

15 Anni di
bjclub breast
Journal
Club

L'IMPORTANZA DELLA RICERCA IN ONCOLOGIA

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Auditorium

Via Altinate, 71

**Introduzione al best
paper nazionale 1**

Mario Giuliano

*Oncologia Medica – Università degli
Studi di Napoli Federico II*

Disclosures

- **Consulting/Advisor:** Roche, AstraZeneca, Lilly, Daichii Sankyo, Novartis, Pfizer, Seagen, MSD, Eisai
- **Honoraria:** Novartis, Pfizer, Lilly, AstraZeneca, Daichii Sankyo
- **Research funding to the Institution:** AstraZeneca
- **Travel, accommodation, expenses:** Lilly, Pfizer, AstraZeneca.

Best paper nazionale 1

Research

JAMA Oncology | **Original Investigation**

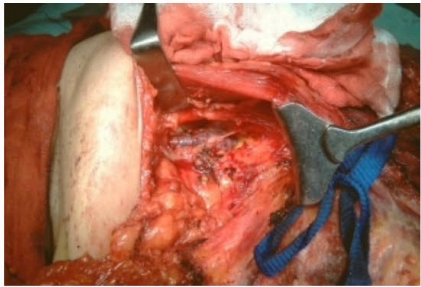
Sentinel Lymph Node Biopsy vs No Axillary Surgery in Patients With Small Breast Cancer and Negative Results on Ultrasonography of Axillary Lymph Nodes The SOUND Randomized Clinical Trial

Oreste Davide Gentilini, MD; Edoardo Botteri, PhD; Claudia Sangalli, BSc; Viviana Galimberti, MD; Mauro Porpiglia, MD; Roberto Agresti, MD; Alberto Luini, MD; Giuseppe Viale, MD; Enrico Cassano, MD; Nickolas Peradze, MD; Antonio Toesca, MD; Giulia Massari, MD; Virgilio Sacchini, MD; Elisabetta Munzone, MD; Maria Cristina Leonardi, MD; Francesca Cattadori, MD; Rosa Di Micco, PhD; Emanuela Esposito, PhD; Adele Sgarella, MD; Silvia Cattaneo, MD; Massimo Busani, MD; Massimo Dessena, MD; Anna Bianchi, MD; Elisabetta Cretella, MD; Francisco Ripoll Orts, MD; Michael Mueller, MD; Corrado Tinterri, MD; Badir Jorge Chahuan Manzur, MD; Chiara Benedetto, PhD; Paolo Veronesi, MD; for the SOUND Trial Group

Evolution of Axillary Surgery in Early Breast Cancer

1960-1980s

ALND



1990s

SLNB for
cN0



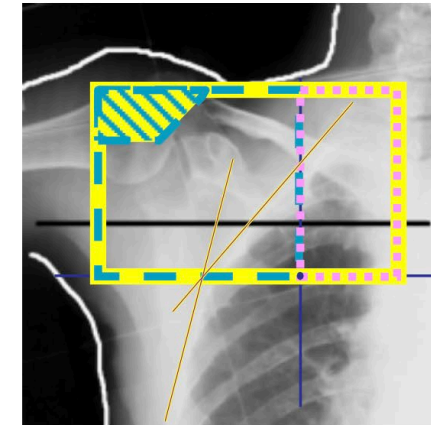
2000s

SLNB \pm RT
for pN+



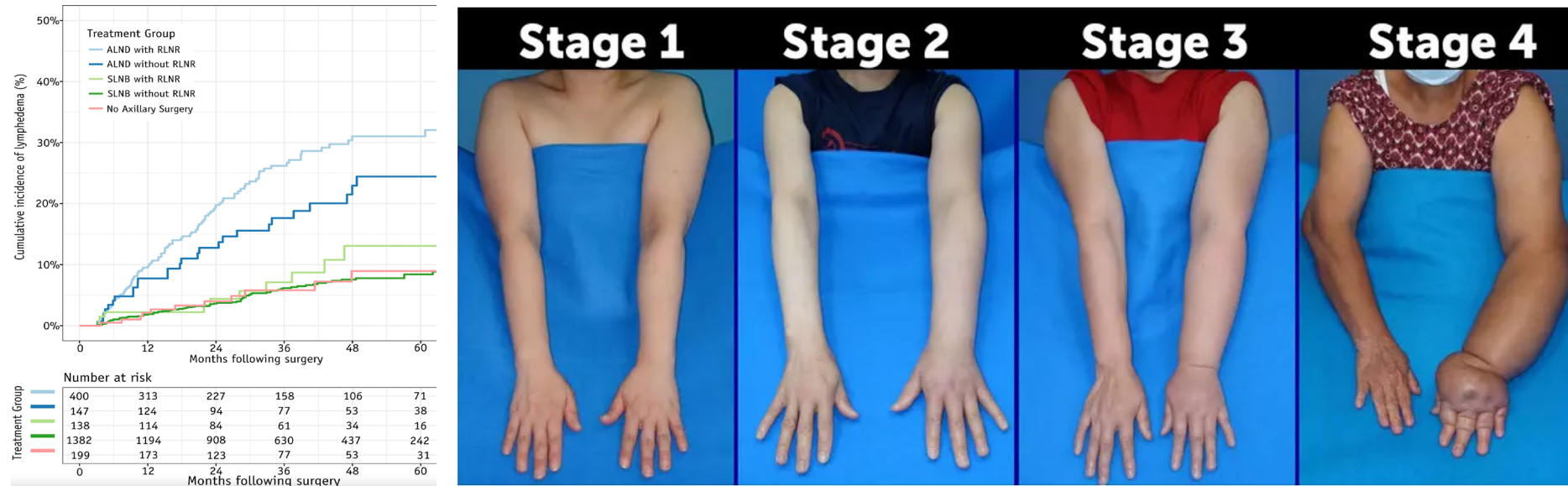
2010s

SLNB for cN1
after NAC



Rationale for axillary surgery de-escalation

Lymphedema in breast cancer



- Relatively frequent (up to 30% at 5 yr) and feared complication following axillary surgery for breast cancer
- Pick incidence after axillary lymph node dissection (ALND) + nodal RT 18-24 months
- Chronic, highly disabling, progressive condition, which negatively impacts quality of life.

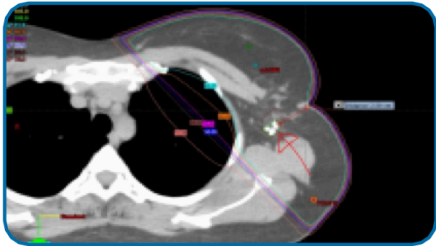
Rationale for axillary surgery de-escalation

Multidisciplinary perspective



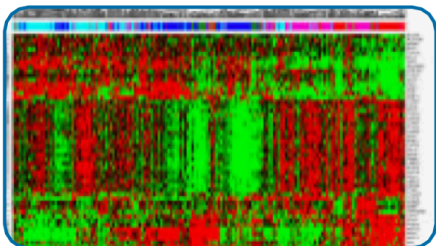
Improvements in systemic therapy and introduction of targeted therapy

- Systemic therapy can adequately treat residual microscopic disease in the axilla, reducing the risk of nodal failure



Improvements in radiotherapy technique after lumpectomy or mastectomy

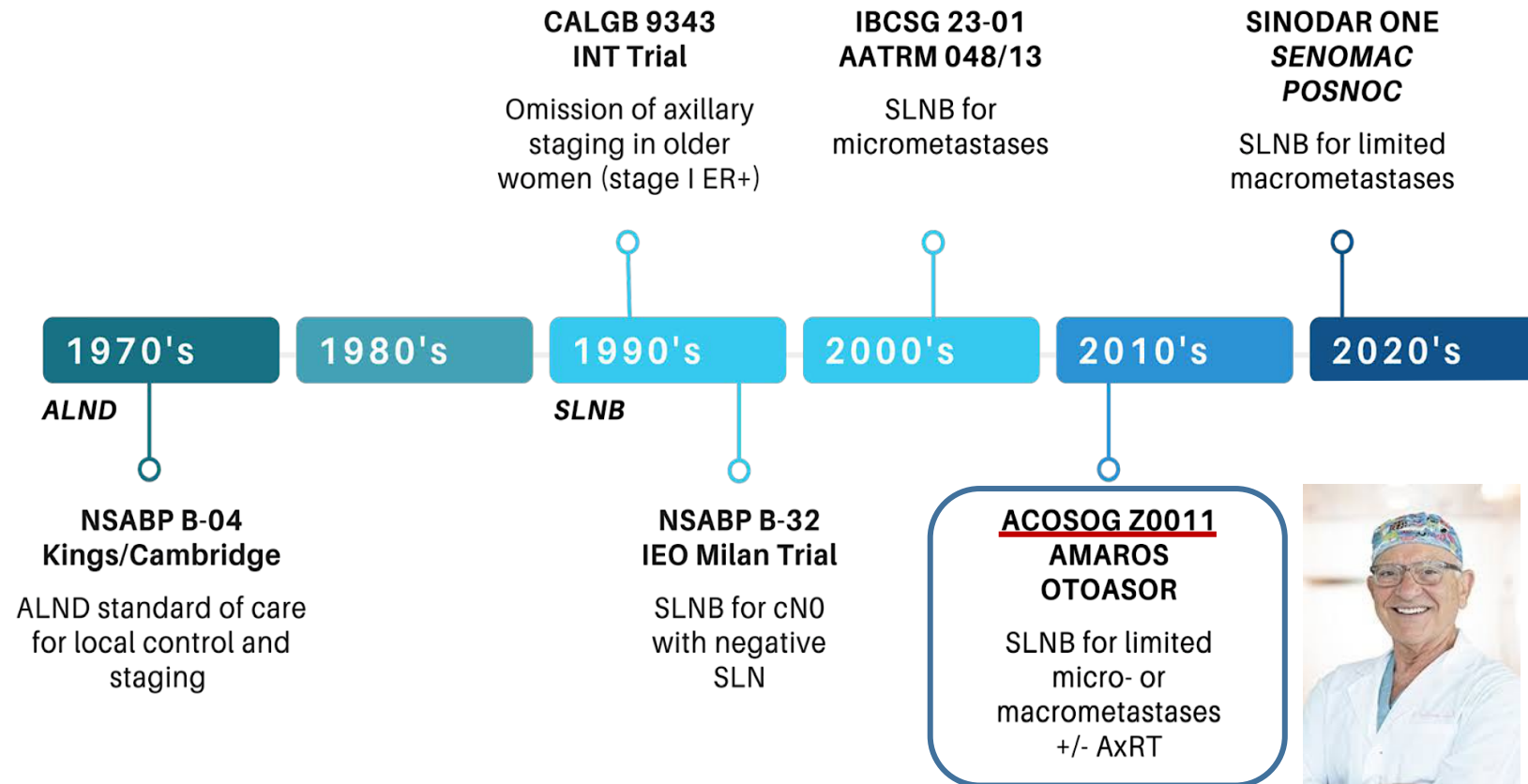
- RT can treat undissected microscopic residual disease in axilla with excellent rates of local control



Decisions for systemic therapy increasingly based on receptor subtype

- Nodal status less important in determining systemic therapy recommendations

Evolution of Axillary Surgery in Early Breast Cancer



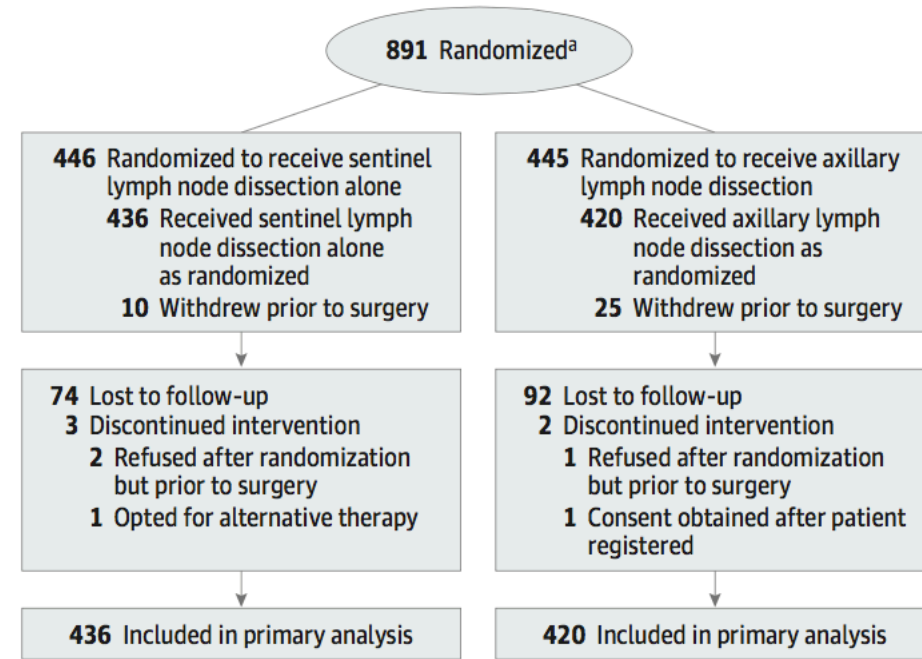
Adapted from T. King

JAMA | Original Investigation

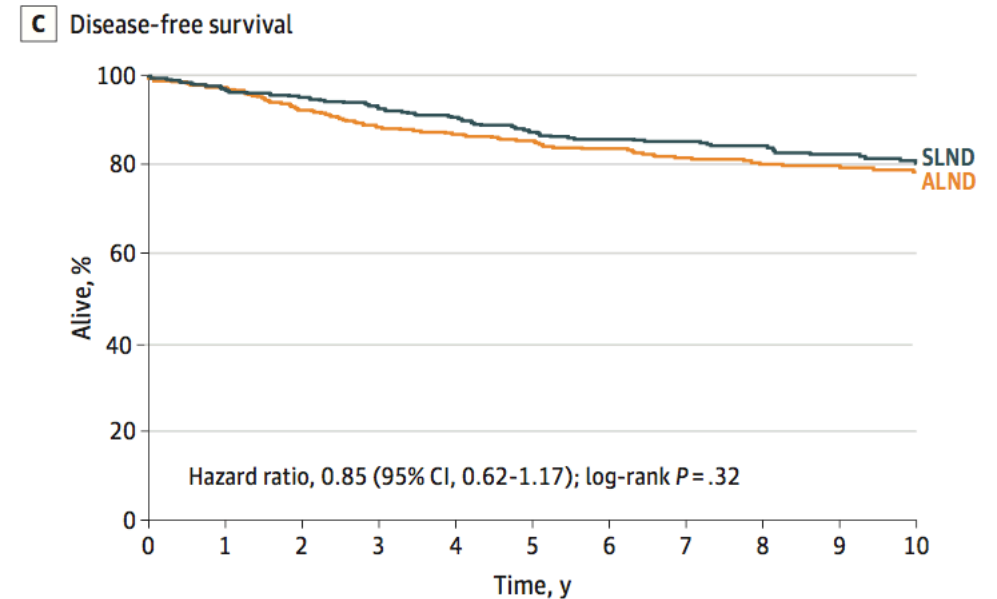
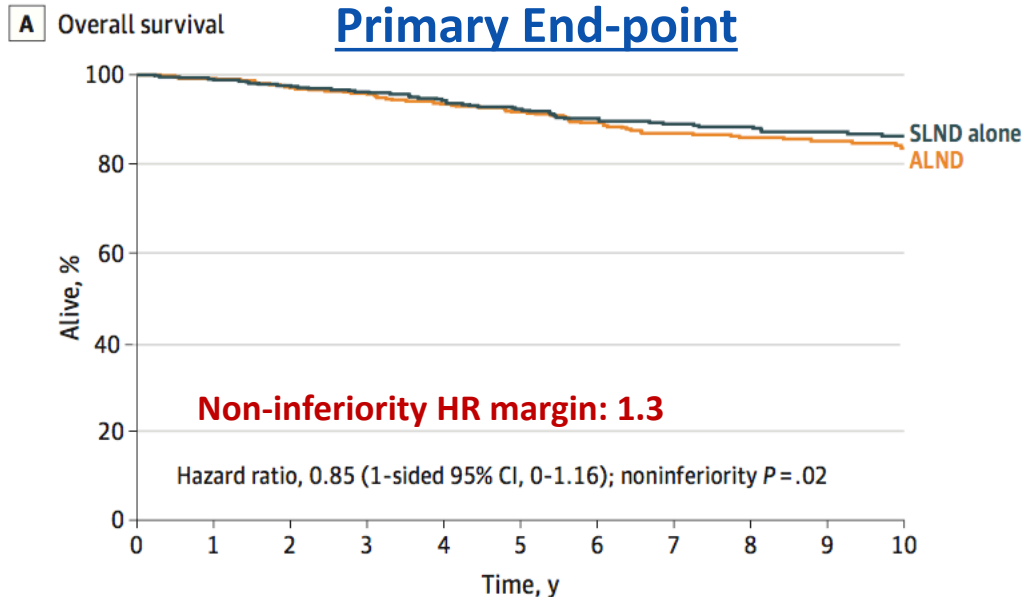
Effect of Axillary Dissection vs No Axillary Dissection on 10-Year Overall Survival Among Women With Invasive Breast Cancer and Sentinel Node Metastasis

The ACOSOG Z0011 (Alliance) Randomized Clinical Trial

Armando E. Giuliano, MD; Karla V. Ballman, PhD; Linda McCall, MS; Peter D. Beitsch, MD; Meghan B. Brennan, RN, ONP, PhD; Pond R. Kelemen, MD; David W. Ollila, MD; Nora M. Hansen, MD; Pat W. Whitworth, MD; Peter W. Blumencranz, MD; A. Marilyn Leitch, MD; Sukamal Saha, MD; Kelly K. Hunt, MD; Monica Morrow, MD



Accrual from 1999 to 2004



SINODAR ONE Trial

Standard arm N = 443		Experimental arm N = 446	
Follow-up (month)	Median 33.3 (20.0–46.7)	Follow-up (month)	Median 34.5 (21.5–46.3)
Standard arm N = 439		Experimental arm N = 440	
Events (N = 16) (1 py recurrence + death)	p value	Events (N = 20) (2 py recurrence + death)	
Mortality = 4 (2 py no breast cancer related death)	0.984	Mortality = 4 (1 py no breast cancer related death)	
Axillary recurrence = 1	0.489	Axillary recurrence = 1	
Ipsilateral breast cancer recurrence = 0	0.169	Ipsilateral breast cancer recurrence = 3	
Distant recurrence = 7	0.815	Distant recurrence = 8	
Second primary tumor = 5	0.779	Second primary tumor = 6	

No statistically significant difference in terms of survival and recurrence was found between the two different groups of treatment

SENOMAC Trial

The NEW ENGLAND JOURNAL *of* MEDICINE

ESTABLISHED IN 1812

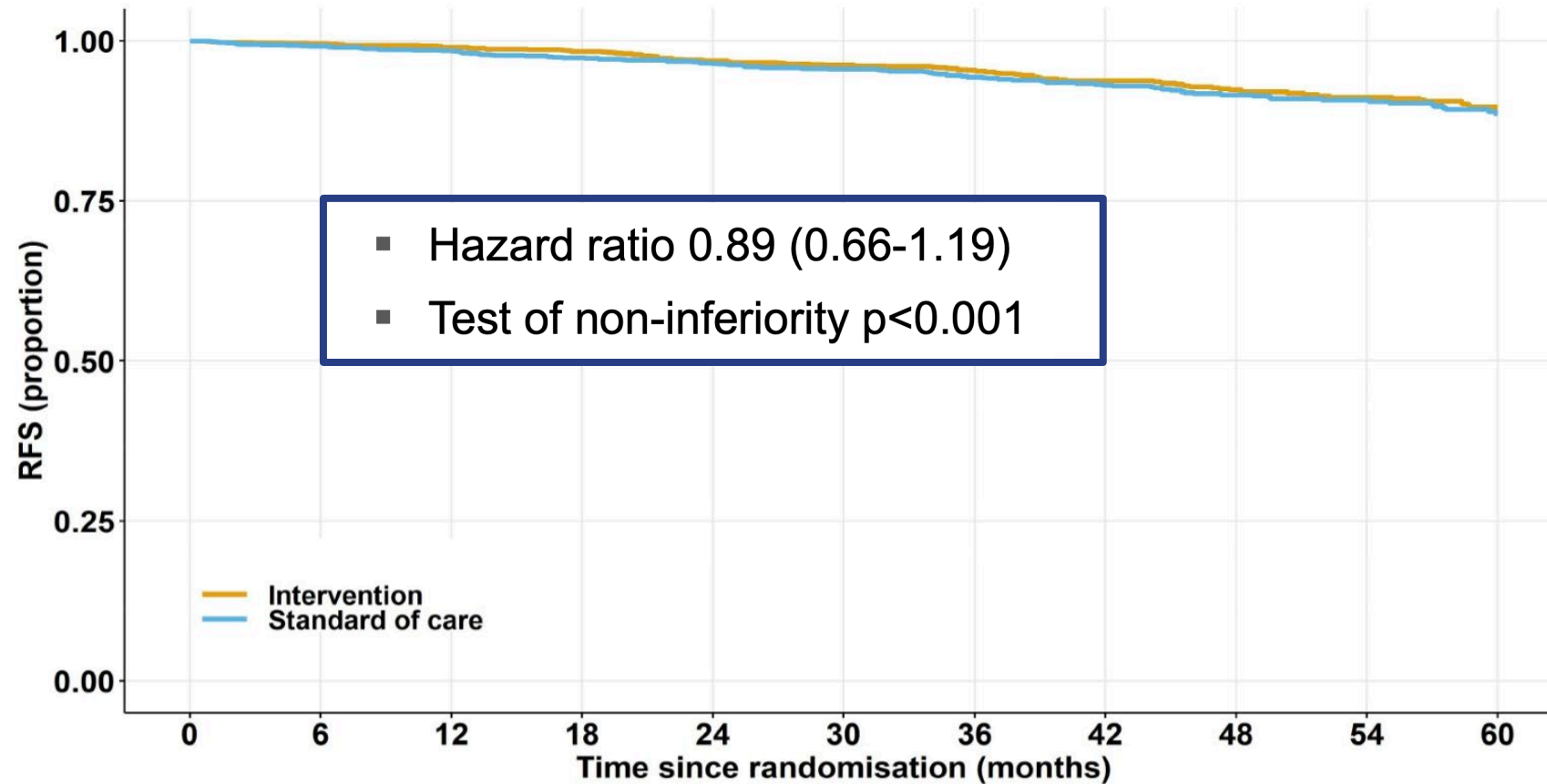
APRIL 4, 2024

VOL. 390 NO. 13

Omitting Axillary Dissection in Breast Cancer with Sentinel-Node Metastases

J. de Boniface, T. Filtenborg Tvedskov, L. Rydén, R. Szulkin, T. Reimer, T. Kühn, M. Kontos, O.D. Gentilini, R. Olofsson Bagge, M. Sund, D. Lundstedt, M. Appelgren, J. Ahlgren, S. Norenstedt, F. Celebioglu, H. Sackey, I. Scheel Andersen, U. Hoyer, P.F. Nyman, E. Vikhe Patil, E. Wieslander, H. Dahl Nissen, S. Alkner, Y. Andersson, B.V. Offersen, L. Bergkvist, J. Frisell, and P. Christiansen, for the SENOMAC Trialists' Group*

SENOMAC Trial: Recurrence-free survival



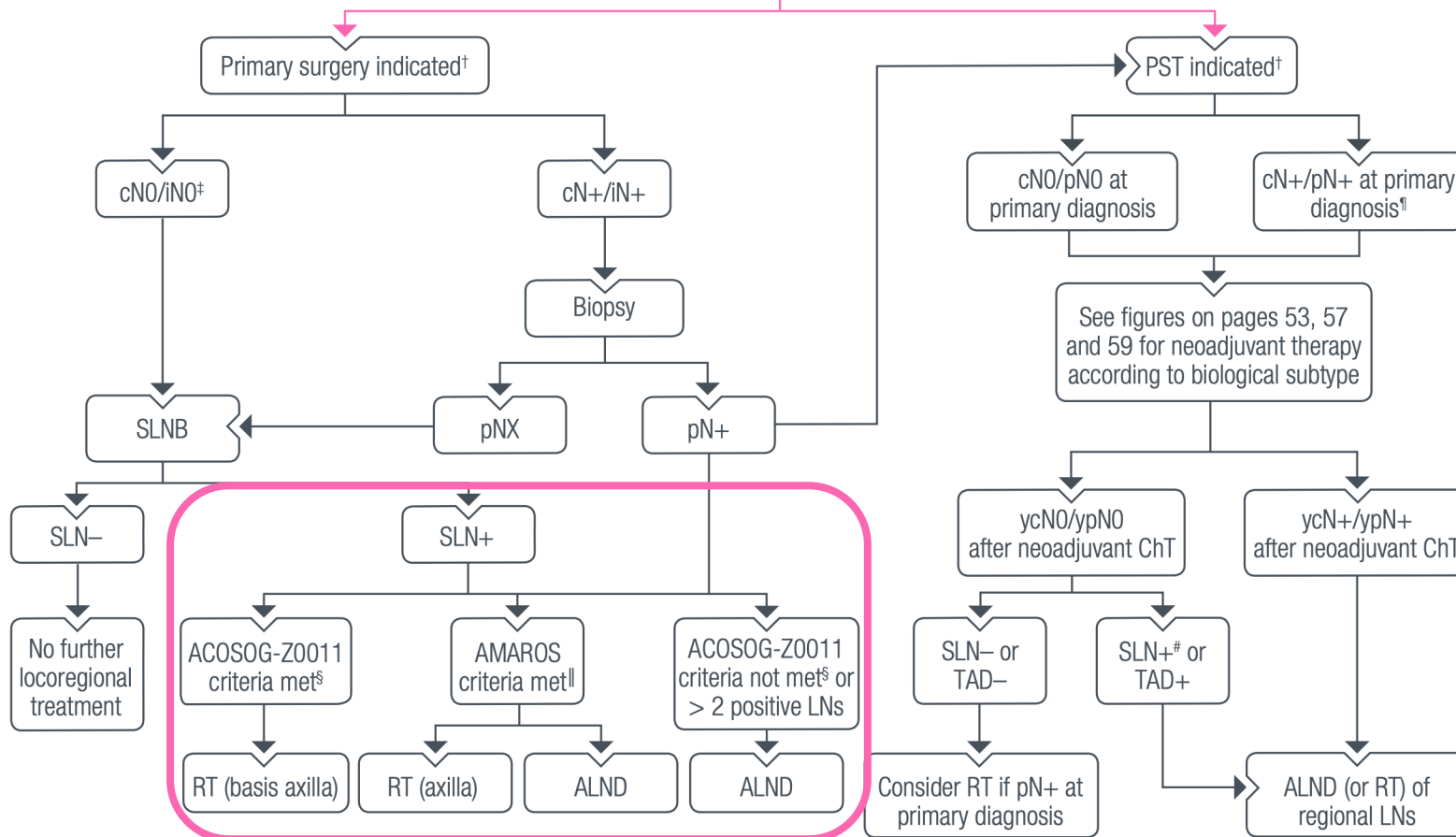
Number at risk

—	1335	1276	1069	832	577	307
—	1205	1159	1009	772	544	274

Management of axillary LN in EBC

ESMO Breast Cancer Pocket Guidelines 2023

Management of ALN involvement in EBC*



• *Sentinel LN biopsy (SLNB) is the standard axillary surgery in all clinical (c)NO patients*

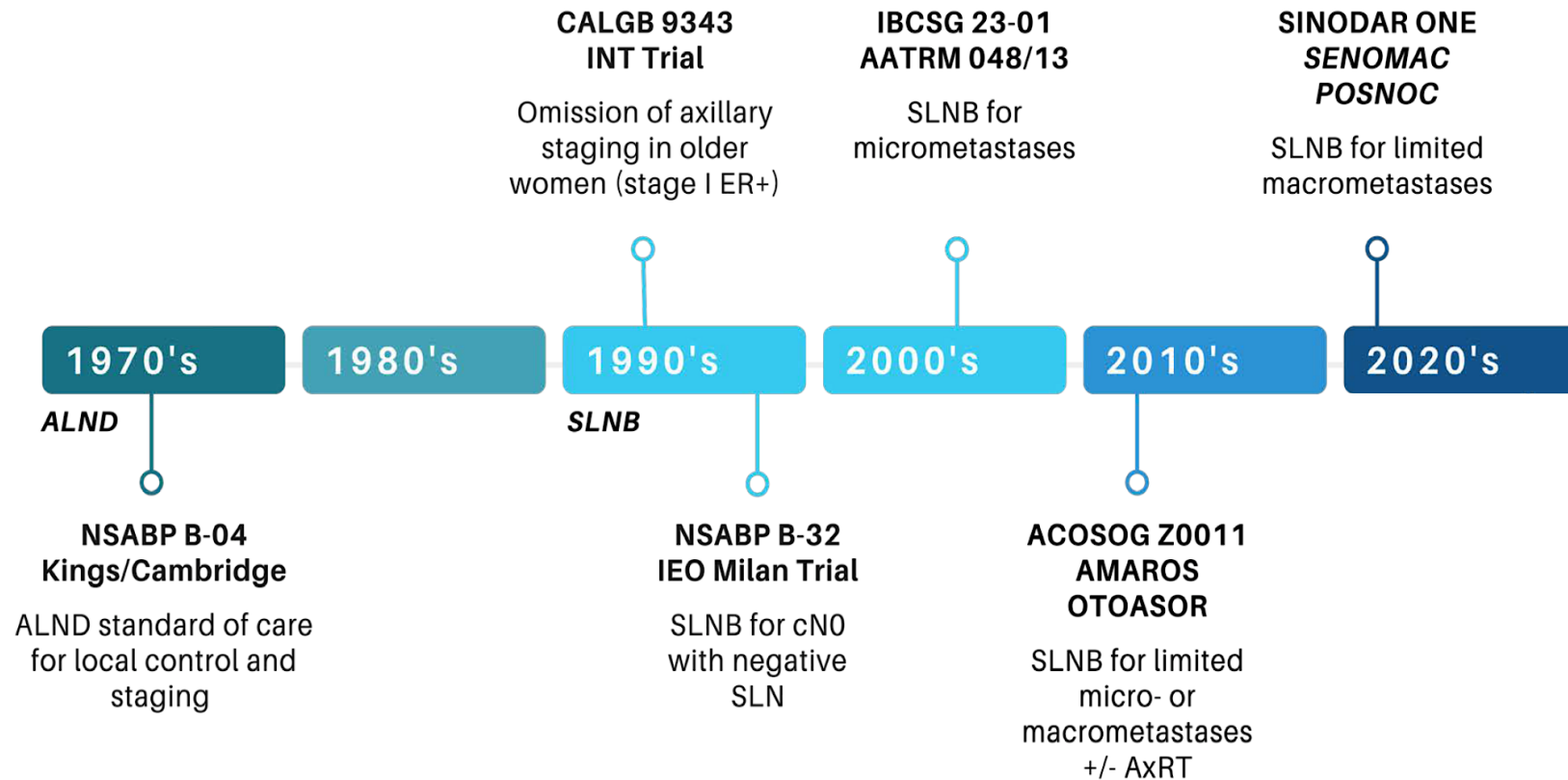
• *ALND following 1-2 SLN+ is generally recommended only in cases of expected high axillary disease burden or impact on further adjuvant systemic treatment decisions*

ALND omission for cN0 1-2+ SLN patients

Potential implications for staging and subsequent definition of adjuvant systemic therapy in HR+/HER2- EBC:

1. Multigene testing in HR+/HER2- EBC ✓
2. Adjuvant Olaparib for BRCA 1/2 mut. patients ✓
Consider ALND for BRCA 1/2 mut. patients with positive SLN
3. Adjuvant CDK 4/6i. for moderate/high-risk HR+/HER2- EBC ✓

Evolution of Axillary Surgery in Early Breast Cancer



Adapted from T. King

Omission of SLNB

Implications for systemic treatment and RT

Missing positive SLN may impact adjuvant treatment decision:

1. HR+/HER2- EBC

- Adjuvant chemotherapy (premenopause)
- Tam +/- OFS vs AI + OFS (premenopause)
- Extended endocrine therapy
- Eligibility to adjuvant Abemaciclib and Ribociclib

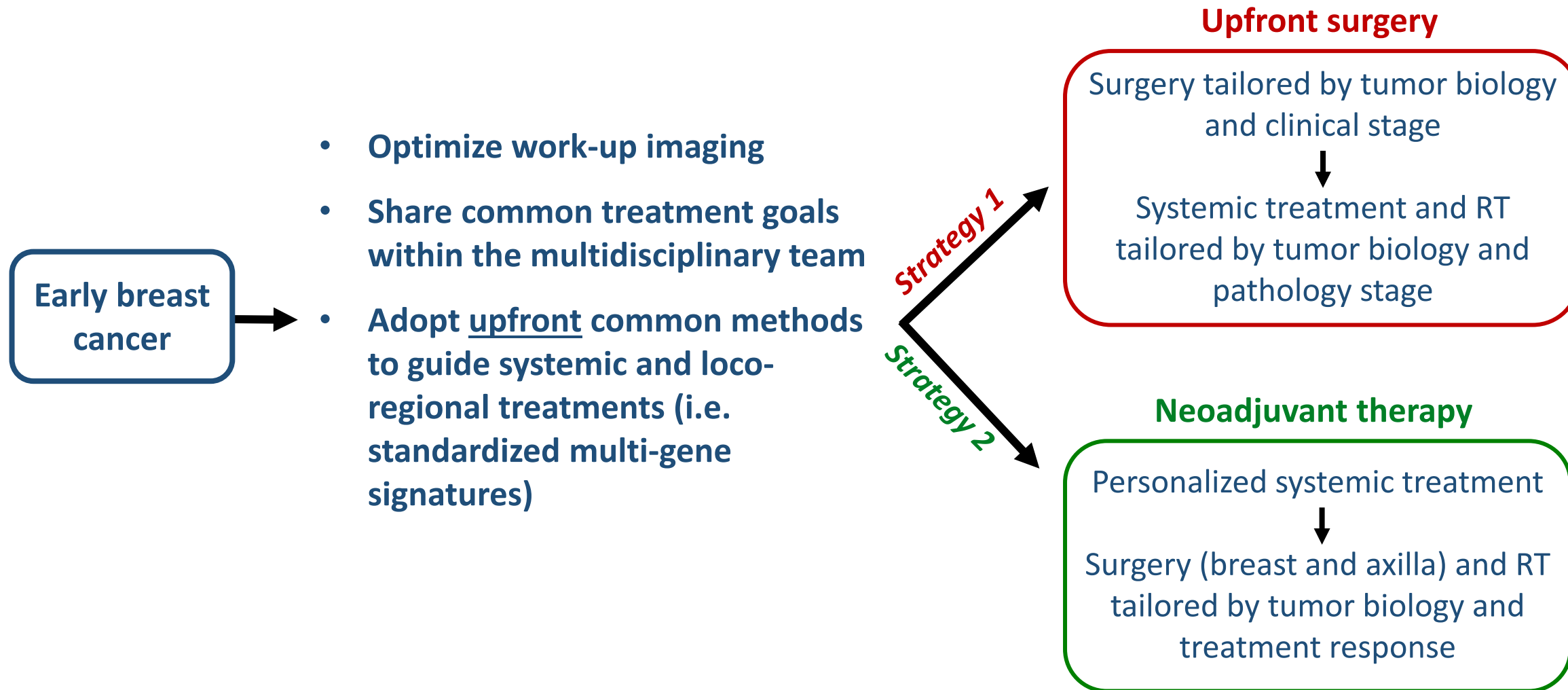
2. HER2-positive EBC

- Choice of adjuvant systemic therapy (TH vs A/EC → TH or TCH + Pertuzumab)
- Regional nodal irradiation

3. Triple negative EBC

- Choice of adjuvant chemotherapy regimen (TC vs A/EC → T)
- Eligibility to Olaparib in BRCA 1/2 mut. patients (i.e. pT1)
- Regional nodal irradiation

Need for an integrated multidisciplinary model



Practice-changing trials should be designed considering advancement and evolution of both systemic and locoregional treatments