Axillary Surgery is No Longer Needed for Clinically Node-Negative Post-Menopausal Patients: Yes

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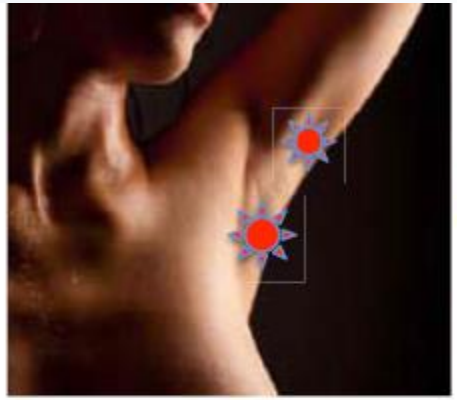
Disclosures

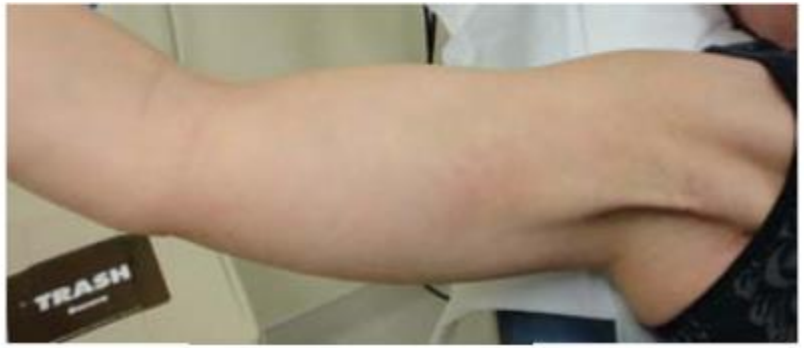
- Emory
- NRG Oncology
- NCI
- Varian
- BioAscend
- MJH Life Sciences
- There will be no discussion of off-label drug or device use or references to proprietary technology

Morbidity of Surgical Evaluation of the Axilla

Lymphedema
(10-15%)



Chronic Pain
(5-10%)

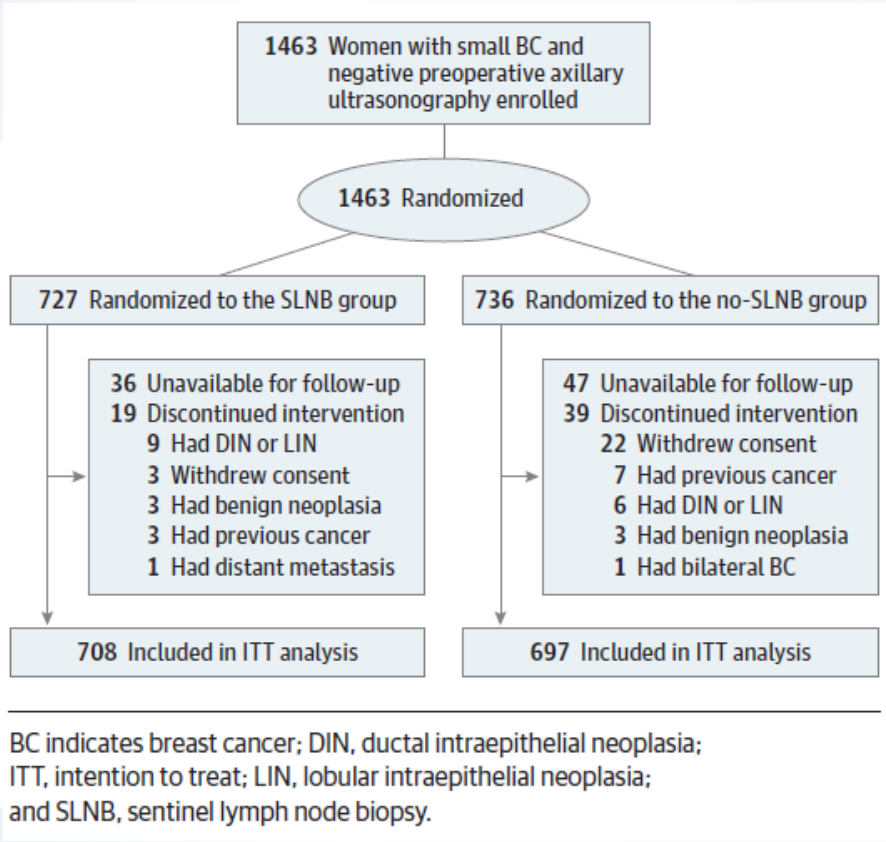


Axillary Web Syndrome
(30-50%)

SOUND and INSEMA Trials

SOUND

- cT1N0 invasive breast cancer (≤ 2.0cm)
- ★ Negative pre-op axillary ultrasound

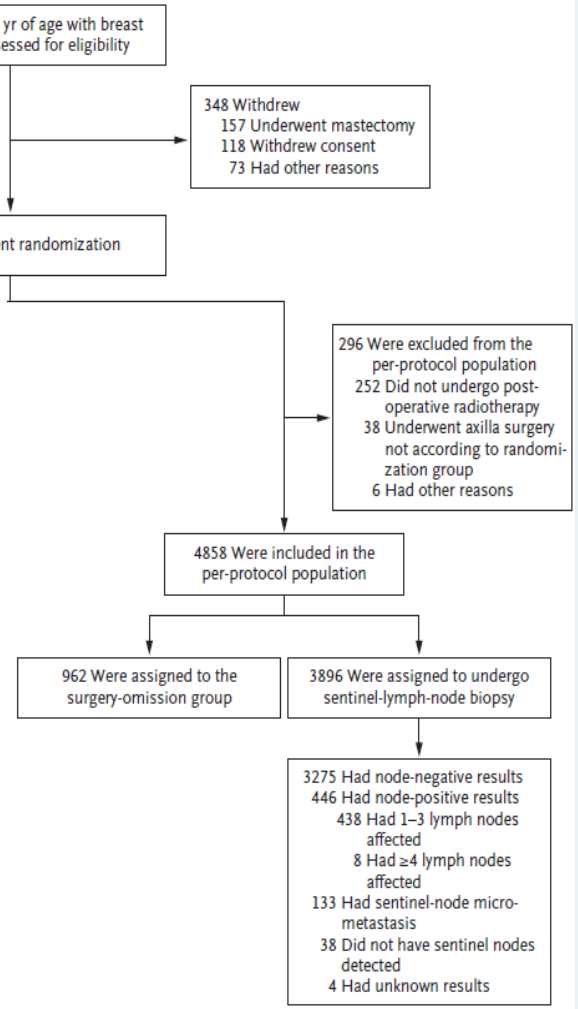


BC indicates breast cancer; DIN, ductal intraepithelial neoplasia; ITT, intention to treat; LIN, lobular intraepithelial neoplasia; and SLNB, sentinel lymph node biopsy.

Gentilini et al., JAMA Oncology, 2023

INSEMA

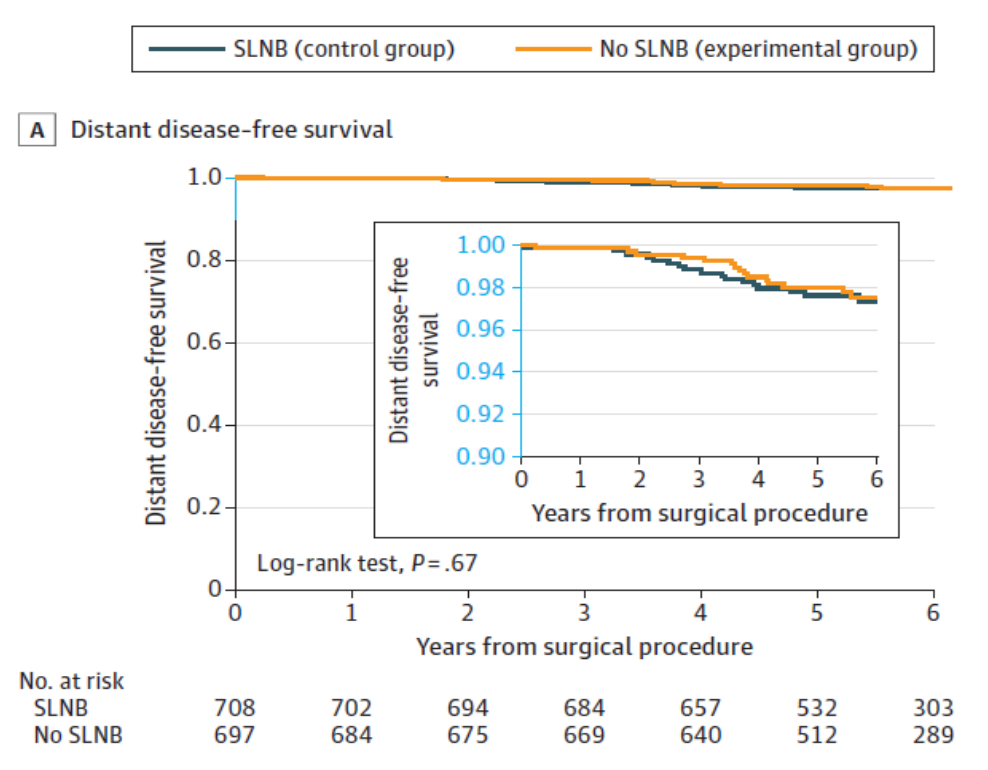
- 90% cT1N0 invasive breast cancer (≤ 2.0cm)
- 10% cT2N0 (2-5cm)
- ★ Negative pre-op axillary ultrasound



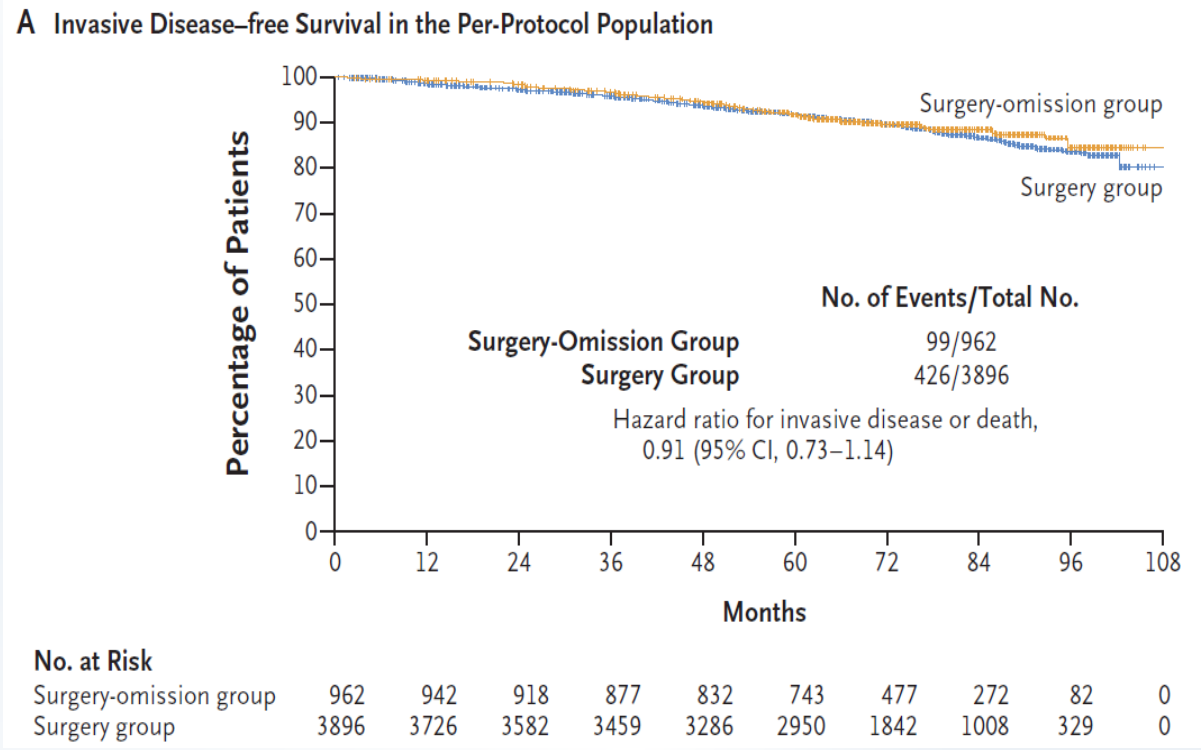
Reimer et al., NEJM, 2024

Primary Endpoints

SOUND



INSEMA



No differences in DFS or OS

No difference in axillary recurrence rates (~0.4% vs. 0.7%)

No differences in OS

Gentilini et al., JAMA Oncology, 2023

Reimer et al., NEJM, 2024

SOUND and INSEMA Patient, Tumor, and Treatment Characteristics

- ≥ 80% age 50 years or older
- ≥ 75% postmenopausal
- ≥ 80% pT1
- 85% pN0
- ≥ 80% Gr1 or 2
- ≥ 87% HR+, Her2-
- 13-20% received chemotherapy
- ≥ 90% received endocrine therapy
- ≥ 98% received radiation (almost all WBI, ~10% received PBI on SOUND)

Reimer et al., NEJM, 2024; Gentilini et al., JAMA Oncology, 2023

2025 ASCO Guideline Update: Sentinel Lymph Node Biopsy in Early-Stage Breast Cancer

Findings from multi-institutional trials in academic and community practice settings indicate that patients with low-risk breast cancer and negative nodal status (confirmed by pre-operative ultrasound) may safely forego sentinel nodal biopsy and avoid any axillary surgery if:

Post-menopausal &

Age >50 &

pT1 &

HR+/Her2- &

Gr 1 or 2 disease &

Receive radiation treatment &

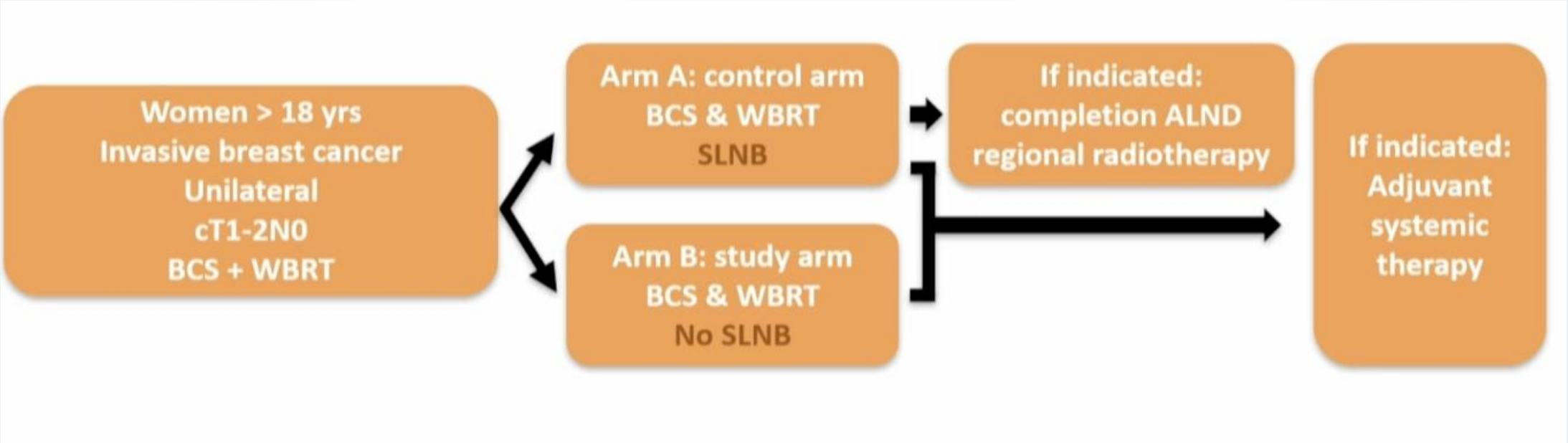
Receive hormone therapy

Under-represented:

- Lobular
- TNBC
- HER2+
- Gr 3
- T2 tumors
- Mastectomy

Park et al., JCO, 2025

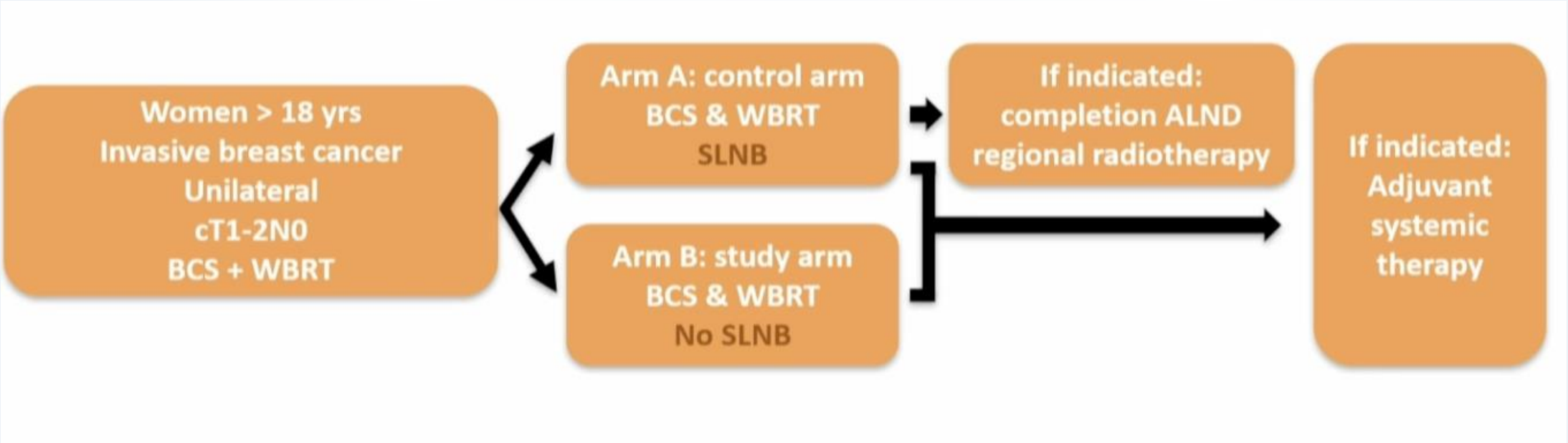
BOOG 2013-08



- No difference in primary endpoint of 5-year regional recurrence free survival
- Majority of patients >50 years with cT1, HR+/Her2-, Gr 1 or 2 tumors

Smidt et al. SABCS 2025

BOOG 2013-08



- No difference in primary endpoint of 5-year regional recurrence free survival
- Majority of patients >50 years with cT1, HR+/Her2-, Gr 1 or 2 tumors
- **<50% of patients received endocrine therapy**

Smidt et al. SABCS 2025

Systemic Therapy and Radiation Recommendations

- Omission of SLNbx should not alter adjuvant systemic therapy or radiation recommendations in the appropriate patients who can safely forego SLNbx:
  - Post-menopausal &
  - Age >50 &
  - pT1 &
  - ER+/PR+/Her2- &
  - Gr 1 or 2 disease &
  - Receive radiation treatment &
  - Receive hormone therapy?
- **85%** of patients with a negative axillary ultrasound have tumors that are pN0

Park et al., JCO, 2025

Systemic Therapy and Radiation Recommendations

- **In patients with axillary ultrasound that is negative, 13-14.9% pN1 and 0.2-0.6% pN2**
  - Systemic therapy decisions dependent upon genomic assay score (e.g., 21-Gene Recurrence Score) of primary tumor, **except in premenopausal patients with node positive disease** or any patients with pN2 disease
  - Radiation may be omitted in women >/= 65 yo with pT1N0 HR+, HER2- breast cancer, adhere endocrine therapy
  - cdk4/6 inhibitors, PARPi recommended in all patients with pN2 disease
  - Ribociclib recommended in patients with pT2, Gr3, node negative disease
  - PBI not administered in N+ breast cancer
  - RNI administered in N2 and some N1 breast cancers

Park et al., JCO, 2025

Can We Omit Axillary Surgery in Clinically Node-Negative Post-Menopausal Patients?

Can We Omit Axillary Surgery in Clinically Node-Negative Post-Menopausal Patients?

YES

Can we omit sentinel node biopsy in other patients?

OPTIMA

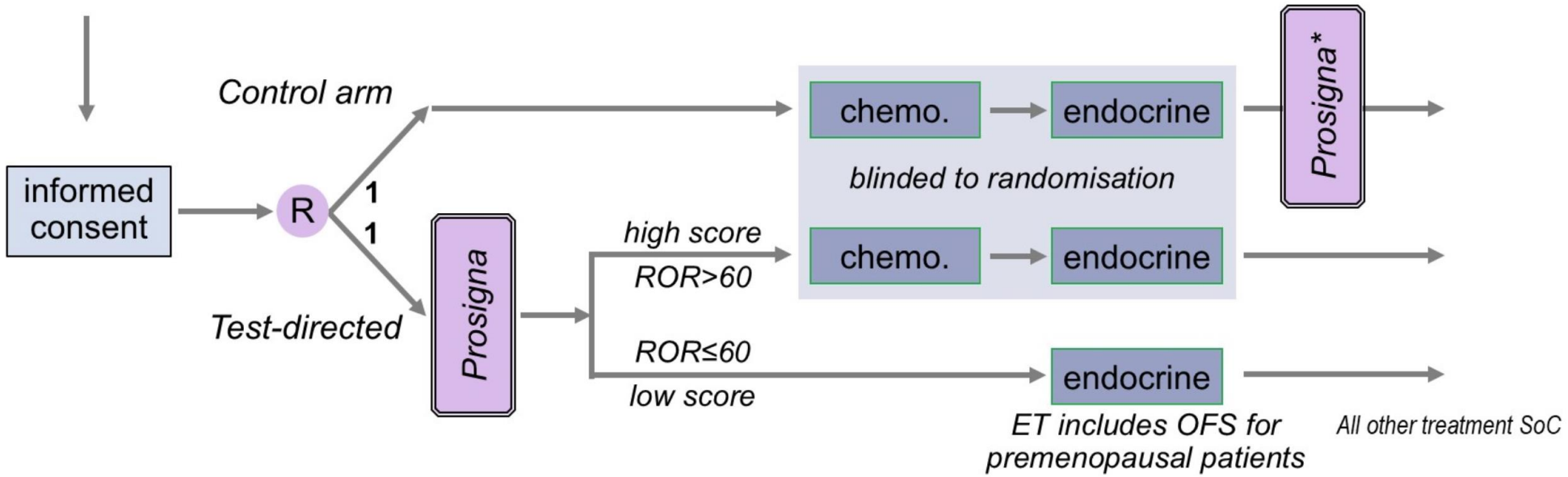
OPTIMA design

ProSigna = PAM50

Main eligibility criteria

*Women & men age ≥40 with excised breast cancer
- ER-pos (IHC>10%) & HER2-neg

*Nodes: ▸0-9N+,
▸minimum T-size requirement if N0/ N1mi
- Neoadjuvant chemotherapy prohibited

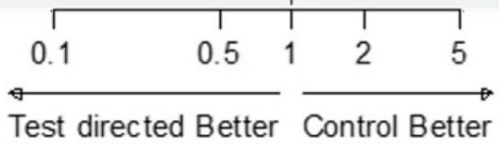


*Control arm Prosigna testing used for analysis only. U.K. control arm testing performed following recruitment completion

Stein et al. 2026 ASCO Annual Meeting

Subgroup analysis: low ROR score population

Subgroup	Test directed	Control	HR (95% CI)
	No. of events/No. of patients		
Overall	76/1421	68/1358	1.06 (0.77 to 1.48)
Menopausual status			
Pre-menopausal	26/559	25/561	1.04 (0.60 to 1.80)
Post-menopausal	50/858	42/791	1.14 (0.76 to 1.71)
Grade			
1 or 2	60/1184	48/1126	1.22 (0.84 to 1.78)
3	16/237	20/232	0.78 (0.40 to 1.50)
Tumour size			
<=30mm	39/809	28/770	1.30 (0.81 to 2.10)
>30mm	37/612	40/588	0.93 (0.60 to 1.46)
Nodal status			
pN1(+/-sn)	56/1063	48/1015	1.11 (0.76 to 1.64)
pN2	20/268	17/243	1.19 (0.62 to 2.29)
Intended Chemotherapy			
Anthracycline containing	6/176	6/163	0.89 (0.29 to 2.76)
Taxane containing	5/163	5/142	1.05 (0.30 to 3.65)
Anthracycline+Taxane	65/1082	57/1053	1.12 (0.79 to 1.60)



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Future Possibilities

- Will PAM50 on the primary tumor become the sole determinant of chemotherapy benefit (even in premenopausal women, ≥40 years of age, with up to 9 positive nodes)?
- If so, the diagnostic information from a sentinel node biopsy may be unnecessary for informing chemotherapy decisions even in high-risk patients.
- Will it be possible to omit SLNBx in premenopausal women as well?

Thank you!