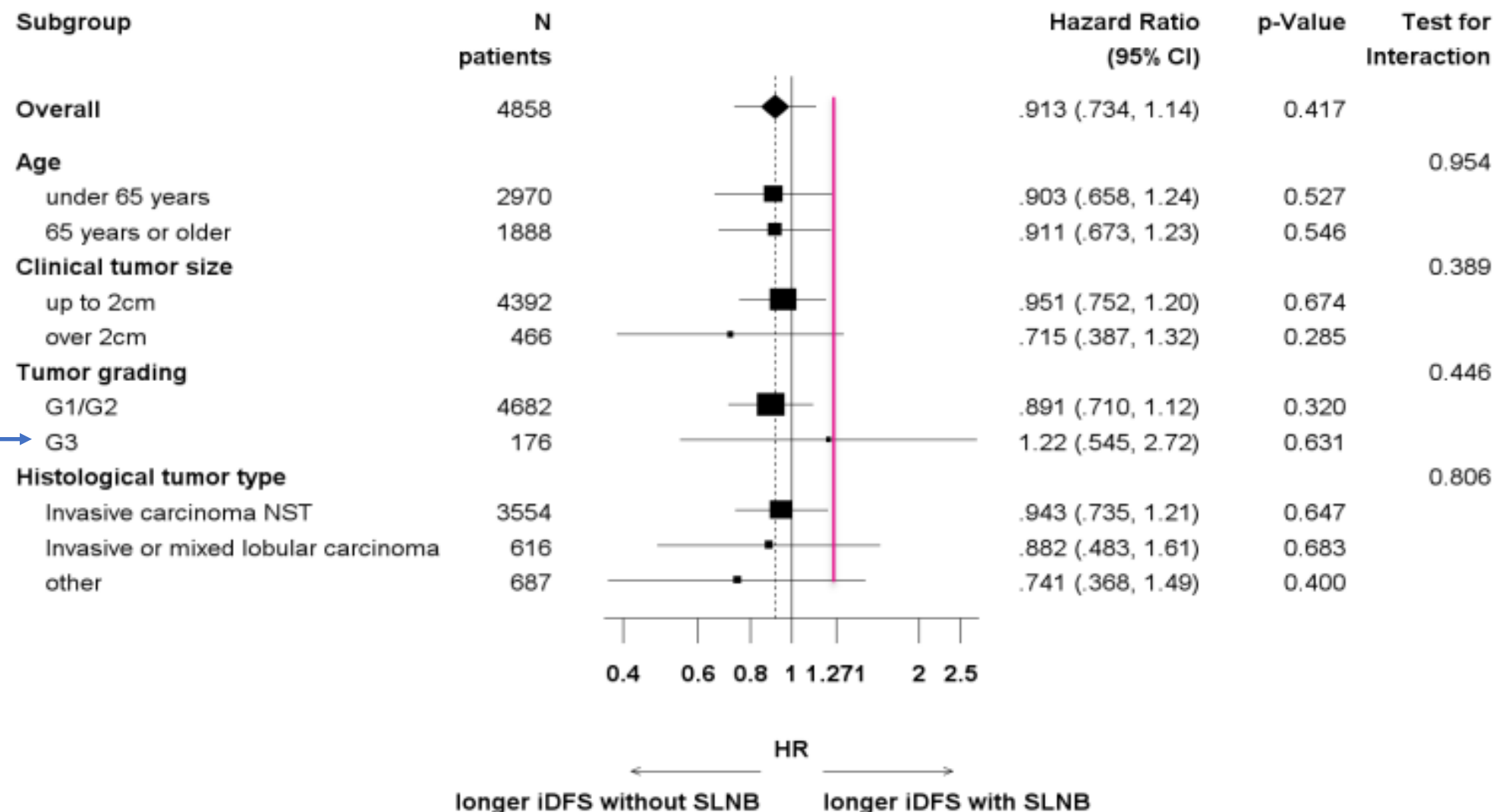
\*Clinical exam every 6 months and annual mammogram and US



# Overall Survival: Per-Protocol Analysis



# Invasive Disease-Free Survival In Subgroups



# Long-Term Safety Analysis

Parameter	No SLNB	SLNB	p-value
Lymphedema	1.8%	5.7%	< 0.001
Restriction of Arm or Shoulder Mobility	2.0%	3.5%	< 0.001
Pain with Arm or Shoulder Movement	2.0%	4.2%	< 0.001

# Conclusion

- The INSEMA trial enrolling 5,500 patients significantly demonstrated that omitting SLNB in cN0 patients with early breast cancer and scheduled for breast-conserving therapy, did not result in inferior outcome (HR 0.91 [95% CI: 0.73-1.14]; non-inferiority margin 1.271).
- Patients had very good overall survival with 96.9% and 98.2% at 5 years with vs without SLNB.
- This de-escalation concept is suitable for patients:
  - aged  $\geq 50$  years with
  - grading G1-G2 and
  - HR+/HER2- subtype and
  - a preoperative tumor size up to 2 cm

# INSEMA Application Considerations

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- **Requires Multidisciplinary Discussion and Individualized Implementation**
- **SLNB Still Has a Role in Guiding Adjuvant Therapy for:**
  - Patients < age 50
  - HER2+ Disease
  - Triple Negative Disease
- **SLNB Has a Role in De-escalating Radiation Therapy**
- **Omission of SLNB May Cause Under-Treatment with CDK 4/6 Inhibitors**



# Axillary Management: Questions to Ponder

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- When to Consider No Axillary Surgery in Patients with Early-Stage Breast Cancer Undergoing Breast Conservation (INSEMA)?
- **Who is at Risk for Residual Axillary Nodal Disease after Neoadjuvant Chemotherapy (Alliance 011202)?**
- When to Dissect and When to Radiate?

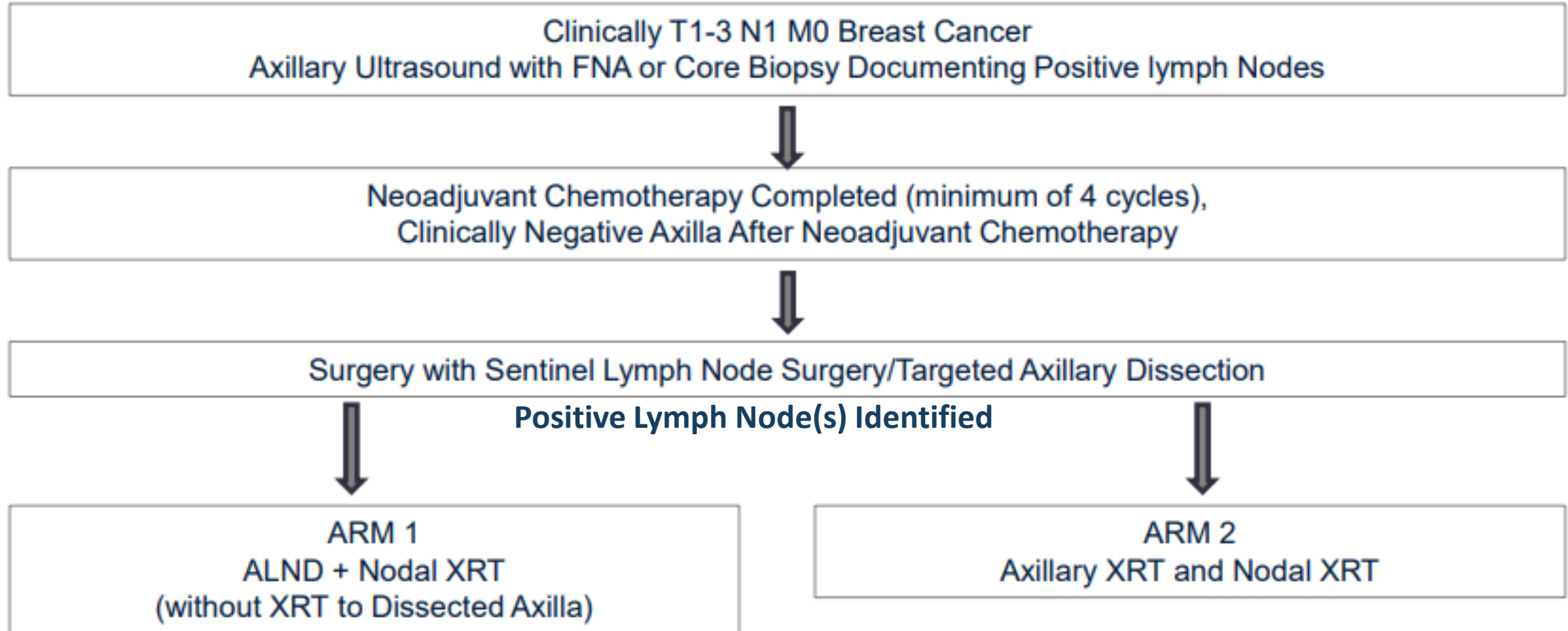
## Factors Influencing Additional Nodal Disease and Pathologic Nodal Upstaging with Axillary Dissection in Patients with Residual Node-Positive Breast Cancer After Neoadjuvant Chemotherapy Enrolled on Alliance A011202 Clinical Trial



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Judy C. Boughey M.D., Vera Suman, Ph.D., Kelly J. Hunt, M.D., Bruce G. Haffty, M.D., M.S.,  
Thomas Buchholz, M.D., W. Fraser Symmans, MBChB., Tracy L. Rieken,  
Travis J. Dockter, Jordan D. Campbell, Anna Weiss, M.D., Julie A. Bradley, M.D., MHCDS,  
Joshua M. V. Mammen, M.D., Ph.D., Ann H. Partridge, M.D., MPH, Lisa A. Carey, M.D.

# A11202 Trial Schema



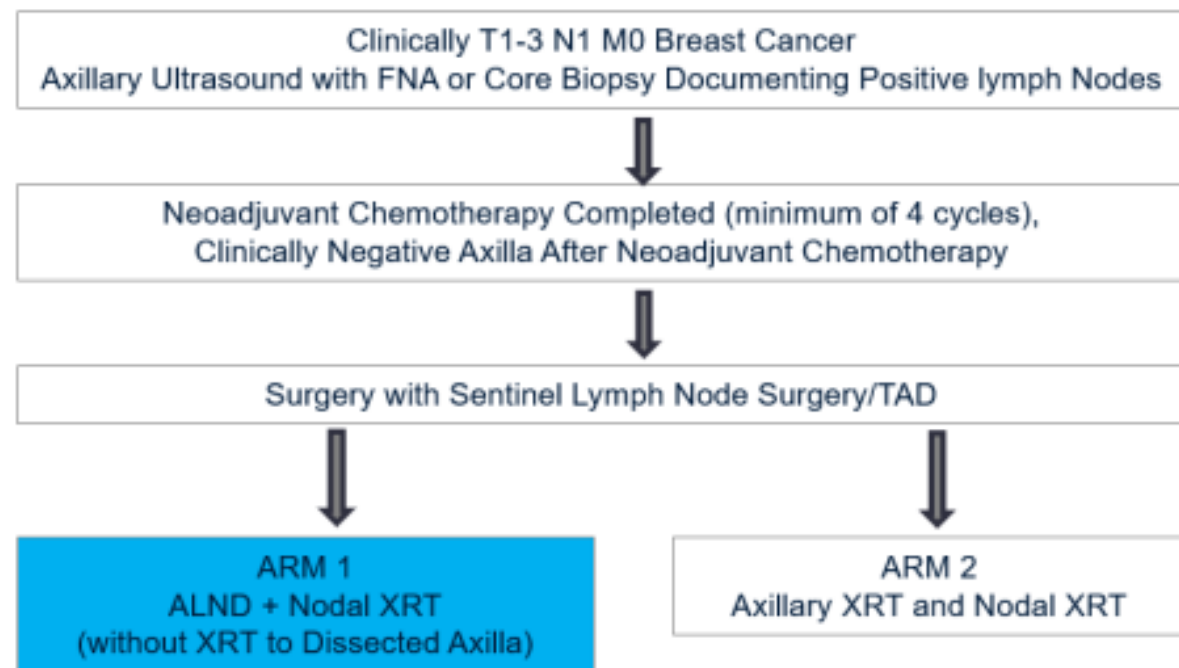
**1<sup>o</sup> endpoint - DRFI**

**Invasive Breast Cancer Recurrence-Free Interval**

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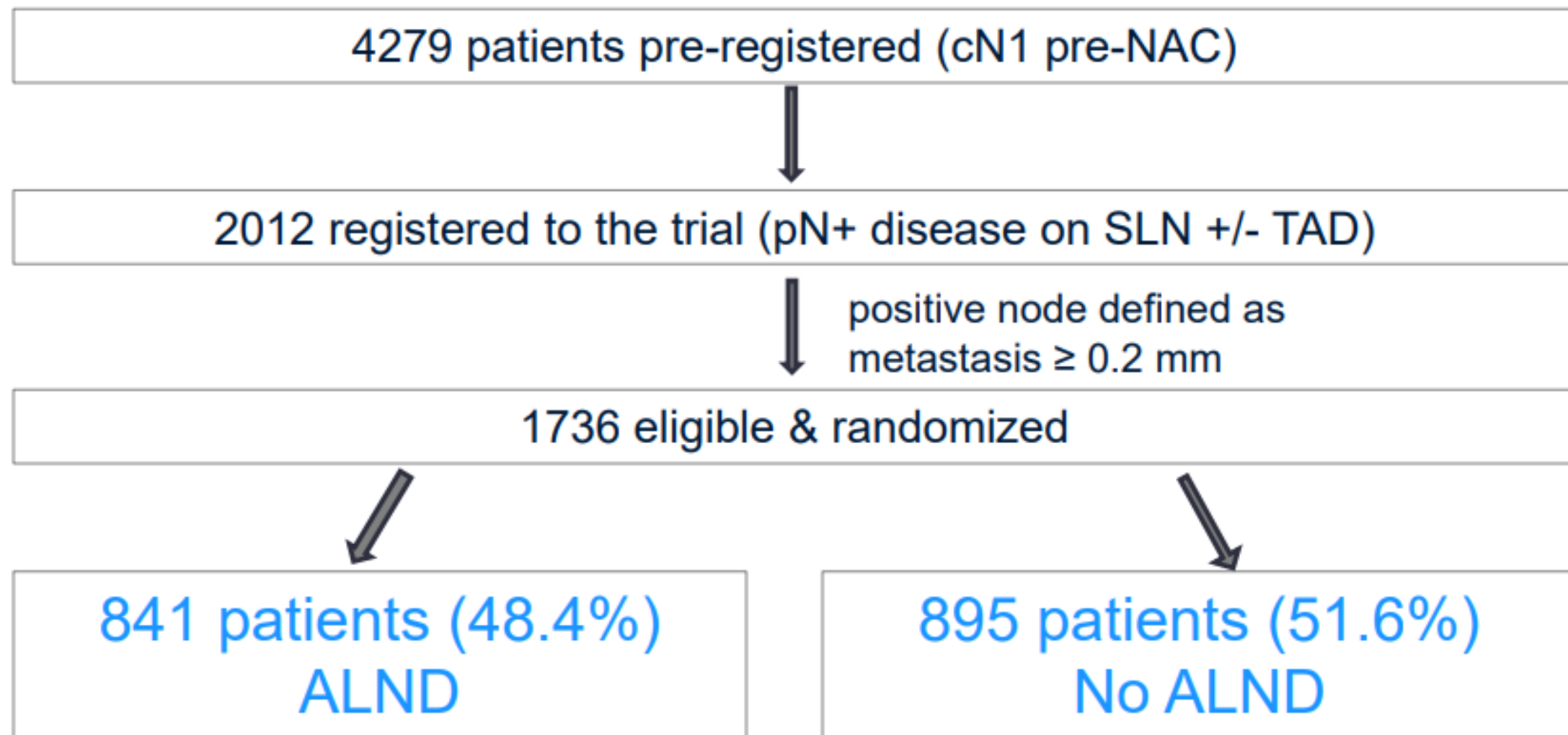
# Aim

- Evaluate the nodal burden at SLN surgery in A11202 patients
- In the ALND group evaluate:
  - Additional positive nodes
  - Factors associated with additional positive nodes
  - Nodal upstaging





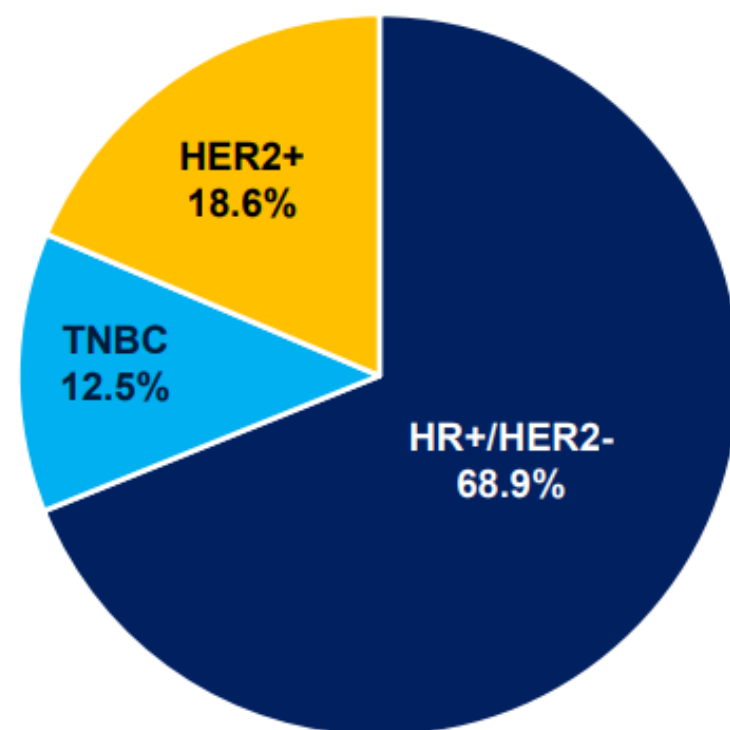
369 sites from 2014-2022



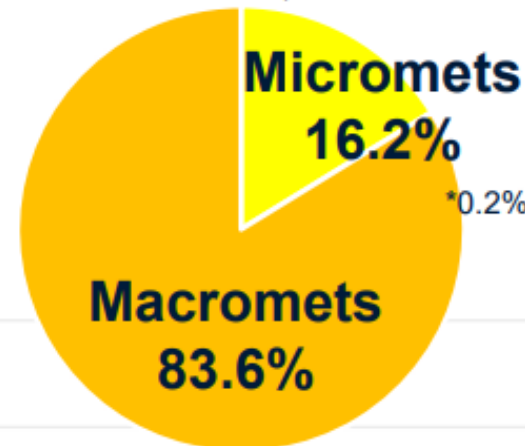
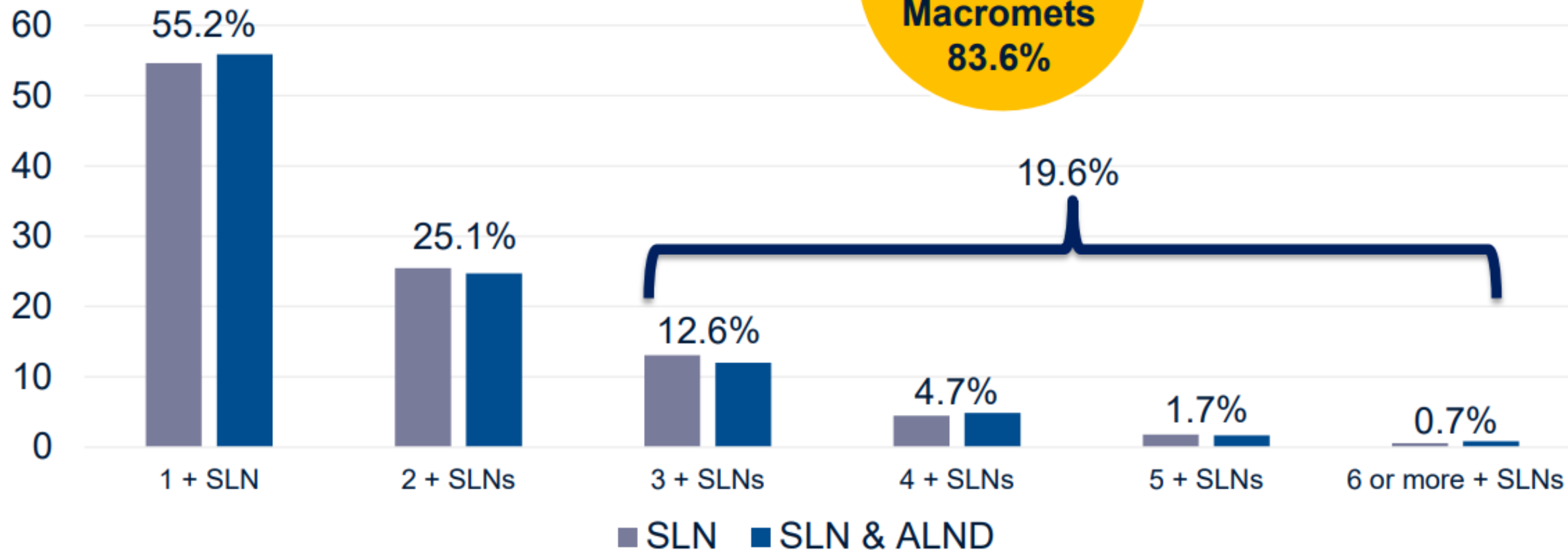


		ALND (n=841)	AxRT (n=895)
Age Group, n (%)	<50	372 (44.2%)	416 (46.5%)
	50-59	251 (29.8%)	267 (29.8%)
	60-69	172 (20.5%)	165 (18.4%)
	70+	46 (5.5%)	47 (5.3%)
Gender, n (%)	Female	837 (99.5%)	893 (99.8%)
	Male	4 (0.5%)	2 (0.2%)
Race, n (%)	Not reported	53 (6.3%)	55 (6.1%)
	American Indian or Alaskan Native	6 (0.7%)	0 (0.0%)
	Asian	36 (4.3%)	40 (4.5%)
	Black or African American	127 (15.1%)	150 (16.8%)
	Native Hawaiian or Pacific Islander	2 (0.2%)	2 (0.2%)
	White	617 (73.4%)	648 (72.4%)
Histologic Type, n (%)	Infiltrating ductal	695 (82.7%)	748 (83.6%)
	Infiltrating lobular	60 (7.1%)	59 (6.6%)
	Mixed ductal/lobular	37 (4.4%)	31 (3.5%)
	Other	48 (5.7%)	57 (6.4%)
	Not provided	1	0
Clinical T Category, n (%)	T1	154 (18.3%)	179 (20.0%)
	T2	501 (59.6%)	512 (57.2%)
	T3	186 (22.1%)	204 (22.8%)
Histologic Grade, n (%)	High	350 (41.6%)	342 (38.3%)
	Intermediate	403 (47.9%)	456 (51.0%)
	Low	73 (8.7%)	77 (8.6%)
	Unknown	15 (1.8%)	20 (2.1%)

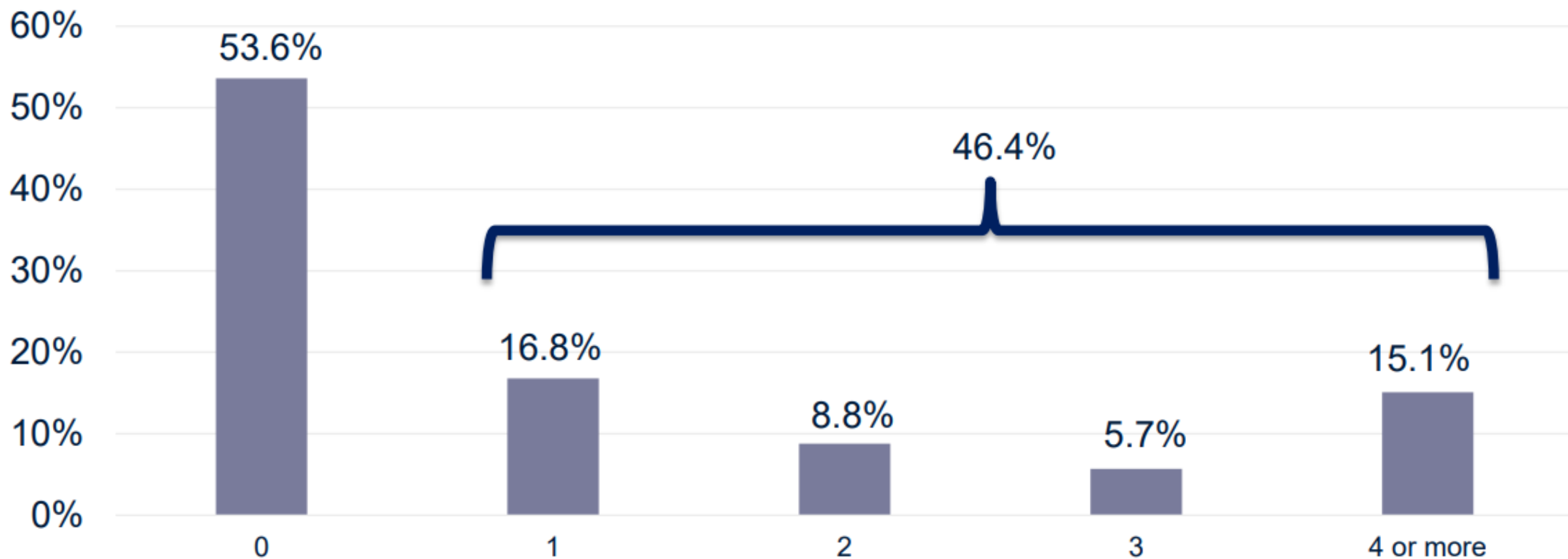
## Tumor Subtype



# SLNs positive (n=1735)



# # of positive nodes on ALND (n=841)



# Factors Impacting Likelihood of Additional Positive Nodes on ALND

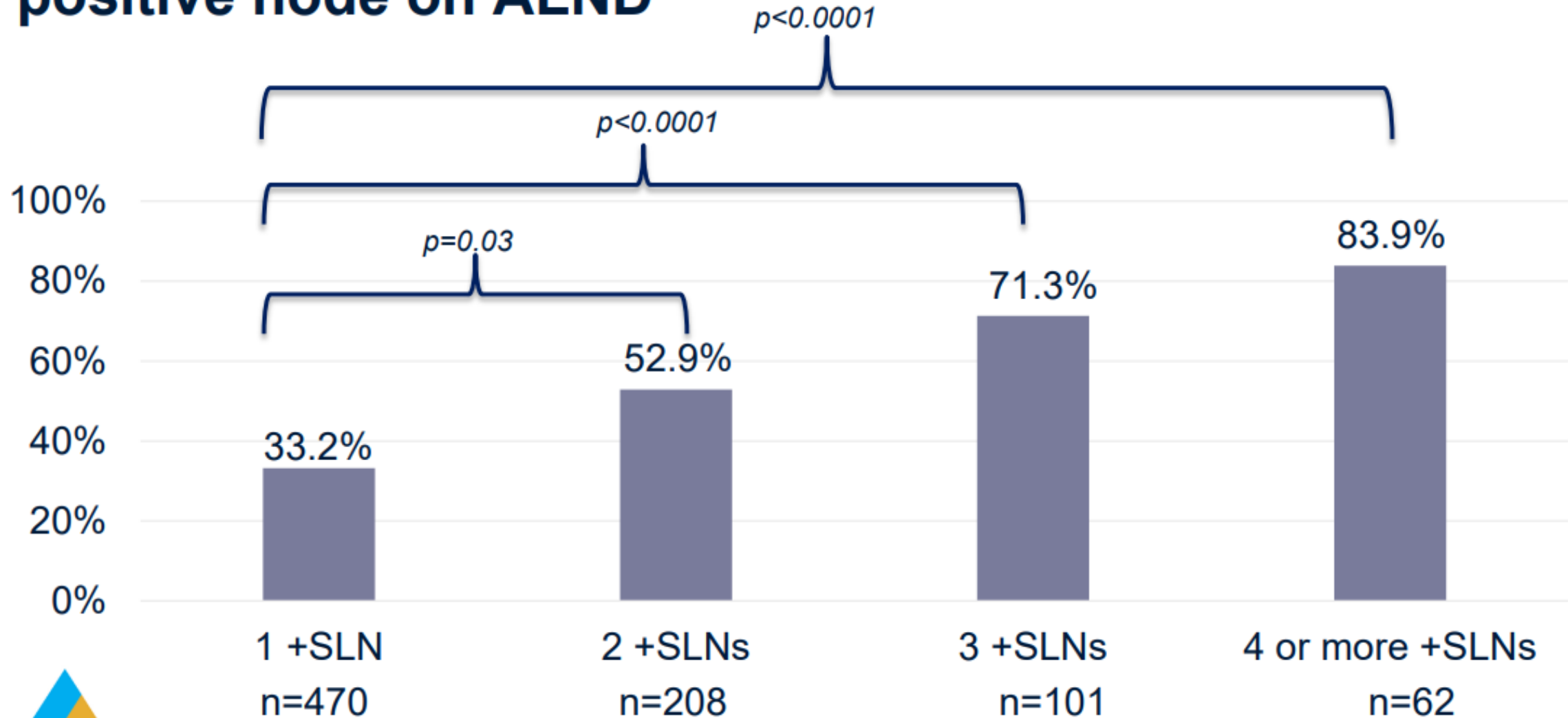
- Impact of SLN met size;

- SLN macromet 47.8% additional + LN(s)
- SLN micromet 38.4% additional + LN(s) p=0.064

- Impact of Tumor Biology;

- TNBC 39.8% additional + LN(s)
- HER2+ 40.3% additional + LN(s) p=0.053
- HR+/HER2- 49.1% additional + LN(s)

# Percentage of patients with at least 1 additional positive node on ALND





# Additional Positive Nodes on ALND

## Factors NOT significantly associated

- Patient Age
- Palpable Nodes at Diagnosis
- Tumor Biologic Subtype
- SLN micro/macrometastasis
- Localized resection of clipped node

## Factors significantly associated

- cT3 at diagnosis
- **Residual breast disease - ypT3**
- Mastectomy
- **↑ # of positive SLNs**
- **↑ # of additional nodes on ALND**

On MVA - **# of positive SLNs, ypT category and number of additional nodes removed on ALND** were associated with additional positive nodes

# Impact of ALND on ypN category

ALND resulted in pathologic nodal upstaging in 25.4% of patients

- Increase from ypN1 to ypN2 19.3% (162 patients)
- Increase from ypN1 to ypN3 3.8% (32 patients)
- Increase from ypN2 to ypN3 2.4% (20 patients)
- No change in stage 74.6%

Did not vary by number of SLNs examined

# Summary

- Patients in A11202 had predominantly HR+/Her2- disease
- Rate of additional positive nodes on ALND was 46%
  - Higher than the 27% in Z11 and 33% in AMAROS
- Likelihood of additional positive nodes on ALND influenced by;
  - # of positive SLNs, ypT3 disease and number of LNs removed at ALND
- ALND led to upstage of nodal stage in 25%
  - All subtypes – greatest in HR+/Her2-

Data from A11202 are awaited regarding oncologic outcomes with omission of ALND

# Axillary Management: Questions to Ponder

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- When to Consider No Axillary Surgery in Patients with Early-Stage Breast Cancer Undergoing Breast Conservation (INSEMA)?
- Who is at Risk for Residual Axillary Nodal Disease after Neoadjuvant Chemotherapy (Alliance 011202)?
- **When to Dissect and When to Radiate?**

OPTIMIZING LOCAL THERAPY

# Axillary Management: When to dissect and when to radiate

**Stephanie M Wong, MD MPH**

Breast Surgical Oncology, Jewish General Hospital

Director, JGH Stroll Cancer Prevention Centre High Risk Breast Clinic

Assistant Professor, McGill University Medical School

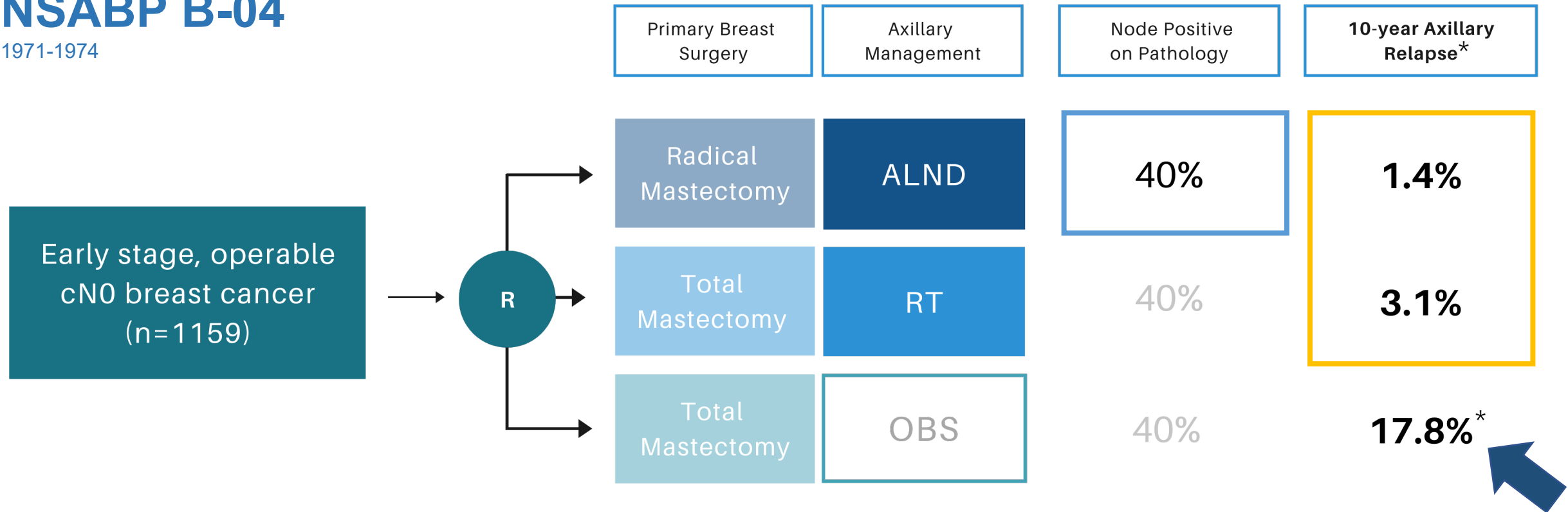


## Key Points:

- No randomized trials have ever shown a disease-free survival or overall survival advantage between ALND vs. AxRT
- Isolated axillary recurrences are a rare event

# NSABP B-04

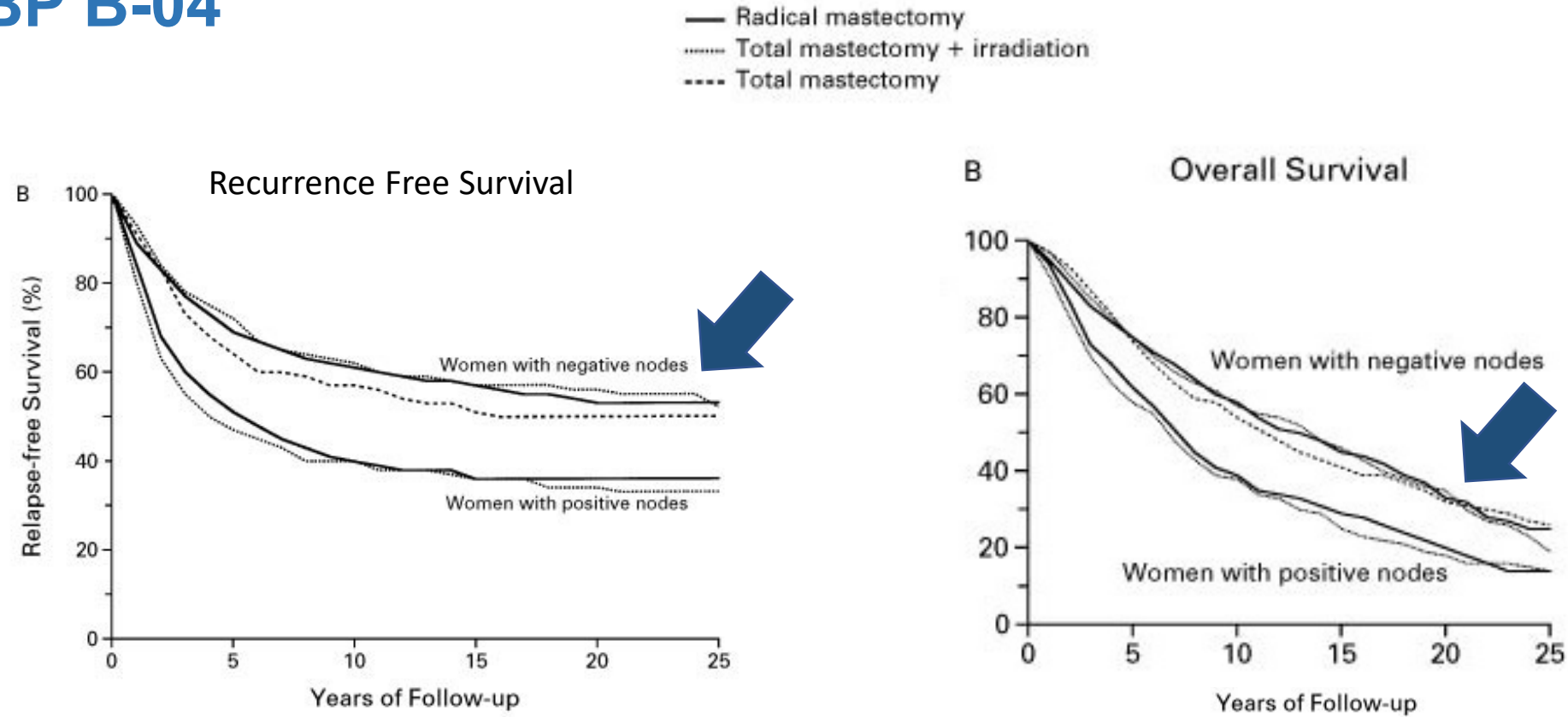
1971-1974



\*development of clinically evident (and pathologically proven) progression of untreated lymph nodes

## NSABP B-04

1971-1974



Axillary management (ALND vs. RT) did not alter survival

## OUTCOMES FROM cN0 SLN+ TRIALS IN UPFRONT SURGERY

	Tumor Size	No. SLN+	BCS (%)	Axillary management	Positive non-SLN on cALND (%)	Axillary recurrences (%)	Median FU (years)
Micrometastatic SLN							
<b>IBCSG 23-01</b> (n=931)	≤5 cm	≤2	91%	ALND v observation	13%	<b>&lt;1.0% v 2.0%</b>	10
<b>AATRM</b> (n=233)	<3.5 cm	≥1	88%	ALND v observation	13%	<b>1.0% v 1.7%</b>	5.1
<b>SENOMIC</b> (n=566)	≤5 cm	≤3	62%	Observation	-	<b>0.9%</b>	3.2
Micro- and Macrometastatic SLN							
<b>Z0011</b> (n=856)	≤5 cm	≤2	100%	ALND v observation	27%	<b>0.5% v 1.5%</b>	10
<b>AMAROS</b> (n=1425)	≤5 cm	≤4 <sup>†</sup>	83%	ALND v AxRT	33%	<b>0.9% v 1.8%</b>	10
<b>OTOASOR</b> (n=474)	≤3 cm	≤2	84%	ALND v AxRT	39%	<b>2.0% v 1.7%</b>	8
Macrometastatic SLN							
<b>SINODAR ONE</b> (n=889)	≤5 cm	≤2	76%	ALND v observation	44%	<b>0.2% v 0.2%</b>	2.8
<b>SENOMAC</b> (n=2540)	≤10 cm	≤2	64%	ALND v AxRT <sup>*</sup>	35%	<b>&lt;0.4% v &lt;0.5%</b>	3.9

## **Evolving data, current controversies...**

- cT3N0 patients & extracapsular extension with 1-2 SLN+
- cN0 mastectomy population with 1-2 SLN+
- Patients with 3 positive SLNs
- ALND to determine eligibility for adjuvant systemic therapies

# Eligibility Criteria SLN+ Trials:

	IBCSG 23-01 (n=931)	AATRM (n=233)	SENOMIC (n=566)	Z0011 (n=856)	AMAROS (n=1425)	OTOASOR (n=474)	SINODAR ONE (n=889)	SENOMAC (n=2540)	POSNOC (n=1900)
cT1 ( $\leq 20$ mm)	○	○	○	○	●	●	○	●	○
cT2 (21 to 50 mm)	○	○	○	○	●	●	○	●	○
cT3 ( $> 50$ mm)								●	
Breast conservation	○	○	○	○	●	●	○	●	○
Mastectomy	○	○	○		●	●	○	●	○
Micrometastases	○	○	○	○	●	●			
Macrometastases				○	●	●	○	●	○
$\leq 2+$ SLN	○	○	○	○	●	●	○	●	○
$\leq 3+$ SLN			○		●				
ECE/ECI								●	○
Male patients								●	

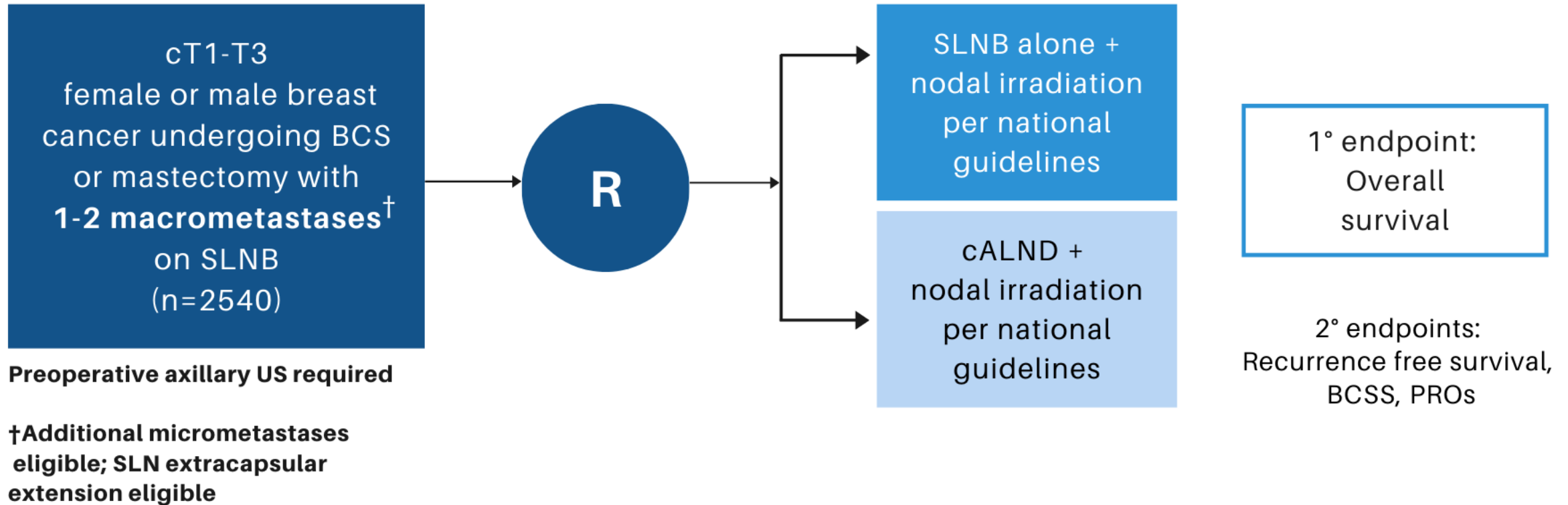
○ Intervention arm: SLNB alone

● Intervention arm: SLNB + AxRT



# SENOMAC

2015-2021



# SENOMAC

2015-2021

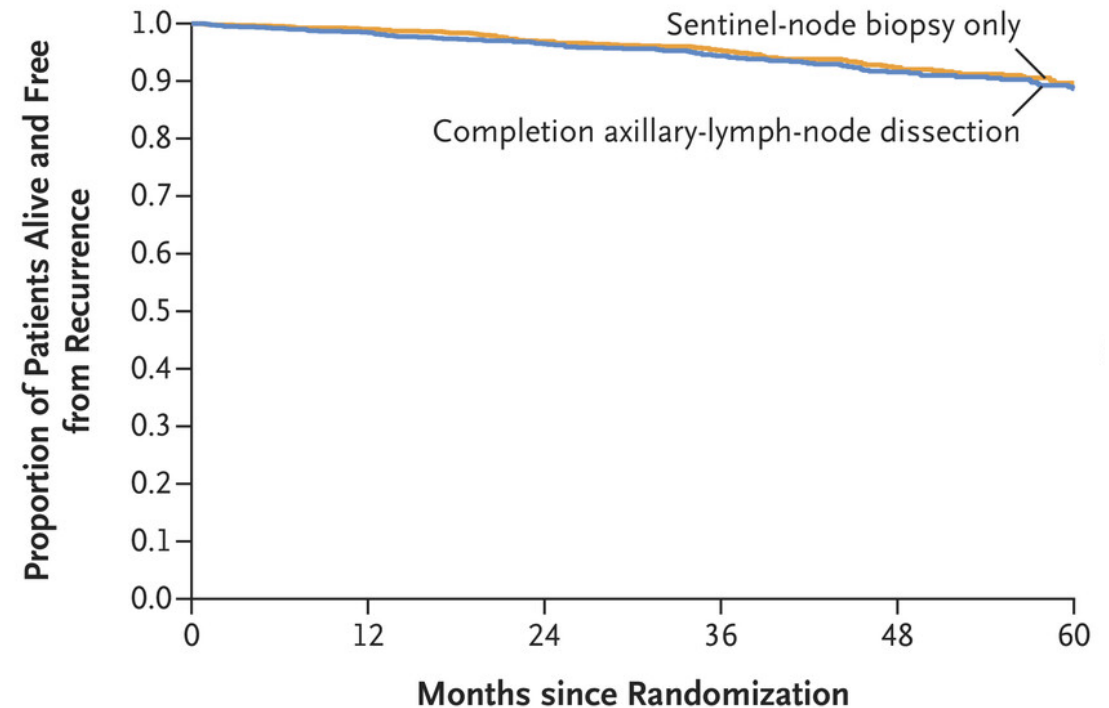
## Cohort characteristics:

Median age: 61 years

94% T1-T2 tumors

87% HR+HER2-

89% received nodal RT



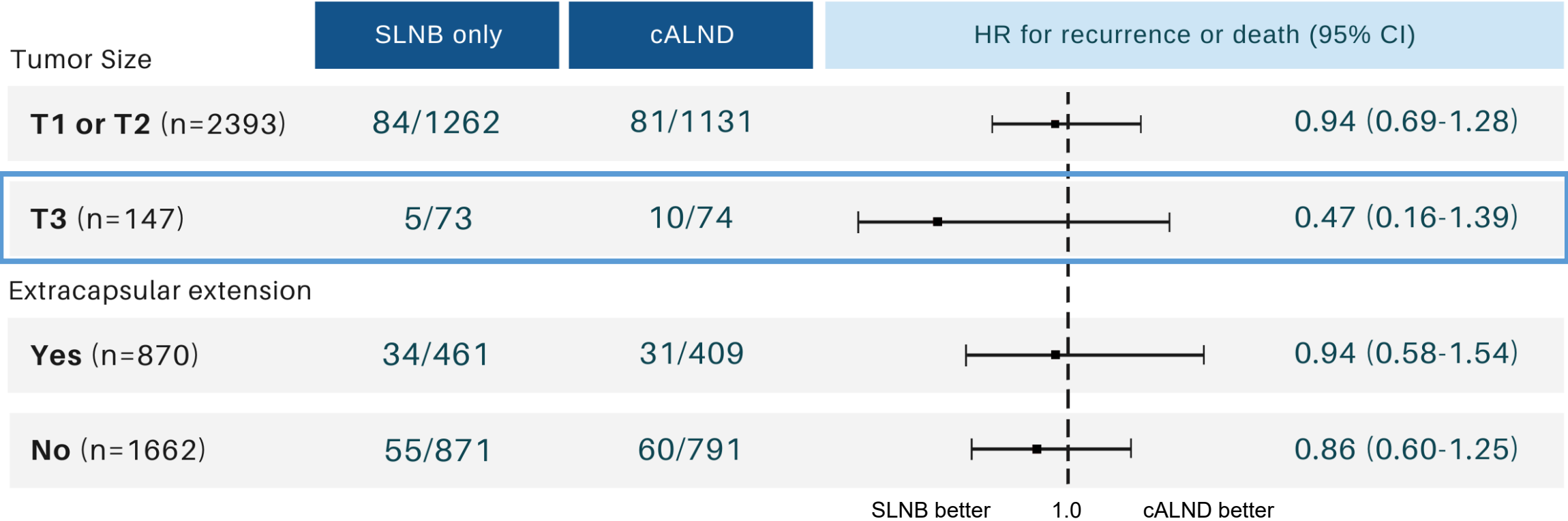
No. at Risk						
Sentinel-node biopsy only	1335	1276	1069	832	577	307
Dissection	1205	1159	1009	772	544	274

**No difference in 5-year RFS: 89.7% SLNB vs. 88.7% cALND**  
**HR 0.89 (95% CI, 0.66-1.19)**

AXILLARY MANAGEMENT IN T3N0 & ECE

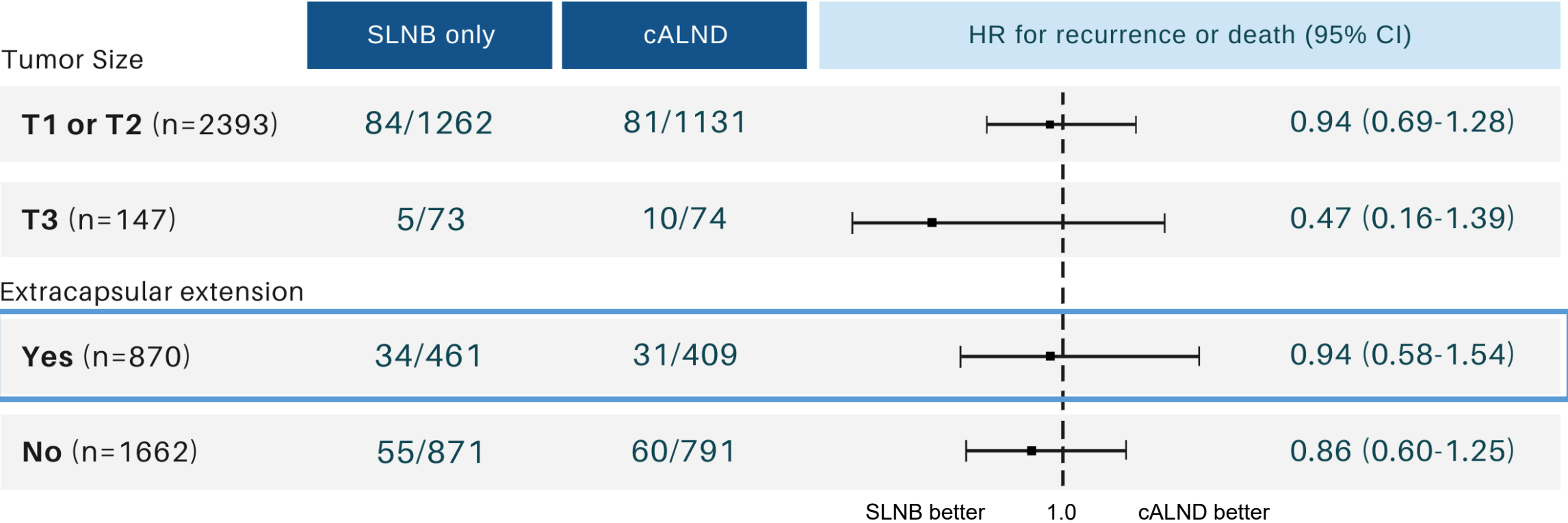
SENOMAC

2015-2021



AXILLARY MANAGEMENT IN T3N0 & ECE

**SENOMAC**  
2015-2021



## **Evolving data, current controversies...**

- cT3N0 patients & extracapsular extension with 1-2 SLN+
- **cN0 mastectomy population with 1-2 SLN+**
- Patients with 3 positive SLNs
- ALND to determine eligibility for adjuvant systemic therapies

## Controversy with mastectomy patients:

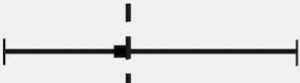

- Worse tumor characteristics: more extensive, multicentric disease
- Do not receive incidental radiation to the level I axilla that occurs in >70% of BCS patients undergoing WBRT
- Until recently, less well represented in clinical trials...



MASTECTOMY PATIENTS + SLN MACROMETS (N1)

SENOMAC

2015-2021

Breast Surgery	SLNB only	cALND	HR for recurrence or death (95% CI)	
BCS (n=1620)	48/845	46/775		0.98 (0.65-1.47)
Mastectomy (n=920)	41/490	45/430		0.79 (0.52-1.21)

Mastectomy patients with 1-2 SLN+ (macrometastases)  
Axillary RT recommended to provide effective local control\*

(\*ALND can be reserved for patients for whom PMRT is contraindicated or not required)

## **Evolving data, current controversies...**

- cT3N0 patients & extracapsular extension
- cN0 mastectomy population
- **cN0 patients with three positive SLNs**
- ALND to determine eligibility for adjuvant systemic therapies

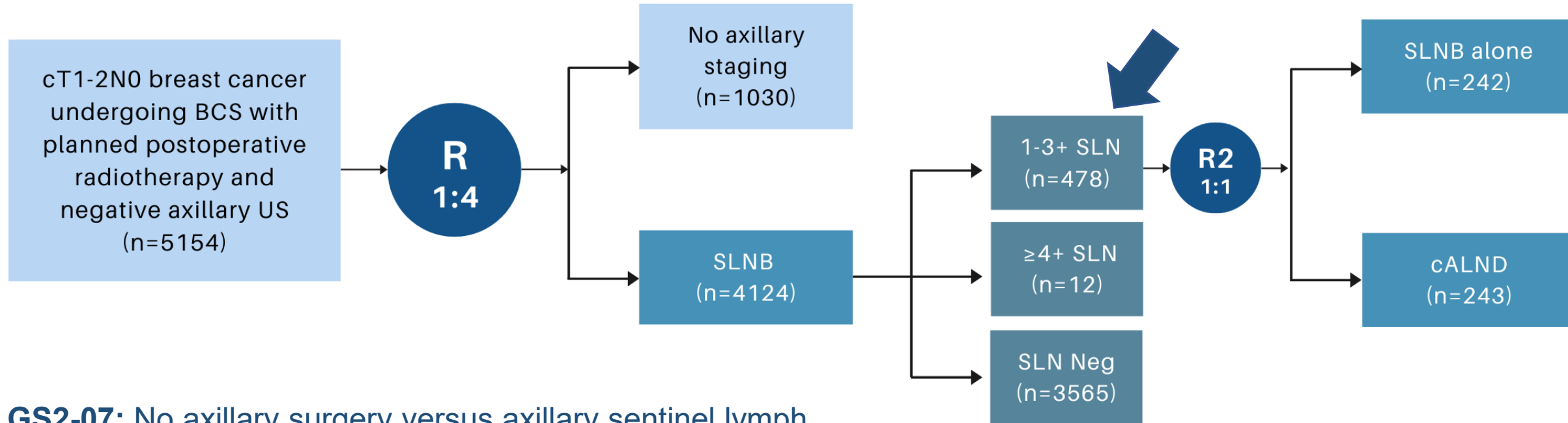
AXILLARY MANAGEMENT IN cN0 PATIENTS WITH 3 SLN+

cN0 with 3-4 SLN+	% AxUS	% ≥3 SLN+	No. pts	Axillary management
<b>AMAROS</b> (n=1425)	<b>60%</b>	<b>4.9%</b>	71	ALND v AxRT
<b>SENOMAC</b> (n=2540)	<b>100%</b>	<b>2%<sup>†</sup></b>	52	ALND v AxRT
<b>INSEMA R2</b> (n=485)	<b>100%</b>	-		ALND v observation

<sup>†</sup>Up to 2 macrometastatic SLN with additional micrometastases in 1 or more SLN

# INSEMA Trial (GBG-75 / ABCSG-43)

2012-2021

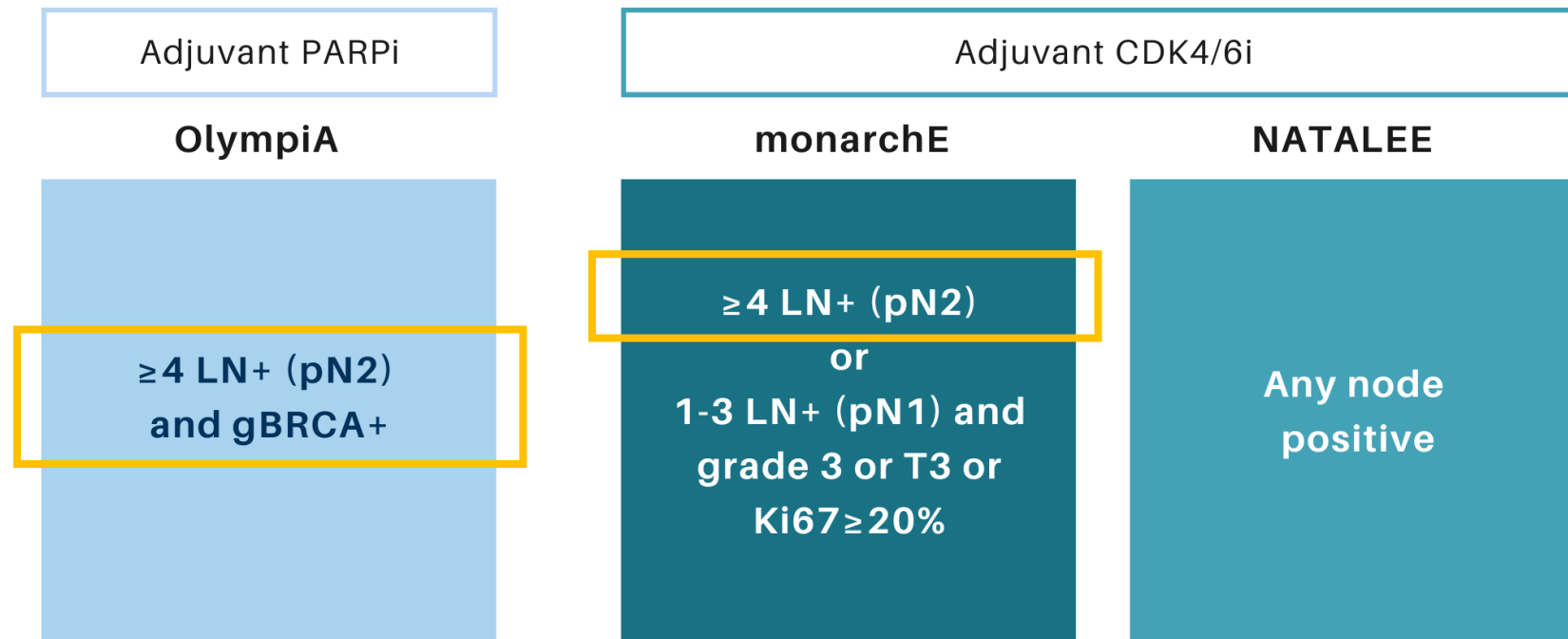


**GS2-07:** No axillary surgery versus axillary sentinel lymph node biopsy in patients with early invasive breast cancer and breast-conserving surgery: Final primary results of the Intergroup-Sentinel-Mamma (INSEMA) trial.

## **Evolving data, current controversies...**

- cT3N0 patients & extracapsular extension with 1-2 SLN+
- cN0 mastectomy population with 1-2 SLN+
- Patients with 3 positive SLNs
- **ALND to determine eligibility for adjuvant systemic therapies**

## In ER+HER2- patients who undergo upfront SLNB and have 1-2+ SLN, should we return to OR for cALND?

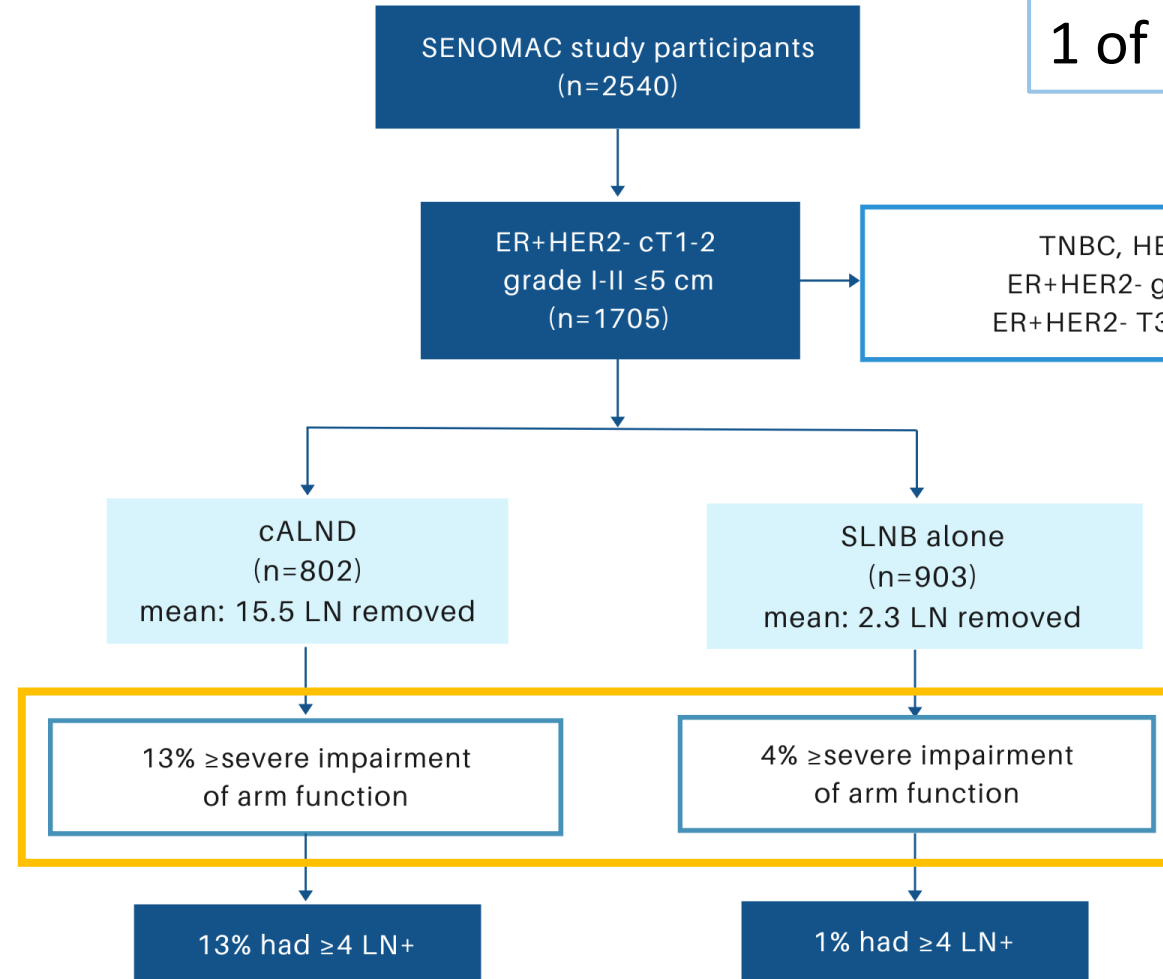




# SENOMAC (POST-HOC ANALYSIS)

2015-2021

Number Needed to Harm:  
1 of 11 cALND

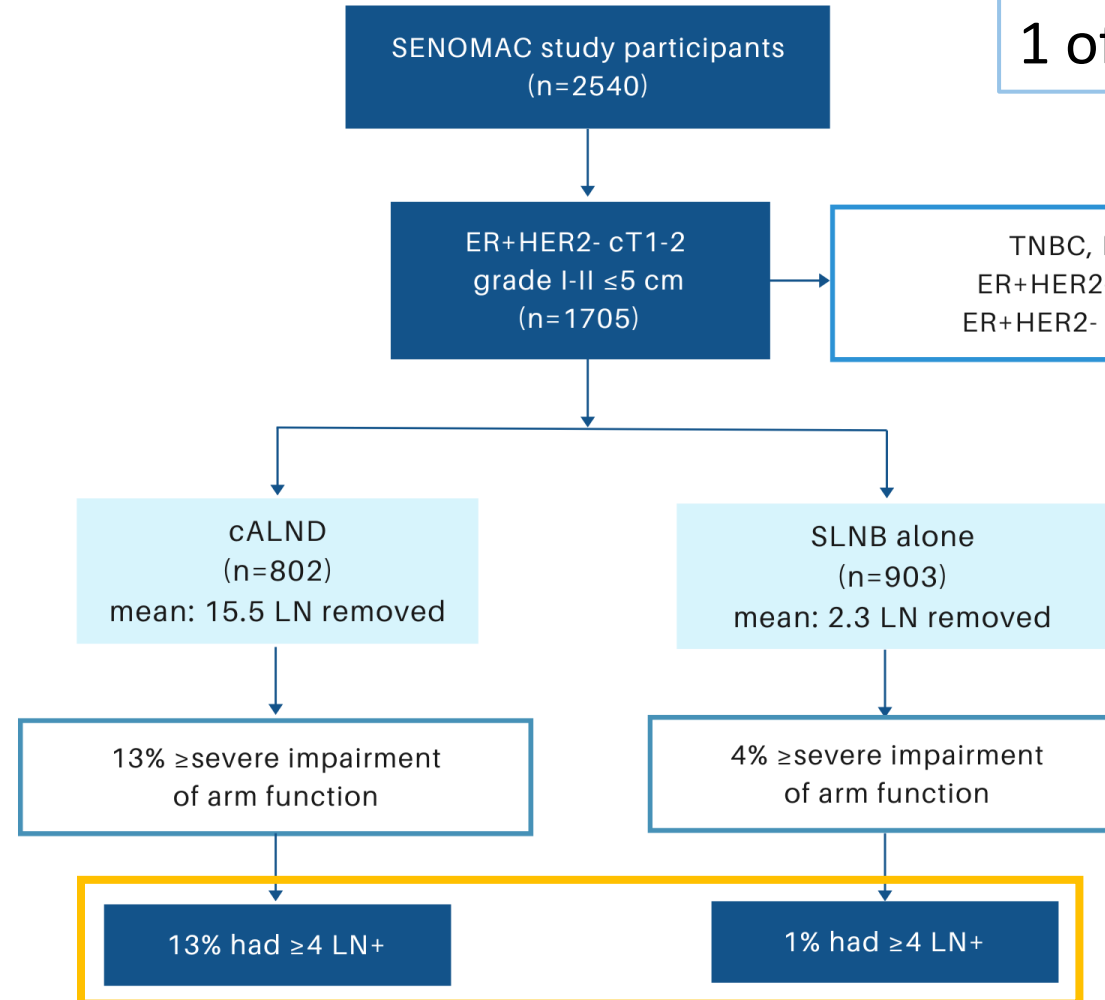


**NNH = 1 / 0.09 = 11**  
11 cALND results in one patient with ≥ severe impairment in physical arm function

# SENOMAC (POST-HOC ANALYSIS)

2015-2021

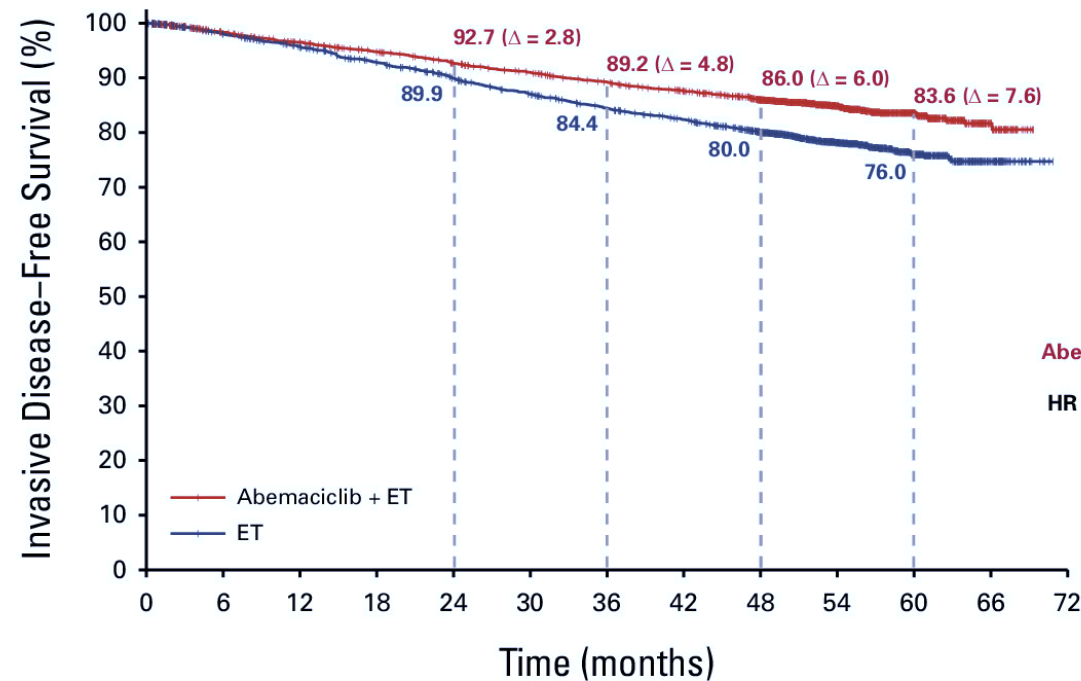
Number Needed to Diagnose:  
1 of 8 cALND



**NND = 1 / 0.12 = 8**  
8 patients needed to undergo  
cALND to identify 1 candidate  
for adjuvant abemaciclib per  
monarchE eligibility criteria

# SENOMAC (POST-HOC ANALYSIS WITH MONARCHE DATA)

2015-2021



$$\text{NNT} = 1 / 0.076 = 13$$

13 patients need to be treated with two years of abemaciclib to avoid 1 IDFS event at 5-years

Number Needed to Treat:  
1 of 13 cALND

No. at risk:

—	2808	2621	2549	2479	2408	2347	2284	2220	2095	1175	490	74	0
—	2829	2653	2573	2474	2374	2281	2195	2125	1974	1124	473	67	0

## SENOMAC (POST-HOC ANALYSIS)

2015-2021

**NND x NNT = 104 patients**

would need to undergo cALND to avoid one invasive disease-free survival event at 5-years due to the use of abemaciclib;

**NNH = 11 patients**

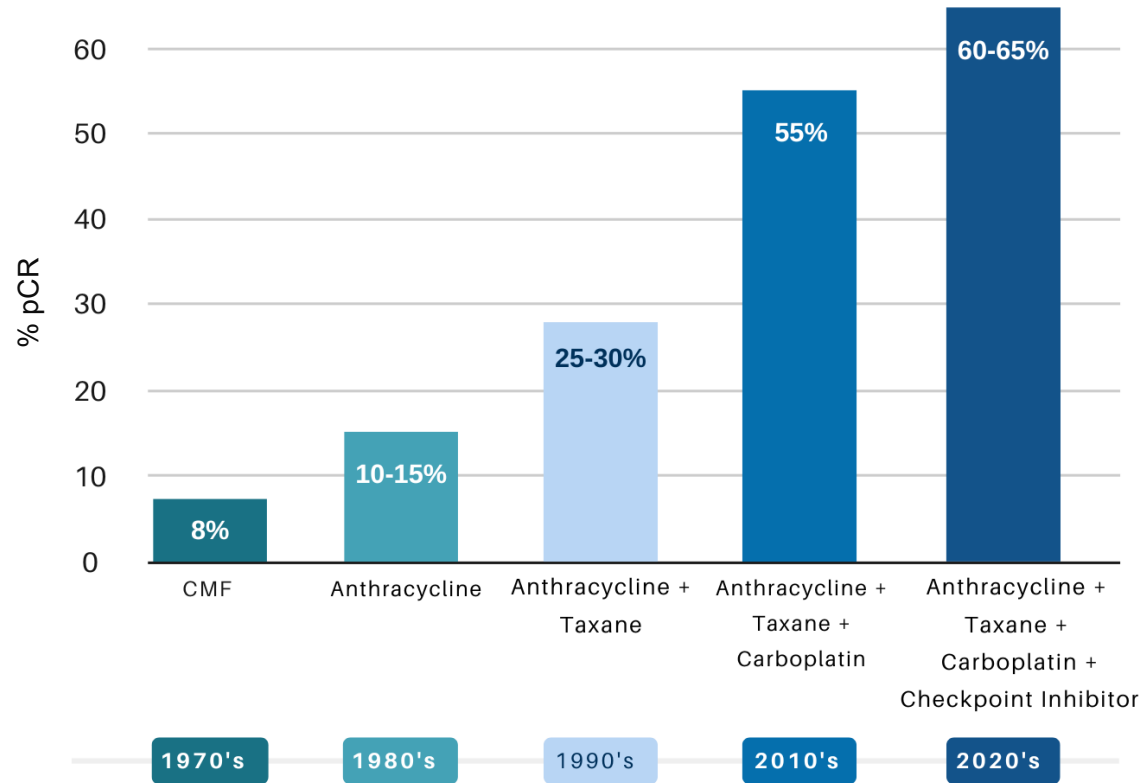
needing to undergo cALND results to harm one patient with severe or very severe impairment in physical arm function

**\*cALND is likely to do more harm than good!**

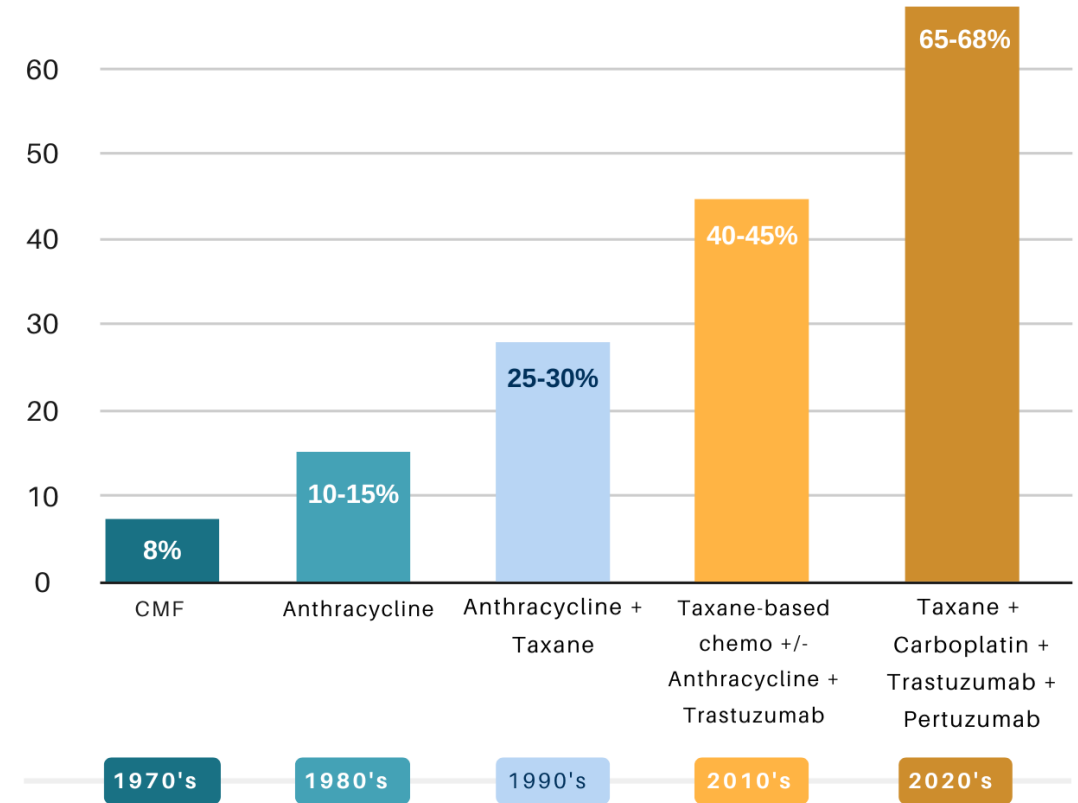
# Clinically node positive (cN+) patients

# IMPROVING pCR WITH NAC IN TNBC AND HER2+ CANCERS

## TNBC



## HER2+





## OMISSION OF ALND IN cN1 / ypN0

	Type of Surgery	No. ypN0 with SLN alone	% AxRT	Median FU (months)	Axillary Recurrence	Distant Recurrence
<b>IEO Milan</b> (n=147) 2000-2010	SLNB	70	35%	61	<b>0</b>	12.8% at 4 yrs
<b>Mayo</b> (n=315) 2009-2019	SLNB	159	78%	34	<b>0.6% at 3 yrs</b>	-
<b>McGill</b> (n=132) 2013-2018	SLNB	60	71%	36	<b>0</b>	13.7% at 5 yrs
<b>MSKCC</b> (n=555) 2014-2019	SLNB	234	78%	35	<b>0.4% at 3 yrs</b>	6.1% at 4 yrs
<b>EUBREAST 06</b> (n=1144) 2014-2020	SLNB	666	78%	50	<b>0.8% at 3 yrs</b>	7.8% at 3 yrs
	TAD	478	85%	32	<b>0.5% at 3 yrs</b>	7.3% at 3 yrs
<b>NEOSENTITURK</b> (n=2358) 2018-2020	SLNB / TAD	1179	100%	28	<b>0.3% at 3 yrs</b>	-

Galimberti et al, EJSO 2016; Piltin et al, Ann Surg Onc 2020; Wong et al, Ann Surg Onc 2021;  
 Barrio et al, JAMA Oncol 2021; Montagna et al, JAMA Oncol 2024; Cabioglu et al, SABCS 2022  
 Adapted from Mittendorf SABCS 2023

# RESIDUAL ITCs POST NAC: OPBC-05 / ICARO STUDY

T1-4 N0-3 breast cancers  
(March 2008-May 2022; N = 694)

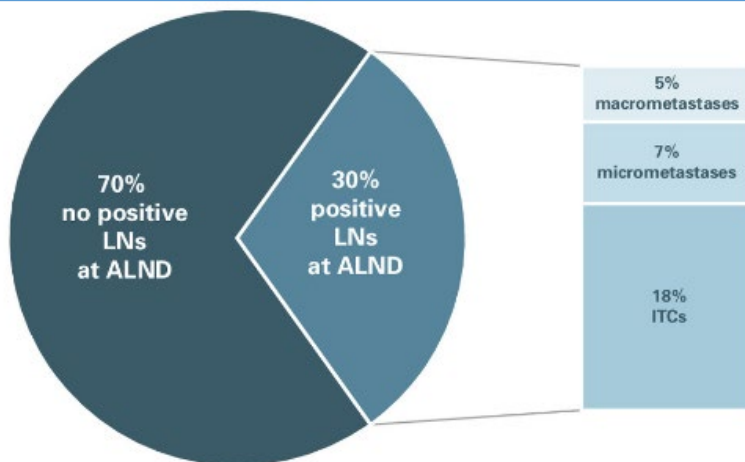
- Retrospective review of pts Stage I-III with residual ITCs in SLNB post-NAC
- 62 centers, 18 countries
- 74% clinically node + prior to chemo

Excluded	(n = 111)
No SLNB (ALND only)	(n = 76)
No adjuvant therapy details	(n = 12)
No neoadjuvant chemotherapy	(n = 10)
Neoadjuvant endocrine therapy	(n = 4)
Micrometastases in the SLN	(n = 3)
Single tracer only (cN+ at presentation;	n = 2)
Failed mapping	(n = 2)
SLNB before NAC	(n = 1)
Stage IV	(n = 1)

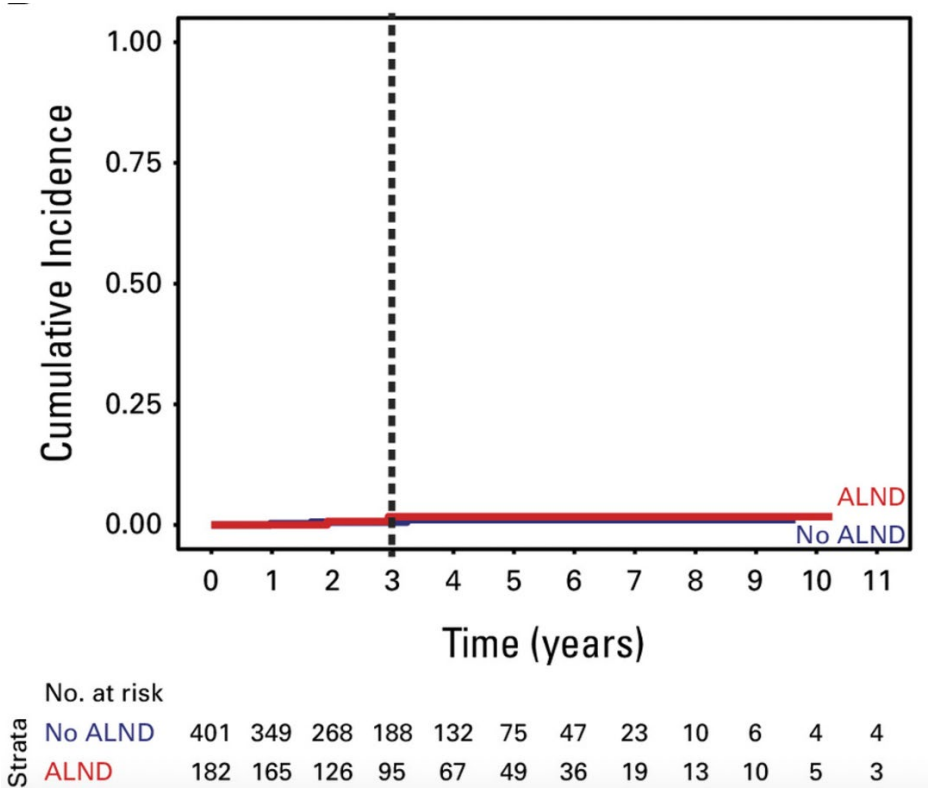
Patients with ITCs on SLNB/TAD/MARI (n = 583)

ALND (n = 182)

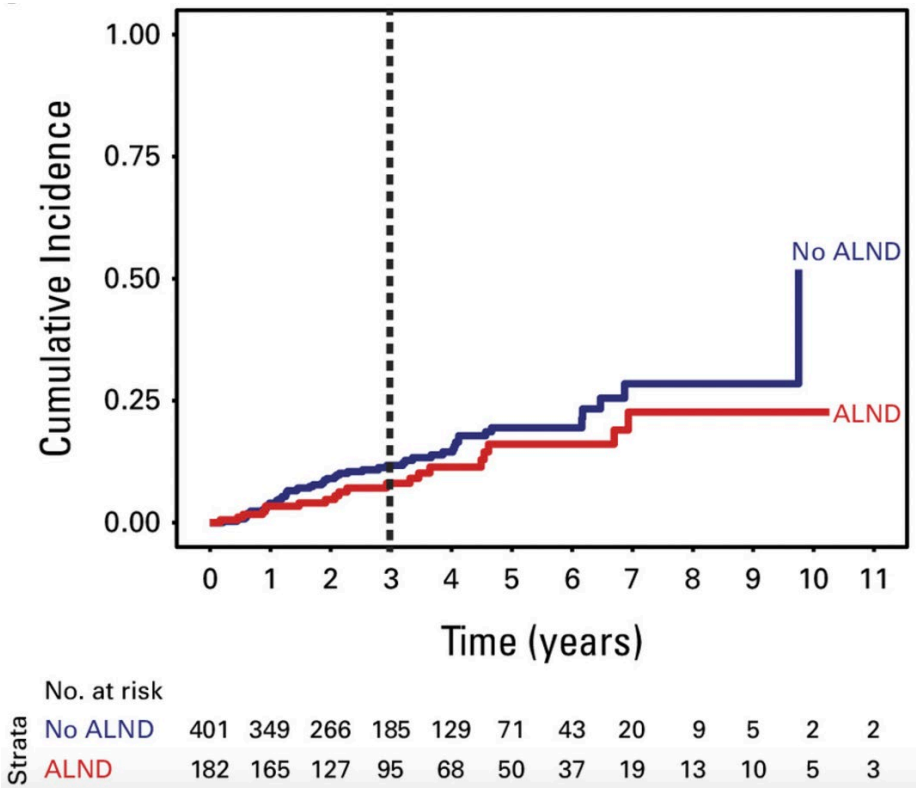
No ALND (n = 401)



RESIDUAL ITCS POST NAC: OPBC-05/ ICARO STUDY  
OUTCOMES WITH OMISSION OF ALND



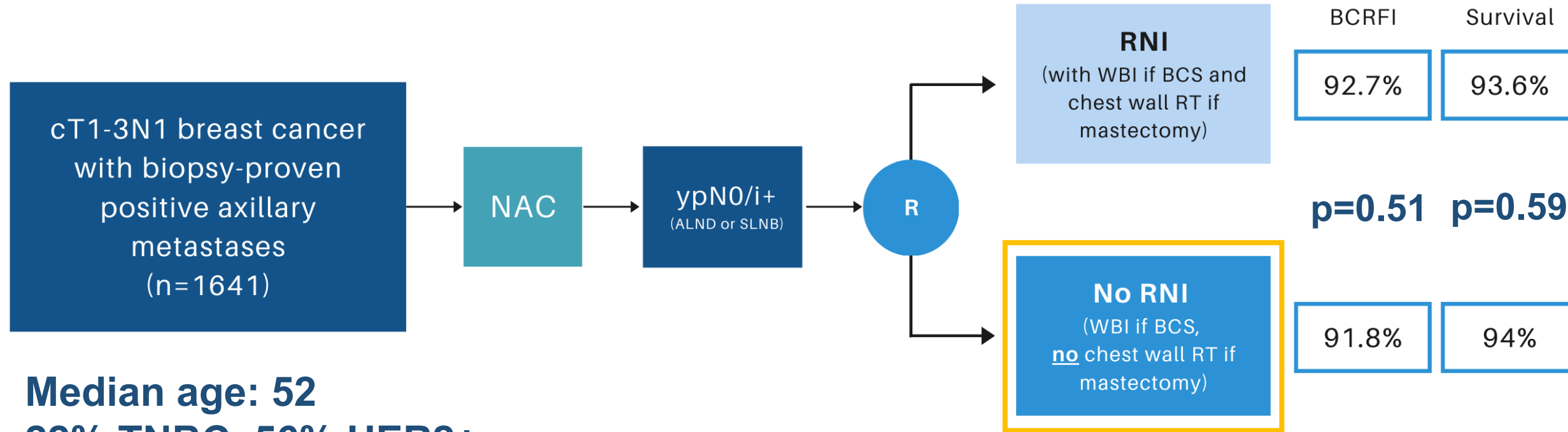
No diff. in isolated axillary recurrences at 5 yrs  
(ALND 1.7% v No ALND 1.1%;  $P = 0.7$ )



No diff. in any invasive recurrence at 5 yrs  
(ALND 16% v No ALND 19%;  $P = 0.13$ )

# NRG / NSABP B-51 / RTOG 1304

2013-2020



**Median age: 52**

**22% TNBC, 56% HER2+**

**Breast pCR: 78.5%**

**42% Mastectomy, 58% BCS**

**55.5% SLNB alone**

Type of surgery (mastectomy, BCS);  
HR status; HER2 status;  
Adjuvant chemotherapy (yes/no); Breast pCR (yes/no)

## Summary (cN+ population):

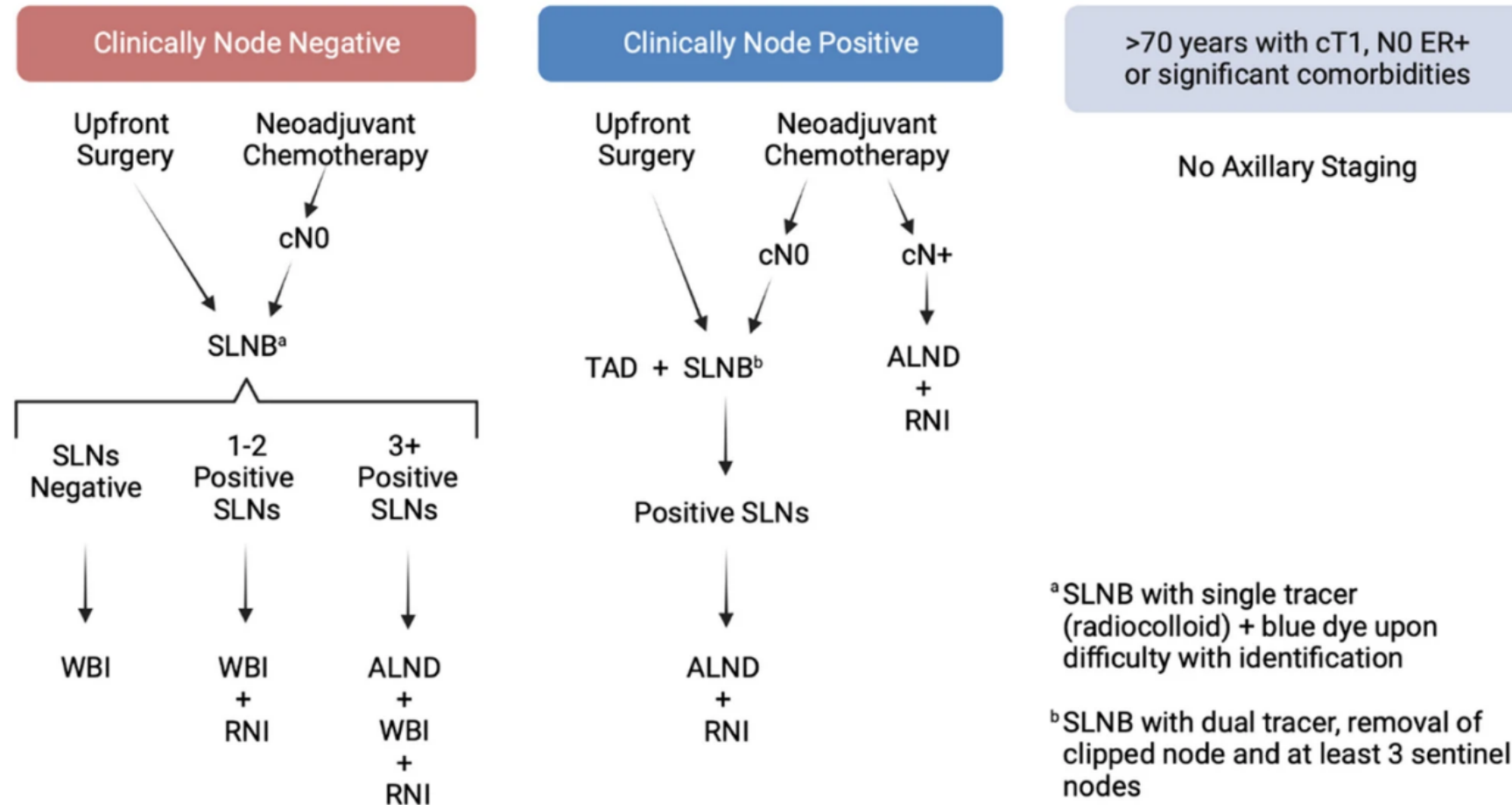
- Omission of ALND + RNI is appropriate for cN1 patients who convert to cN0/ypN0 after NAC
- Omission of ALND is appropriate for similar patients with residual ITCs; role of RNI remains less clear

- Ongoing trials are evaluating whether AxRT can be used in lieu of ALND for cN1 patients with residual nodal disease in the SLN post NAC

# Current Axillary Management Algorithm

From: Axillary Management: How Much Is Too Much?

## Summary of Axillary Management Algorithm



Summary of Axillary Management Algorithm



# Thank you

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## Any Questions?