

Axillary Surgery Is No Longer Needed for Clinically Node Negative, Postmenopausal Patients

No

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My competitor:



https://en.wikipedia.org/wiki/Mylin_Torres



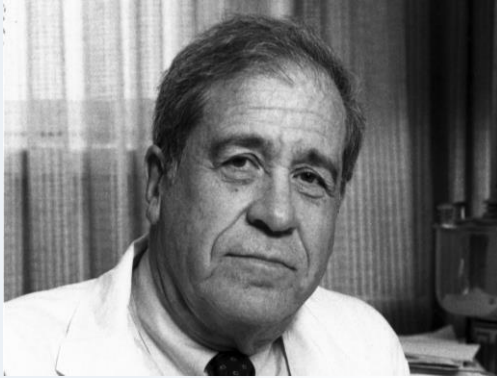
MYLIN TORRES

(UNITED STATES)

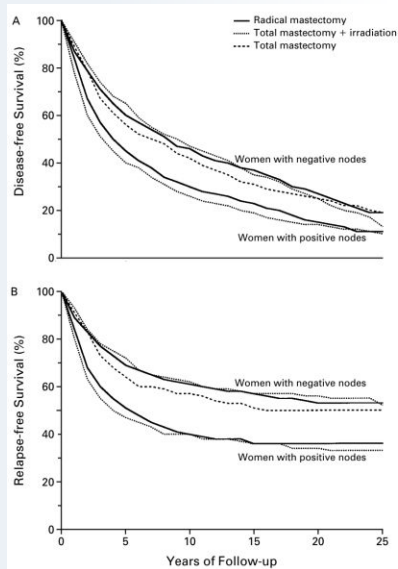
- 1995 NCAA Rookie of the Year
Harvard University
- 1992 USTA National Clay Court
Championships girls 16's singles
champion
- 1992 USTA National
Sportsmanship Award



Why are we even talking about this?



"Our data indicate that leaving positive nodes unremoved did not significantly increase the rate of distant recurrence or breast-cancer-related mortality"



"The number of axillary lymph nodes involved provided the most prominent difference in the proportion of failures"



Table 1. Characteristics of 179 Control Patients and 207 Patients Treated with Cyclophosphamide, Methotrexate and Fluorouracil (CMF), with Observed Failure Proportions.

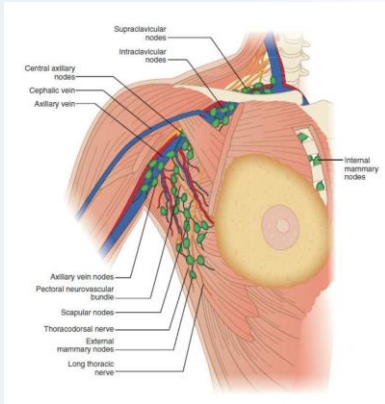
CHARACTERISTIC	EVALUABLE PATIENTS		P VALUE		
	CONTROL		CMF		
	no.	%	no.	%	
Total with recurrence:	43/179	24.0	11/207	5.3	<10 ⁻⁶
Nodes:					
1-3	21/125	16.8*	5/139	3.6	<10 ⁻³
≥4	22/54	40.7*	6/68	8.8	<10 ⁻⁴
Age:					
≤49 yr	17/74	22.9	6/95	6.3	<10 ⁻²
≥50 yr	26/105	24.7	5/112	4.4	<10 ⁻⁴
Menopause:					
Pre	20/82	24.3	5/95	5.2	<10 ⁻³
Post	23/97	23.7	6/112	5.3	10 ⁻⁴
Mastectomy:					
Radical	26/132	19.6*	9/148	6.1	<10 ⁻³
Extended	17/47	36.1*	2/59	3.3	<10 ⁻⁴
Stage:					
T ₁	4/22	18.1	1/18	5.5	0.23
T ₂	31/136	22.7	7/153	4.5	10 ⁻⁵
T ₃	8/21	38.1	3/36	8.3	<10 ⁻²
Histology:					
Ductal	39/158	24.6	9/180	5.0	<10 ⁻⁶
Lobular	4/15	26.6	2/21	9.5	0.18
Other	0/6	—	0/6	—	
Mean follow-up period (mo)	14.0		13.7		

*1-3-nodes vs 4 or more: P <10⁻³.
'Radical vs extended: P = 0.03.

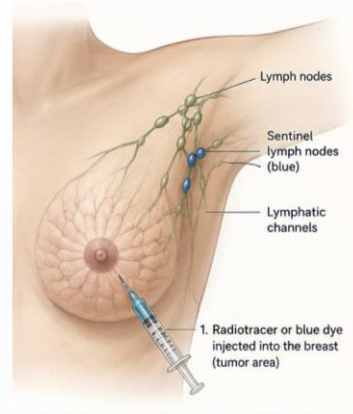
*1-3 nodes vs 4 or more: P <10⁻³.

*Radical vs extended: P = 0.03.

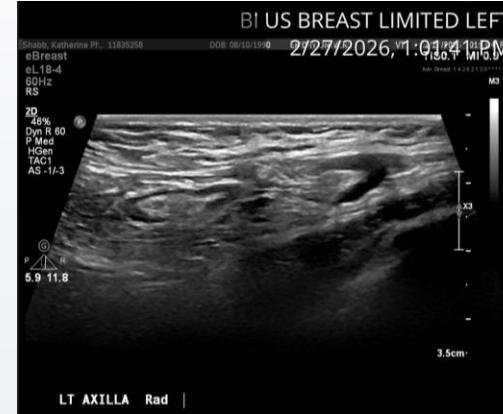
Surgical Staging of the Axilla



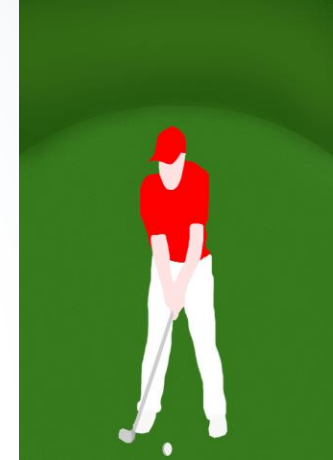
1894



1998



2024

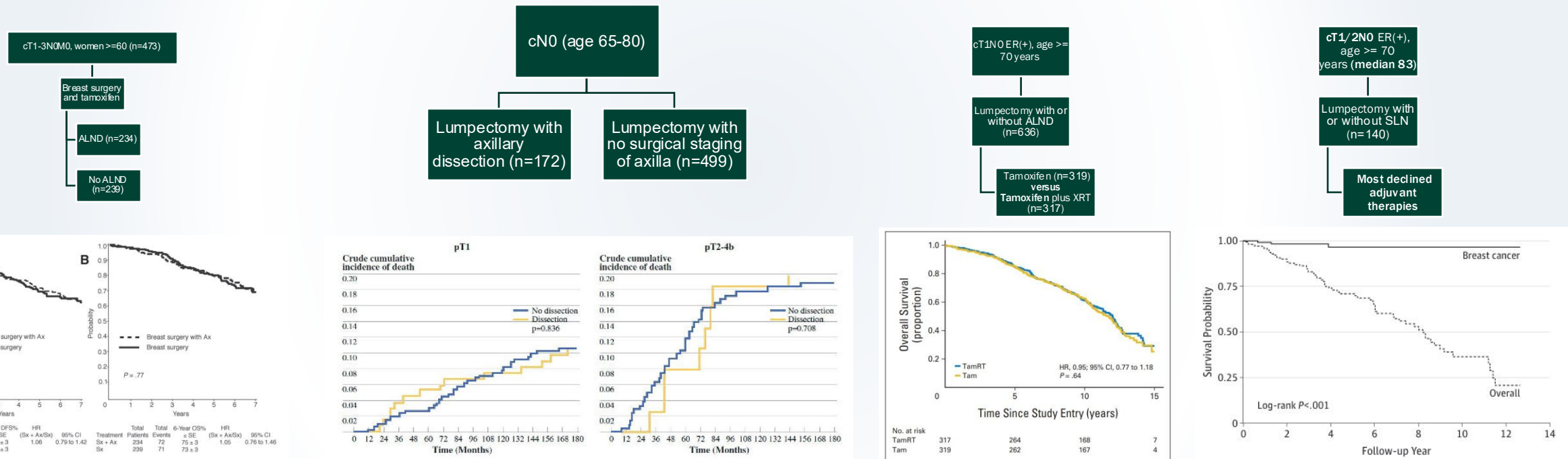


Future?

- There is a need for axillary nodal information to guide adjuvant therapies
- But there has been an increasing push towards de-escalation of surgical therapies in breast cancer

Choosing Wisely (ABIM/SSO/ASCO):

Don't routinely use sentinel node biopsy in clinically node negative women ≥ 70 years of age with early-stage hormone receptor positive, HER2 negative invasive breast cancer.



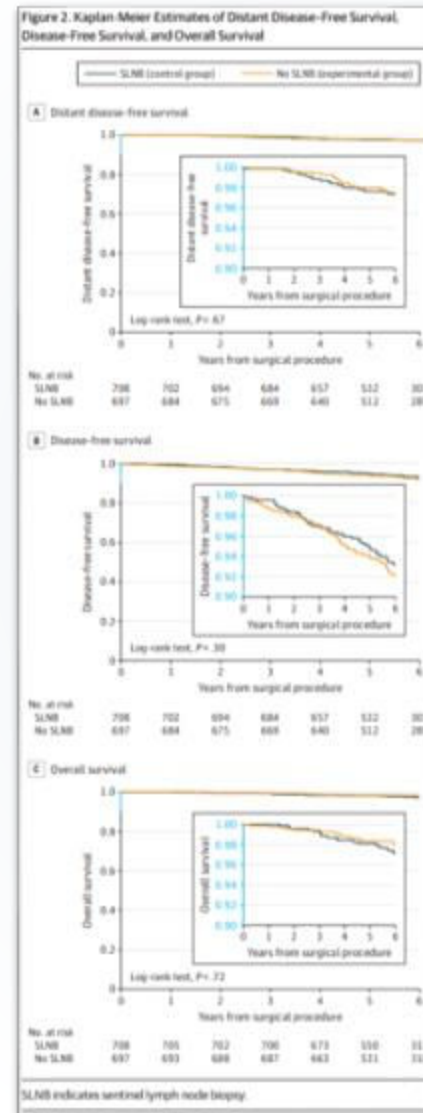
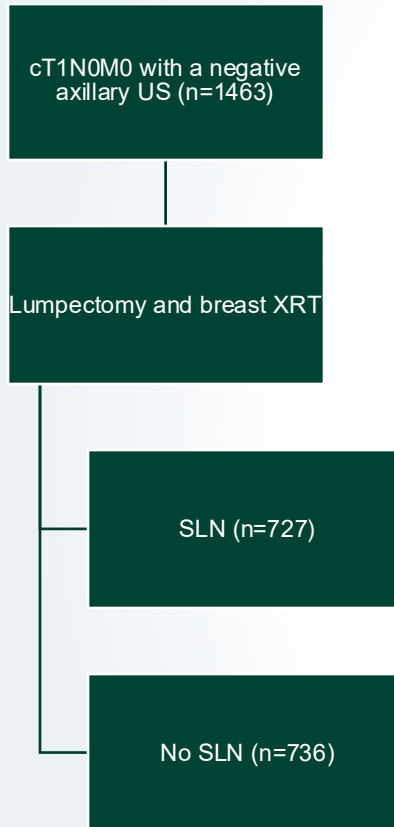
Rudenstam, et al., J Clin Oncol 2006;24(3):337-344

Martelli, et al., Ann Surg Oncol. 2011;18(1):125-33

Hughes, et al., J Clin Oncol 2013;31(19):2382-7

Chung, et al., JAMA Surg 2015;150(7):683-4

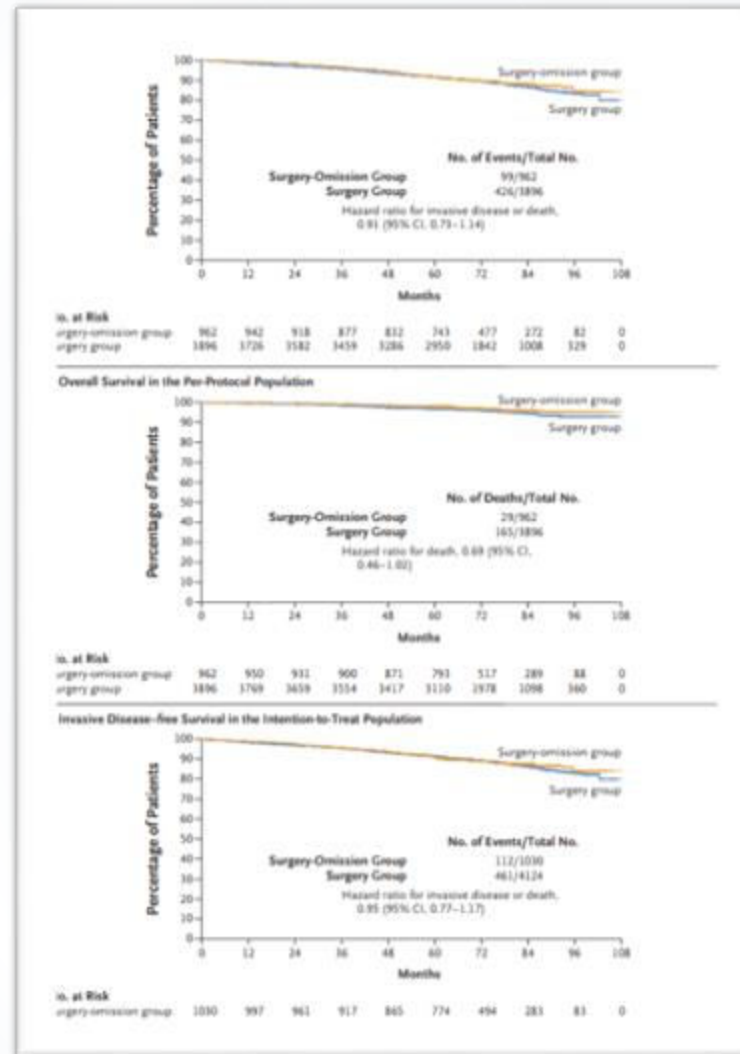
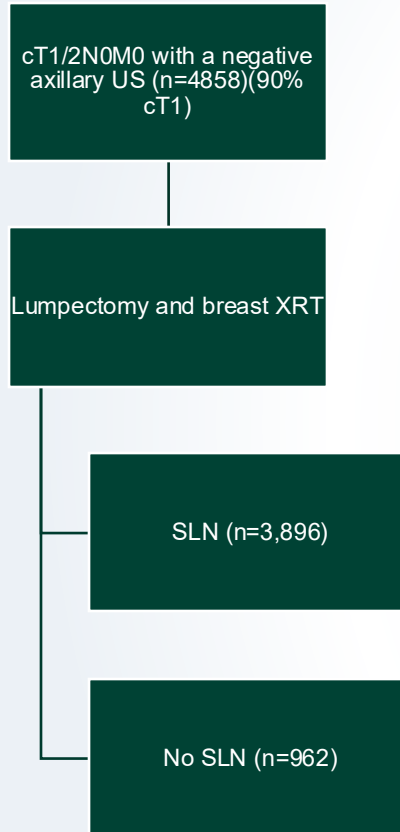
The SOUND Randomized Clinical Trial



- Important facts:
 - pT1 (~95%)
 - Grade 1-2 (~82%)
 - ER (+) (~93%)
 - HER2(-) (>93%)
 - Post-menopausal (~78%)
 - pN2 = 0.6%
 - Axillary failure = 0.4%
- Surgical staging of the axilla still needed for:
 - $\geq$ cT2
 - TNBC
 - HER2(+)
 - Grade 3 tumors

Omission of axillary surgery: Post-menopausal women, cT1N0, gr 1-2, HR(+)HER2(-)

The INSEMA Trial



- Important facts:
 - cT1 (80.8%)
 - Grade 1-2 (>96%)
 - Hormone (+) (>98%)
 - HER2(-) (>96%)
 - ≥ age 50 (~89%)
 - pN2 = 0.2% (SLN)
 - pN2 = 13% (ALND)
 - Axillary failure = 0.5%
- Surgical staging of the axilla still needed for:
 - ≥ cT2
 - TNBC
 - HER2(+)
 - Grade 3 tumors

Omission of axillary surgery: Post-menopausal women, cT1N0, gr 1-2, HR(+)HER2(-)

RxPONDER Trial: Key Findings

Rx for Positive Node, Endocrine Responsive Breast Cancer (SWOG S1007)

Key Findings

Study Design

Population: HR+/HER2-, **1-3 positive nodes**

Randomization: Chemo-endocrine vs. endocrine alone stratified by Oncotype DX Recurrence Score (RS)

Primary endpoint: Invasive disease-free survival (iDFS)

N = 5,018 patients

RS 0-25: No chemotherapy benefit

- 5-yr iDFS: 91.9% (chemo) vs 91.6% (no chemo) [HR 0.97 (95% CI 0.78-1.22)]

Age ≤50 years with RS 0-25:

- Chemotherapy benefit observed
- 5-yr iDFS: 94.2% vs 89.0% (p=0.004) [HR 0.60 (95% CI 0.43-0.83)]

RS 26-100: Chemotherapy benefit

- 5-yr iDFS: 82.6% vs 77.2% [HR 0.70 (95% CI 0.51-0.97)]

Clinical Implications

Oncotype DX guides chemotherapy decisions in node-positive disease in select populations

Not applicable for:

- pN2 disease (>3 nodes positive)
 - 0.2-0.3% chance of pN2 disease (*As high as 13%*)
- And, of course, TNBC and HER2(+)

Omission of axillary surgery: Post-menopausal women, cT1N0, gr 1-2, HR(+)HER2(-)

monarchE and Natalee: The Emergence of CDK4/6 Inhibition

- MonarchE
 - Invasive HR+/HER2- breast cancer
 - Node-positive disease:
 - ≥ 4 positive axillary lymph nodes
 - or **1-3 positive axillary lymph nodes with at least one of the following additional risk factors:**
 - Tumor size ≥ 5 cm
 - Grade 3
 - Ki-67 $\geq 20\%$
 - 2-year iDFS rate was 92.2% in the abemaciclib arm versus 88.7% in the ET-alone arm (HR 0.75; 95% CI 0.60–0.93; $p=0.0047$)
- Natalee
 - Invasive HR+/HER2- breast cancer
 - Node-positive disease (**1-3 positive nodes** or ≥ 4 positive nodes)
 - **OR node-negative disease with at least one of the following high-risk factors:**
 - Tumor size ≥ 5 cm
 - Grade 3
 - Ki-67 $\geq 20\%$
 - **Of note - 43.5% premenopausal**
 - 3-year iDFS rate was 90.4% in the ribociclib arm versus 87.1% in the ET-alone arm (HR 0.748; 95% CI 0.618–0.906; $p=0.0014$)

So SLN information is important for systemic therapy decision making in certain populations
cT3, grade 3, Ki-67 $\geq 20\%$, and1-3 positive nodes??

Implications of Sentinel Node Omission: Systemic

Study/Source (Primary Focus)	Patient Population & SLNB Omission Criteria	Key Findings: Risk of Undertreatment & Morbidity	Missed Eligibility/Potential Undertreatment (due to SLNB omission)	Number Needed to Undergo SLNB to Prevent 1 Invasive Disease-Free Event from CDK4/6 Therapy
National Cancer Database Exploration Wanis et al., Cancer, 2025	cT1N0 hormone receptor- positive breast cancer. Modeled SLNB omission by treating cN0 patients as pN0 for adjuvant decision- making.	Missed CDK4/6i Eligibility (if SLNB omitted): Postmenopausal women: 7.9% of adjuvant decisions impacted by LN pathology. Overall Adjuvant Decision Impact: The absence of lymph node pathology would impact at least one adjuvant decision for 7.9% of postmenopausal women (systemic therapy or radiation therapy). Conclusion: SLNB omission has a small but not negligible influence on adjuvant decisionmaking, with a larger impact on premenopausal women.	Postmenopausal women: Abemaciclib 2.1% would only meet criteria if LN pathology known Ribociclib 7.5% would meet criteria only if LN pathology known.	Postmenopausal women: Not provided
INSEMA (Real World) Tauber et al., Eur J Surg Oncol, 2025	HR+/HER2- early breast cancer, cT1, G1-2, age >50 years, clinically node- negative (cN0), undergoing breast-conserving surgery (BCS)(n=867). Patients met INSEMA eligibility criteria.	Occult Nodal Disease (False-Negative Rate - FNR): 14.3% (all pN+), 10.5% (macrometastases only) CDK4/6i Eligibility (Ribociclib): 73.4% of pN+ patients would qualify for ribociclib treatment. Therapeutic Changes due to Nodal Positivity: 11.6% of patients required relevant therapeutic changes Risk of Secondary Surgery: 18.8% of patients might have required secondary SLNB due to postoperative tumor upgrade (≥pT2 or G3). Conclusion: Axillary staging remains clinically relevant for guiding personalized treatment, especially with new CDK4/6i indications.	Missed eligibility for CDK 4/6i ranges from 2.1-10.5%	Ribociclib Overall 200 (to derive 1 invasive disease- free survival benefit) cT1 6-10 m 333 (to 16-20 11.1 (to
SOUND/INSEMA (Real World) Heidinger et al., The Breast, 2026	HR+/HER2- early breast cancer, ≤cT2, clinically and imaging node-negative (cN0/iN0), undergoing BCS and SLNB (n=309). Patients met SOUND/INSEMA eligibility criteria.	Estimated Increase in Recurrences (due to missed CDK4/6i): 0.2-0.3% across different CDK4/6i and follow-up periods. Conclusion: SLNB omission results in minimal missed CDK4/6i indications and minimal impact on recurrence.	At (o 4. At (o 2.2% (cT1 subgroup) Ribociclib (NATALEE): 7.8% (overall) 8.1% (cT1 subgroup)	Abema 456 (9 Abema 866 (9 Ribocic 348 (9
Choosing Wisely and ASCO Guidelines (Real World) Williams et al., Ann Surg Oncol, 2026	Women aged ≥50, HR+/HER2-, cT1-2N0M0, undergoing upfront surgery with SLNB (n=1,578). Stratified by Choosing Wisely (CW) and ASCO omission criteria.	Occult Nodal Disease (Positive SLNs): 9-10% overall; 2% had pN2-3 disease. Morbidity (Lymphedema): Approximately one patient develops lymphedema for every CDK4/6-eligible patient identified by SLNB; approximately 15 patients develop lymphedema for every one patient expected to derive a 5-year iDFS benefit. Conclusion: SLNB omission excludes few CDK4/6i eligible patients; the marginal oncologic benefit is low compared to the morbidity of axillary surgery.	Overall: Abemaciclib Choosing Wisely: 3.7% missed ASCO: 1.4% missed Ribociclib: Choosing Wisely: 8.2% missed ASCO: 8.1% missed	Abemaciclib Choosing Wisely: 378 ASCO: 1022 Ribociclib Choosing Wisely: 299 ASCO: 299

Implications of Sentinel Node Omission: Radiation

Study/Source (Primary Focus)	Patient Population & SLNB Omission Criteria	Approach		Missed Eligibility/Potential Undertreatment (due to SLNB omission)
National Cancer Database Exploration Wanis et al., Cancer, 2025	cT1N0 hormone receptor-positive breast cancer. Modeled SLNB omission by treating cN0 patients as pN0 for adjuvant decision-making.	Criteria for radiation to regional lymphatics: One or more axillary lymph nodes (LNs) with macrometastases: Age ≤40 years, or ≥3 positive LNs, or Final tumor size >5 cm, or Age <50 years with OncotypeDX > 18, or Age >40 years and meets at least two of the following criteria: - Grade 3 - Lymphovascular invasion - OncotypeDX >25	No axillary lymph node (LN) involvement, isolated tumor cells, or micrometastases only: Meets at least three of the following: - Final tumor size >5 cm - pN1(mic) - Multiple LNs with micrometastases - Age ≤45 years - Grade 3 - Lymphovascular invasion - OncotypeDX >25	Patients not meeting criteria for RNI: 96.4% Patients meeting criteria for RNI regardless of nodal status: 1.5% Potential undertreatment with RNI due to missing SLN biopsy: 2.1%
INSEMA (Real World) Tauber et al., Eur J Surg Oncol, 2025	HR+/HER2- early breast cancer, cT1, G1-2, age >50 years, clinically node-negative (cN0), undergoing breast-conserving surgery (BCS)(n=867). Patients met INSEMA eligibility criteria.	Occult Nodal Disease (False-Negative Rate - FNR): 14.3% (all pN+), 10.5% (macrometastases only) Therapeutic Changes due to Nodal Positivity: 11.6% of patients required relevant therapeutic changes Risk of Secondary Surgery: 18.8% of patients might have required secondary SLNB due to postoperative tumor upgrade (≥pT2 or G3). Conclusion: Axillary staging remains clinically relevant for guiding personalized treatment		Potential undertreatment with RNI due to missing SLN biopsy: 6.7%
Multicenter UK Study Campbell, et al., Ann Surg Oncol, 2026	ER+ HER2- cT1N0 breast cancer in patients ≥ 50 years SOUND/INSEMA criteria	Occult Nodal Disease (False-Negative Rate - FNR): 10.6% Therapeutic Changes due to Nodal Positivity: 7.6% of patients would have had recommended RNI omitted Conclusion: Omission of SLNB requires a multi-disciplinary team approach to ensure appropriate		Potential undertreatment with RNI due to missing SLN biopsy: 7.6%

Missed eligibility for RNI ranges from 2.1% to 7.6%

Omission of Surgical Axillary Staging

**Choosing Wisely
(ABIM/SSO/ASCO):**
**Don't routinely use
sentinel node biopsy in clinically
node negative women ≥70
years of age with early-stage
hormone receptor positive, HER2
negative invasive breast cancer.**

SOUND / INSEMA Trial Implementation			
DF/BCC	MSKCC	Mayo (Jax)	Emory
60 – 69 yo Planned BCS	>= 50 yo (post-menopausal) Planned BCS	>= 50 yo (post-menopausal) Planned BCS	60 – 69 yo Planned BCS
cT1N0 Negative Axillary US	cT1N0 Negative Axillary US	cT1N0 Negative Axillary US	cT1N0 Negative Axillary US
ER>10%/HER2(-) Ductal histology Grade 1 or 2 No LVI	ER>10%/PR≥1% /HER2(-) Any histology Grage 1 or 2	ER>10%/HER2(-) Ductal histology Grade 1 or 2 Ki67<20%	ER>10%/HER2(-) Any histology (except pleomorphic lobular carcinoma) Grade 1 or 2 No LVI

BCS=breast conserving surgery

Surgical Staging of the Axilla in Breast Cancer

"The Take Home Points"

1) Surgical staging of the axilla is needed for:

- Breast cancer in pre-menopausal women
- HER2(+), triple negative, or grade 3 HR(+) breast cancers
- cT2, even if HR(+) and grade 1 or 2
- Patients undergoing mastectomy
- Post-neoadjuvant patients regardless of response

2) Omission of SLN (Emory Approach)

- Post-menopausal woman ≥ 60 with HR(+), cT1N0, grade 1-2, unifocal breast cancer with a negative axillary US undergoing lumpectomy in a multidisciplinary setting
- Patients meeting SSO Choosing Wisely recommendations; patients ≥ 70 years of age with HR+/HER2-negative and pT1, cN0 tumors

3) Monday morning:

- Utilize these guidelines as a backbone to multi-disciplinary discussions regarding breast cancer patient management

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No
(although in well selected cases, Yes)

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