Omission of sentinel lymph node biopsy among women age 50-70: Applying updated ASCO Guidelines to a real-world population

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Background

- Recent practice-changing guidelines from the American Society of Clinical Oncology recommend omission of sentinel lymph node biopsies (SLNB) in patients over the age of 50 with early-stage breast cancer.
- We aimed to evaluate factors associated with a positive SLN (+) and the impact on adjuvant therapy recommendations.

Methods

Study Design
- Retrospective cohort of patients treated at Fred Hutch Cancer Center (2022-2024) who met criteria for omission of SLNB per ASCO 2025 Guidelines

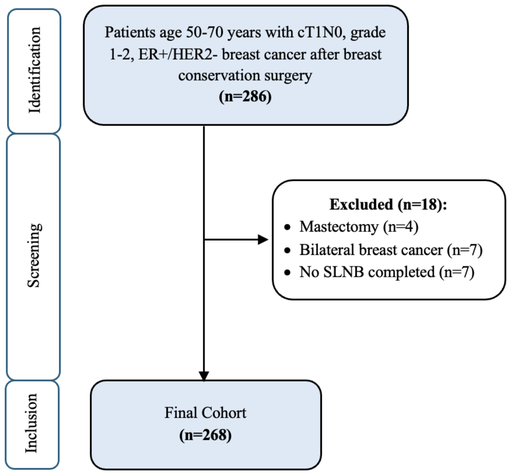
Inclusion criteria
- Patients 50-70 years with early-stage invasive breast cancer (cT1N0, grade1-2, ER+, HER2-)
- Pre-operative axillary ultrasound not required

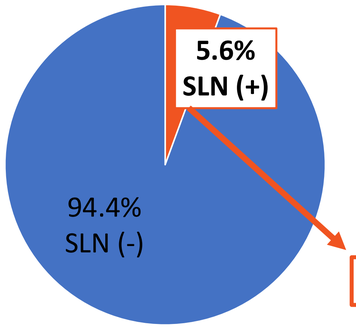
Outcomes
- Primary outcome – frequency of SLN+
- Secondary outcomes – adjuvant treatment and disease-free survival (DFS).

Analysis
- Categorical variables compared via Fischer's exact test and multivariable logistic regression evaluated factors associated with SLN+

Results

STROBE Flowchart





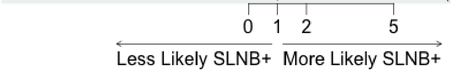
8/15 pN1a, 2 patients with 2 LN+, 0 patients with 3 LN+

Factors Associated with a Positive SLN Biopsy

Characteristic	Overall N = 268	SLN (-) N = 253	SLN (+) N = 15	p-value
Age				0.092
Median (IQR)	63.5 (8.0)	64.0 (8.0)	58.0 (9.0)	
Pathological Tumor Stage				***0.006**
pT1a	40 (100.0%)	40 (100.0%)	0 (0.0%)	
pT1b	95 (100.0%)	93 (97.9%)	2 (2.1%)	
pT1c	119 (100.0%)	109 (91.6%)	10 (8.4%)	
pT2	14 (100.0%)	11 (78.6%)	3 (21.4%)	
Lymphovascular Invasion				0.5
Not Present	257 (100.0%)	243 (94.6%)	14 (5.4%)	
Present	9 (100.0%)	8 (88.9%)	1 (11.1%)	
Unknown/NA	9 (100.0%)	8 (88.9%)	1 (11.1%)	
Tumor Grade				***0.062**
G1	138 (100.0%)	134 (97.1%)	4 (2.9%)	
G2	130 (100.0%)	119 (91.5%)	11 (8.5%)	
Histology Type				>0.9
Ductal	217 (100.0%)	204 (94.0%)	13 (6.0%)	
Lobular	36 (100.0%)	34 (94.4%)	2 (5.6%)	
Mixed/Other Histology	15 (100.0%)	15 (100.0%)	0 (0.0%)	
Oncotype Recurrence Score				***<0.001**
High	18 (100.0%)	14 (77.8%)	4 (22.2%)	
Intermediate	88 (100.0%)	80 (90.9%)	8 (9.1%)	
Low	25 (100.0%)	23 (92.0%)	2 (8.0%)	
Unk/NA	137 (100.0%)	136 (99.3%)	1 (11.1%)	

Multivariate logistic regression of factors associated with SLN+

Characteristic	aOR (95% CI)	p-value
Age (Continuous)	0.90 (0.80 to 1.00)	0.06
Pathologic T Stage		
pT2 vs pT1	6.36 (1.11 to 31.80)	0.03
Oncotype Recurrence Score		
Intermediate vs High	0.24 (0.06 to 1.07)	0.05
Low vs High	0.29 (0.03 to 1.88)	0.21
Unk/NA vs High	0.02 (0.00 to 0.17)	0.001
Tumor Grade		
G2 vs G1	2.29 (0.67 to 9.26)	0.20



Adjuvant Therapy

- 4/5 patients who received chemotherapy would have been indicated based on Oncotype score
- Receipt of endocrine therapy not associated with SLNB+
- 2/275 (0.7%) of patients eligible for CDK4/6 inhibitor based on SLNB+
- 7/275 (2.5%) patients may have been recommended APBI without SLNB result

Conclusions

- SLN+ was 5.6%, significantly lower than SOUND (13.7%) and INSEMA (15.0%)
- Factors associated with SLN+ were consistent with prior studies: younger age, increased size, and higher grade
- SLNB+ result on biopsy did not impact adjuvant treatment recommendations for >97% of patients in a real-world setting

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