

KEY MESSAGES

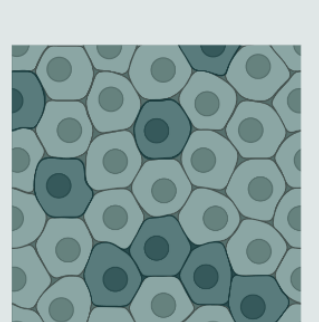
In ER+/HER2- advanced BC, INVASIVE LOBULAR CARCINOMA (ILC), compared with carcinoma of no special type (NST), was significantly and independently associated with a marked tropism for LM involvement as first CNS event.

Among patients with LM involvement, those with ILC experienced particularly poor outcome, with a post-LM survival significantly worse than that of patients with NST-associated LM.

These findings underscore the need for closer clinical vigilance and possibly tailored CNS surveillance strategies in patients with ER+/HER2- advanced BC of ILC histology.

METHODS

**POPULATION**
LARGE MULTICENTER COHORT OF 1710 pts WITH ADVANCED BC

**TUMOR HISTOLOGY**

NST
carcinoma of no special type

ILC
invasive lobular carcinoma

other ST
ST = special type

**CNS EVENTS**

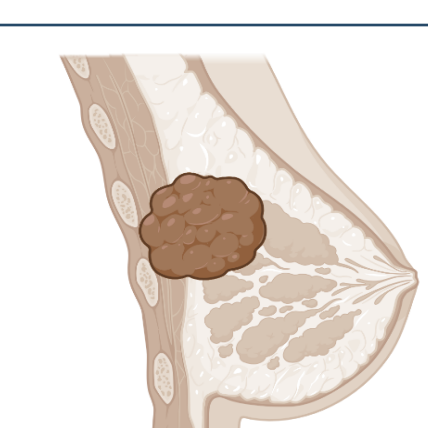
all CNS
parenchymal and/or LM

LM
isolated-LM
no concurrent parenchymal brain mets

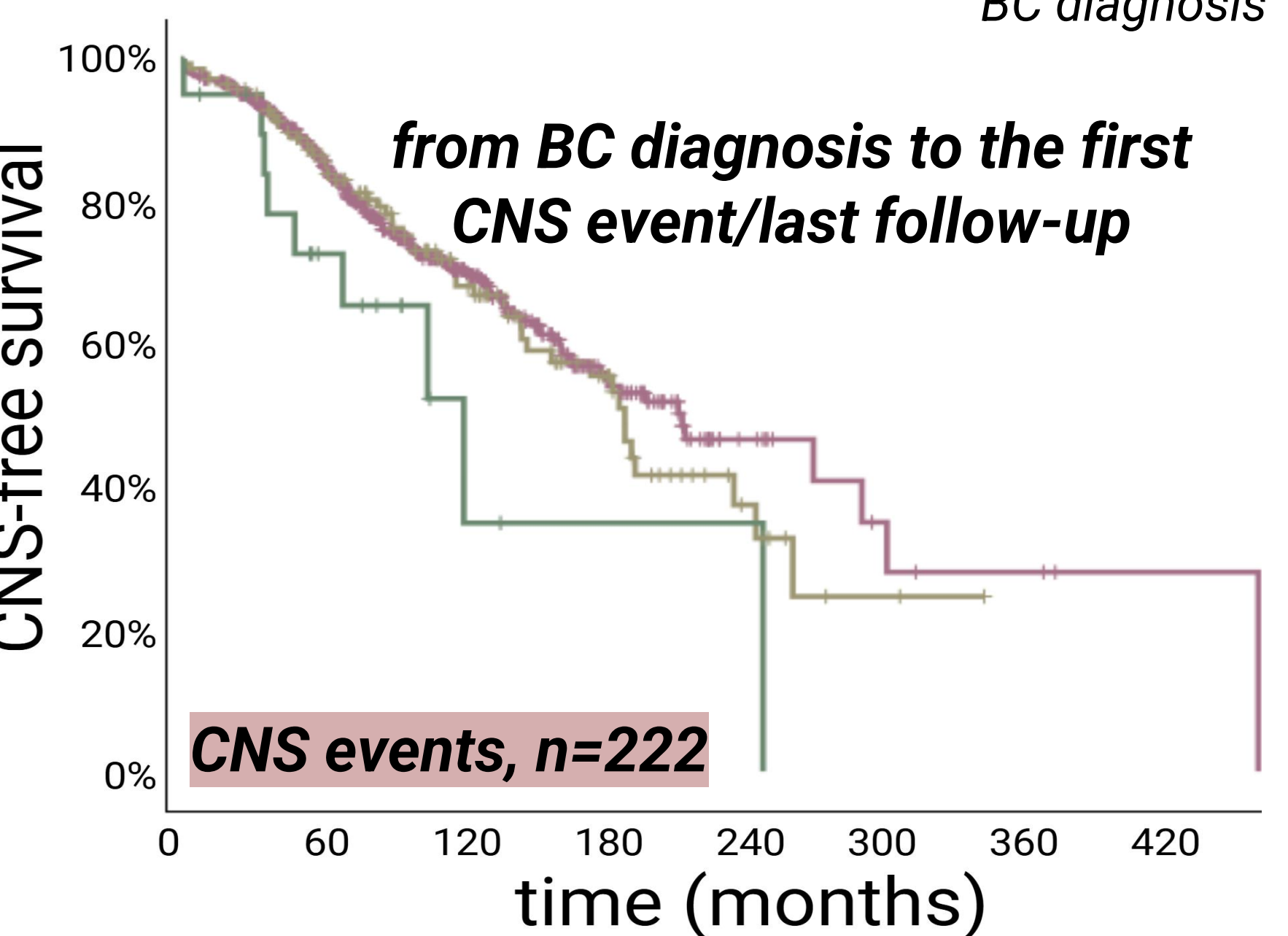
all LM
isolated + co-occurring cases

RESULTS – survival analyses in the ER+/HER2- cohort (n=787)

Median follow-up 16 years



from BC diagnosis to the first CNS event/last follow-up



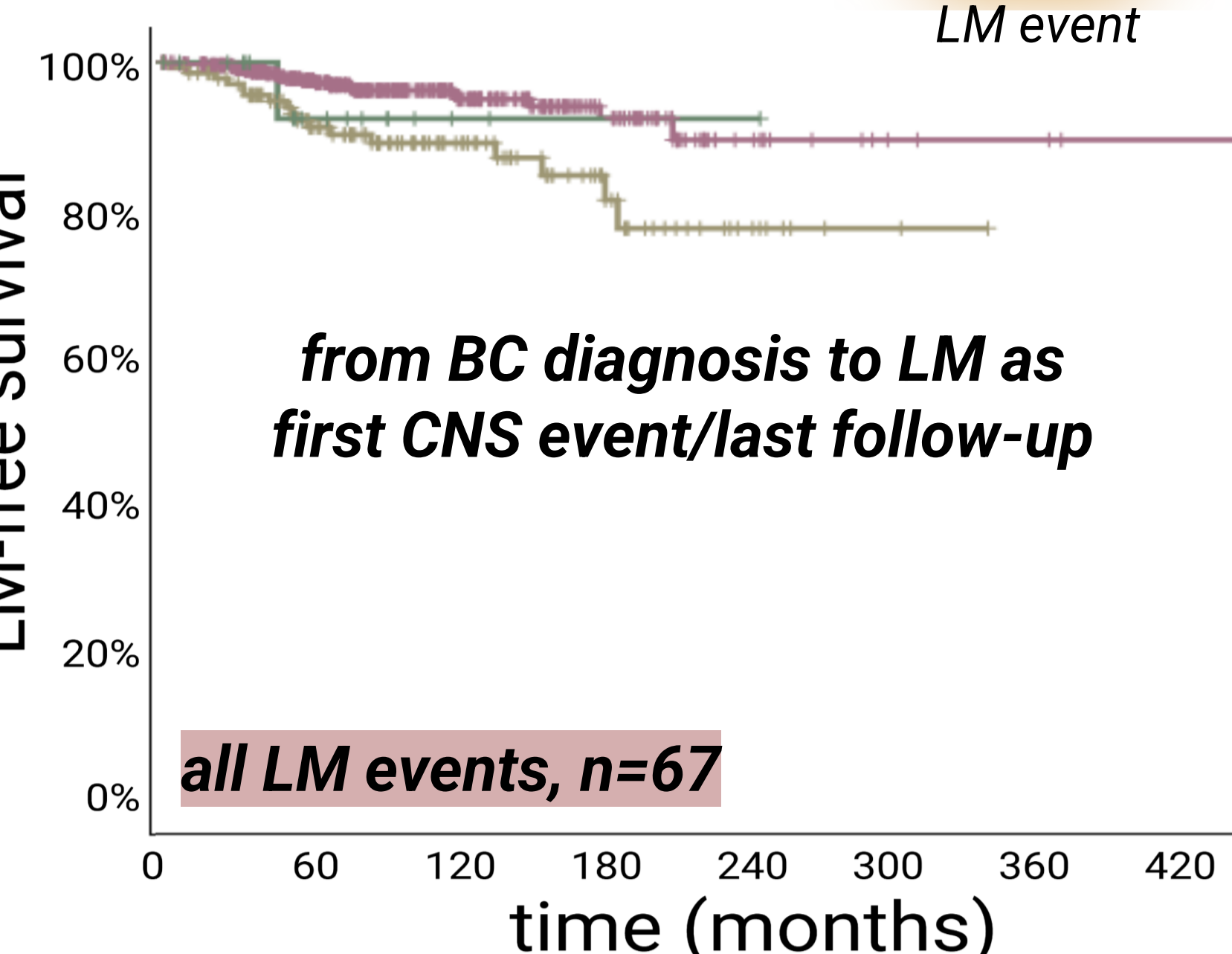
CNS events, n=222

CNS-free survival

LM-free survival

LM event

from BC diagnosis to LM as first CNS event/last follow-up



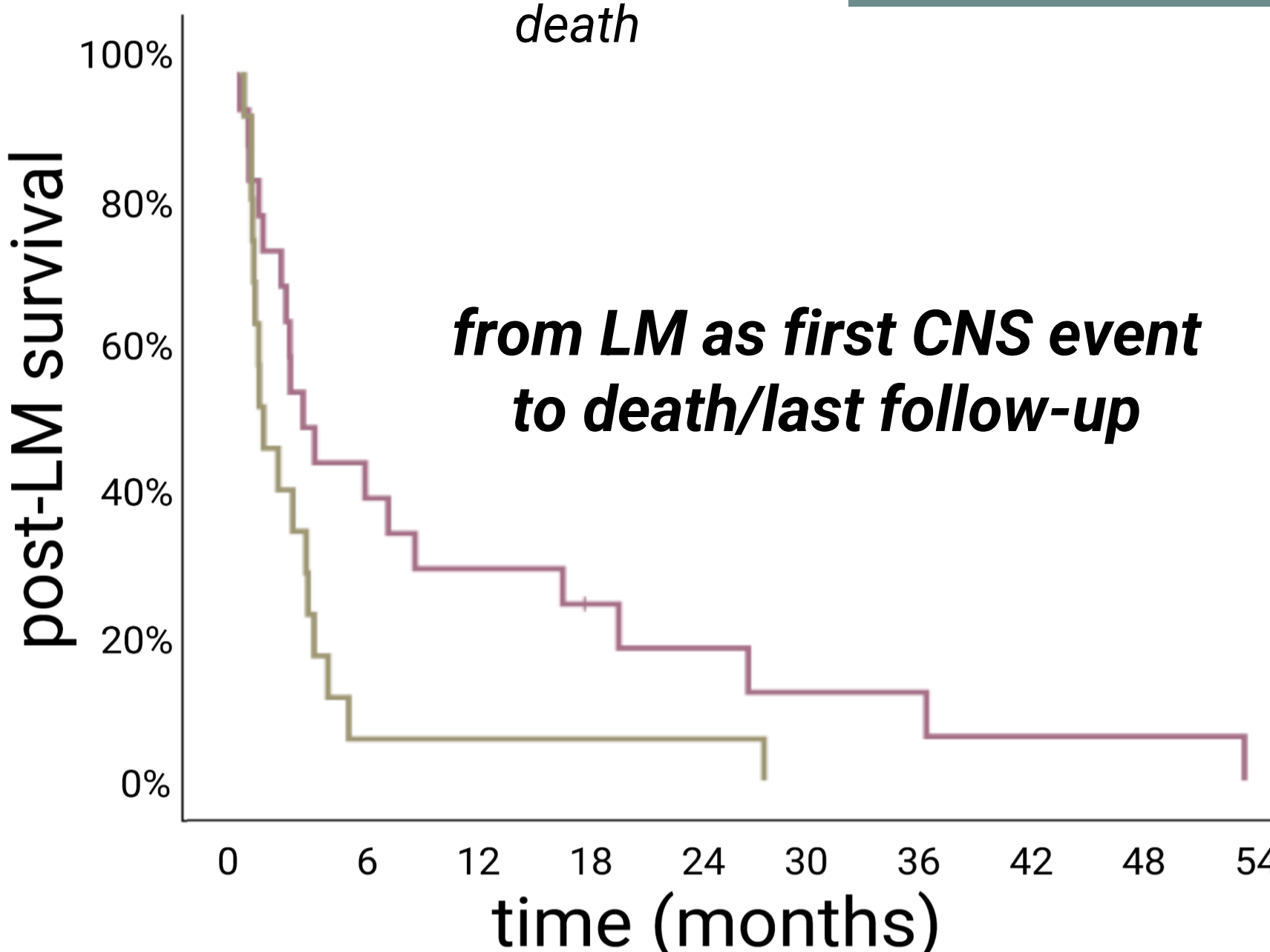
all LM events, n=67

whichever CNS event

post-LM survival

death

from LM as first CNS event to death/last follow-up



NST

ILC

other ST

10-year CNS-free survival	log-rank p-Value
70.0%	0.083
68.1%	
34.9%	

10-year LM-free survival	log-rank p-Value
all LM/isolated LM (n=39)	0.005 /0.003
95.6%/96.0%	
89.0%/89.9%	
92.3%/95.2%	

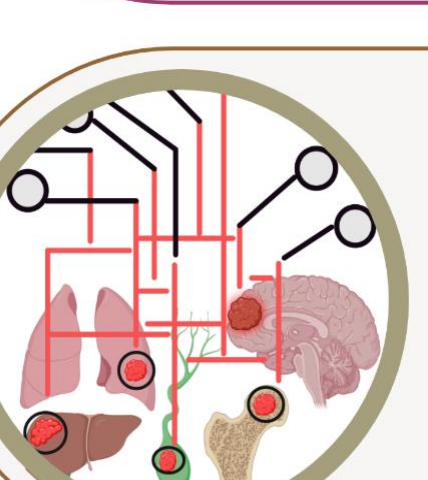
1-year post-LM survival*	log-rank p-Value
30.0%	0.036
5.9%	
-	

BACKGROUND

10-15% all BC

ILC:

- Second most common BC histological subtype
- Most frequent among special type histologies



ILC is known to exhibit distinct metastatic patterns compared to NST



Little is known about ILC specific propensity for CNS and LM involvement, particularly in ER+ (≥10%)/HER2- BC

RESULTS

Distribution of histology & BC phenotype

n=1587 with known tumor histology

NST, n=1270 80%

ILC, n=245 15.5%

other ST, n=72 4.5%

ILC significantly enriched in ER+/HER2- compared to TN and HER2+ (p<0.001)

% calculated among BC subtypes for each histological group

		PHENOTYPE		
		ER+/HER2-	TN (ER<10%)	HER2+
HISTOLOGY	NST	54.6%	19.3%	26.1%
	ILC	77.8%	5.9%	16.3%
	other ST	50.8%	39.0%	10.2%

n = 1359 with matched tumor histology and tumor phenotype available

Multivariate Cox models for LM-free survival*

LM-free survival - all LM		p-value
adj HR (95%CI) for ILC vs NST	5.21 (1.54-17.6)	0.008
LM-free survival - isolated LM		p-value
adj HR (95%CI) for ILC vs NST	5.36 (1.59-18.14)	0.007

adjusted for: age, grade, % ER, % PgR, % ki67 and visceral involvement as first site of relapse

Competing risk analysis*

LM-free survival (all LM)		p-value
HR (95%CI) for ILC vs NST	2.94 (1.56-5.56)	0.036

Fine-Gray competing risk model used to test the association between histology (ILC vs NST) and the risk of LM as first CNS event, accounting for parenchymal-only as a competing event.