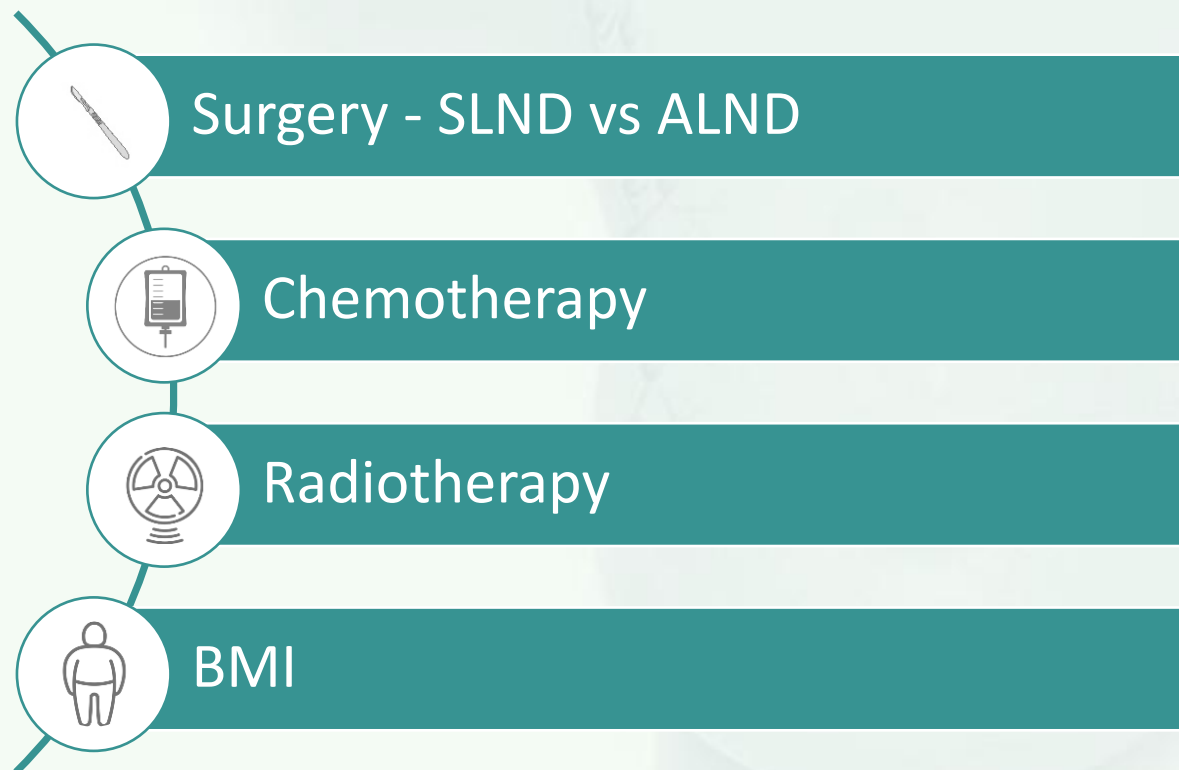
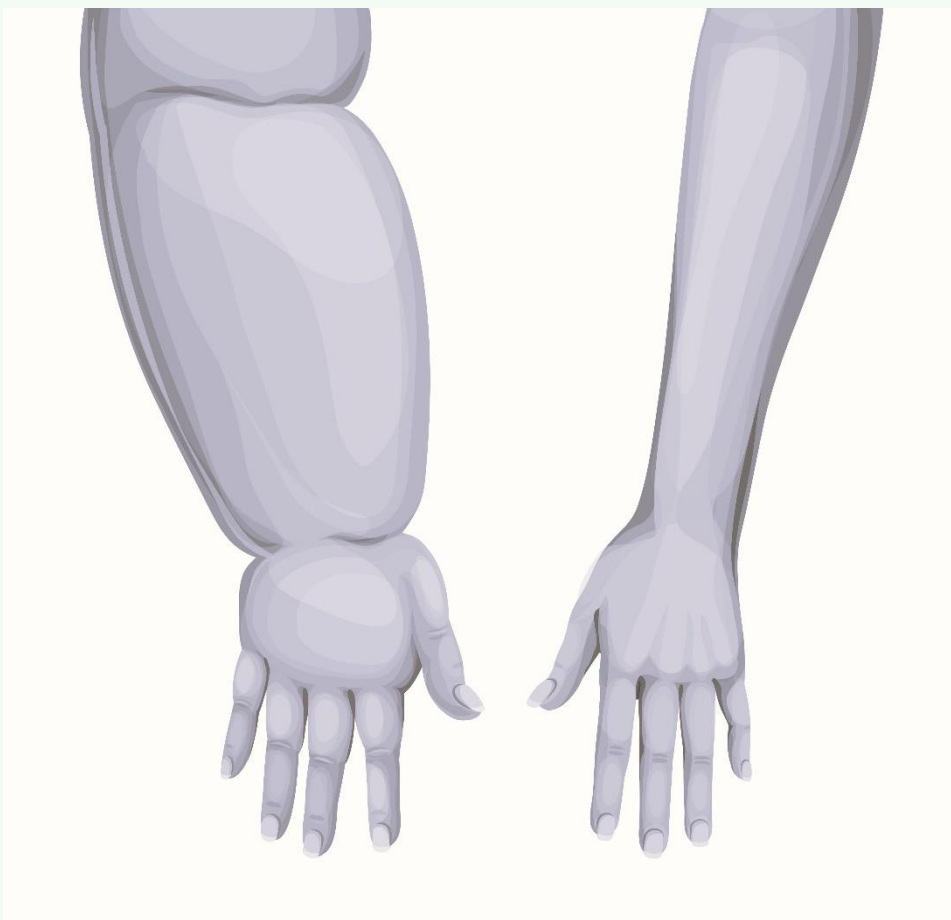




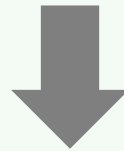
# Residual Axillary Disease after Neoadjuvant Therapy in Patients with **Clinical Node-Negative** but Sentinel Node-Positive Disease

*S. Jensen, T.F. Tvedskov, T. Bechmann, T. Tramm, M.B. Jensen, H.B. Rahr, M.D. Lautrup*

# Breast cancer related lymphedema



Identify patients with  
**limited risk of residual axillary disease**  
after neoadjuvant chemotherapy



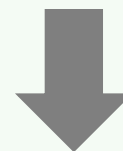
**Minimize** the risk of arm morbidity  
associated with axillary treatment.



Patobank

Inclusion criterias:

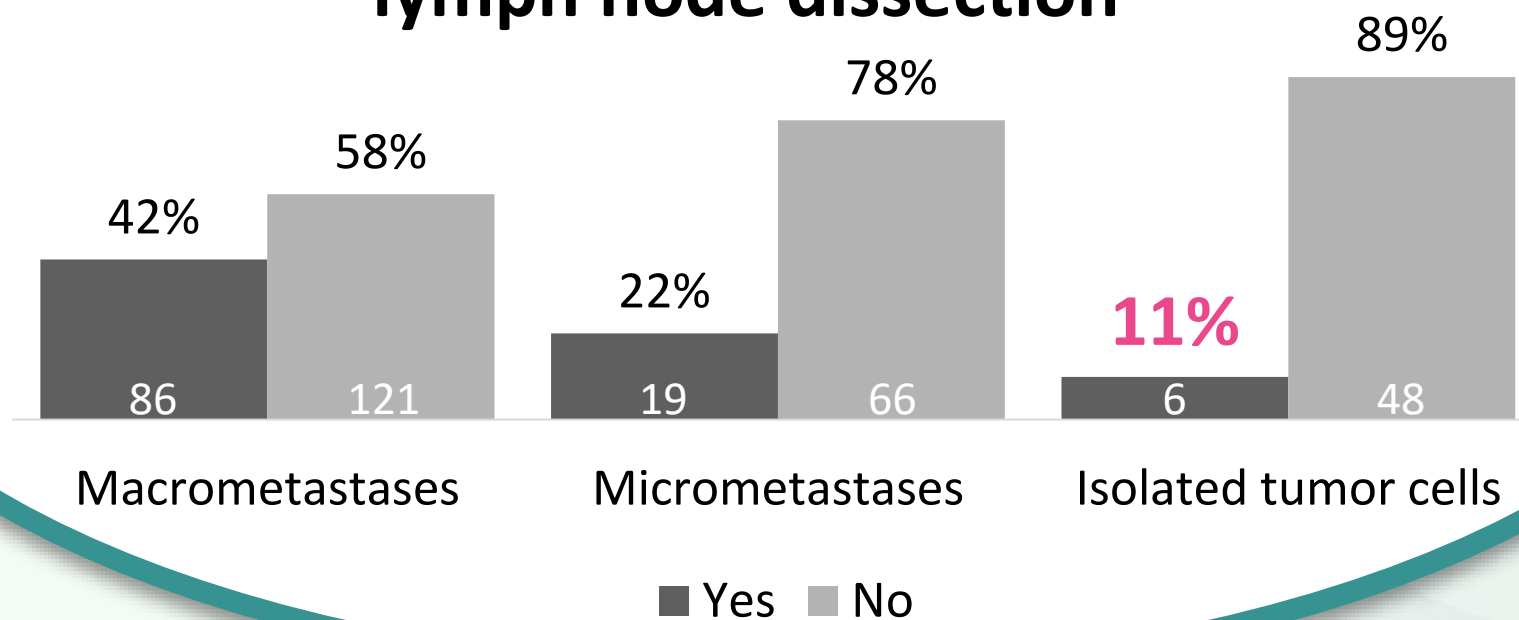
- Primary breast cancer between Oct. 2016 and Nov. 2022.
- **cT1-3N0 and neoadjuvant chemotherapy**
- **ypN+ after** neoadjuvant chemotherapy
- $\geq 4$  cycles of neoadjuvant chemo-/HER2-targeted therapy.
- Sentinel lymph node biopsy and axillary dissection



**346 patients** eligible for analyses

111/346 (32%) had residual metastases at ALND

### Residual metastases at axillary lymph node dissection



## Number of **additional** metastases at ALND

Macrometastases (n=86)

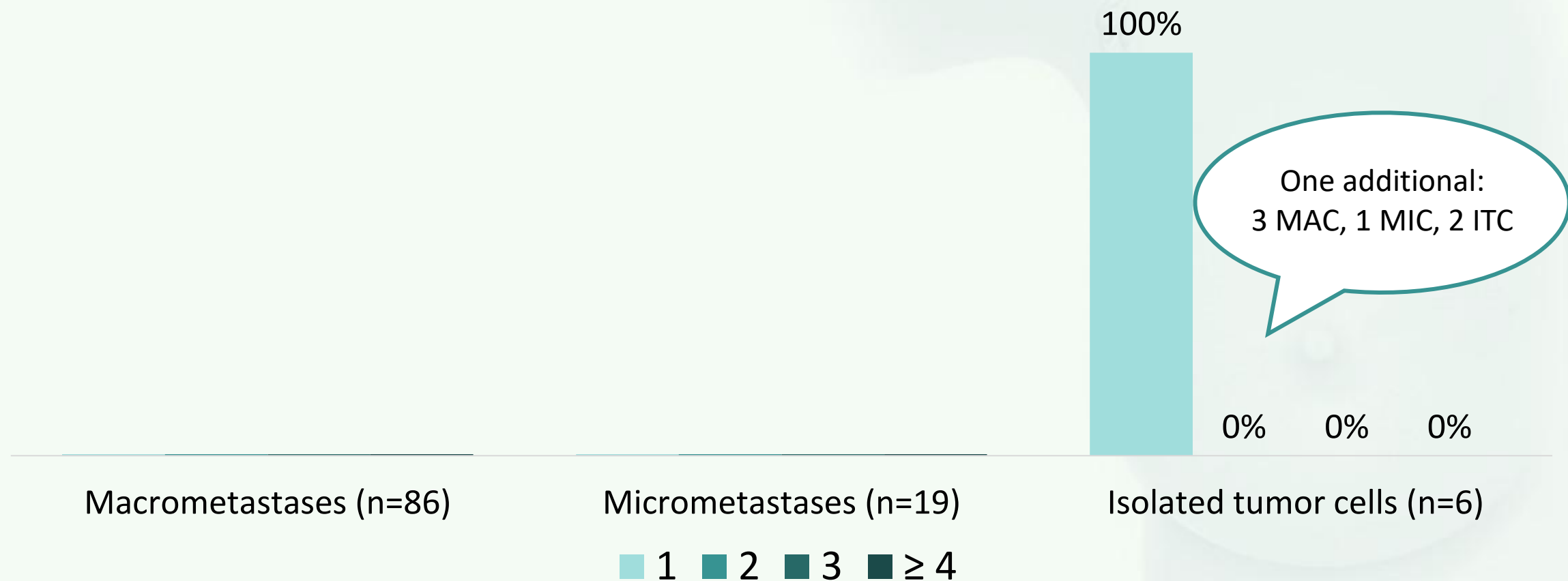
Micrometastases (n=19)

Isolated tumor cells (n=6)

■ 1 ■ 2 ■ 3 ■  $\geq 4$

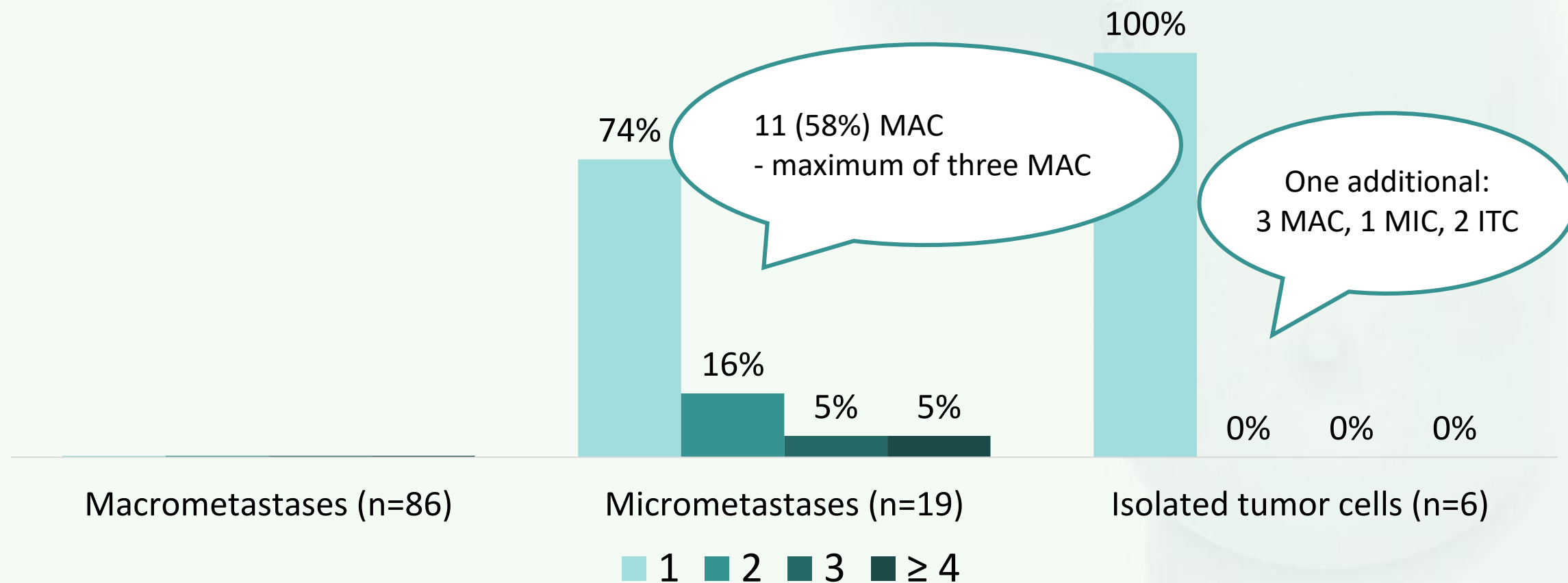
$p < 0.001$

## Number of **additional** metastases at ALND



$p < 0.001$

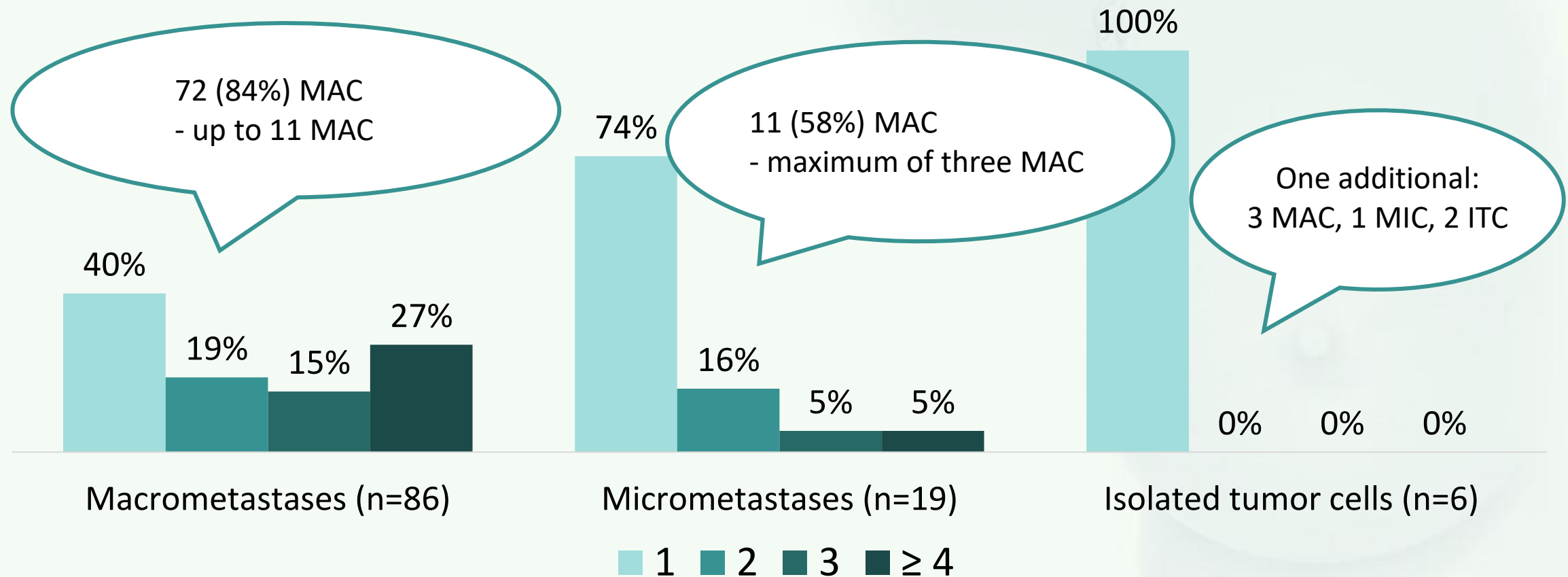
## Number of **additional** metastases at ALND



$p < 0.001$



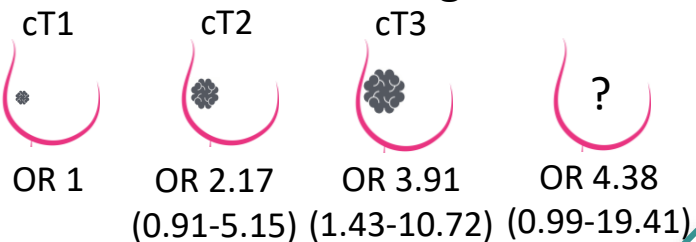
## Number of **additional** metastases at ALND



$p < 0.001$

# Multivariable logistic analyses (backward stepwise elimination)

## Clinical T-stage

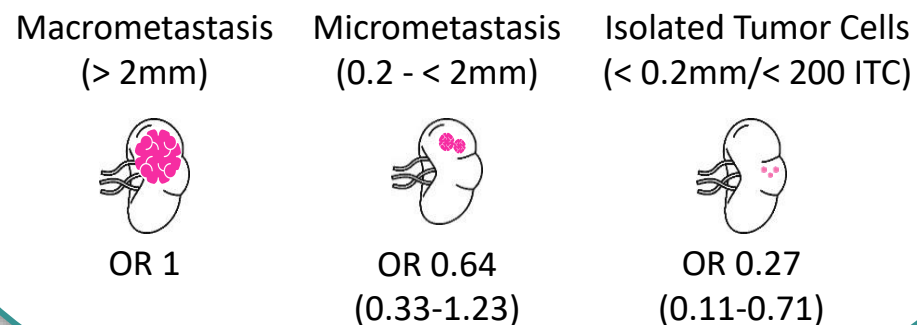


## Extracapsular extension



OR 2.17  
(1.25-3.77)

## Largest metastasis in SLNs



## >2/3 positive SLNs



OR 2.76  
(1.65-4.60)

## Multifocality



OR 1.85  
(1.07-3.22)

# What now?

- Prognostic effect of ALND
- Adjuvant therapy

# Prognostic effect of ALND in ypN+

## So et al.<sup>1</sup>

- 234 patients cT1-2N0 with ypN+  
148 (63%) ALND
- Median follow-up: 5 years
- 3 patients with axillary recurrence  
(2 ALND, 1 nodal radiotherapy)
- 29 distant recurrence -  
10 (35%) SLNB vs 19 (65%) ALND

## Montagne et al.<sup>2</sup>

- 583 patients cT1-4N0-3 with yN0i+  
182 (31%) ALND
- Median follow-up: 3.2 years
- No significant difference in axillary recurrence, locoregional or distant recurrence

1: So A, et al. Significance of Residual Nodal Disease in Clinically Node-Negative Breast Cancer After Neoadjuvant Chemotherapy. Ann Surg Oncol. 2024

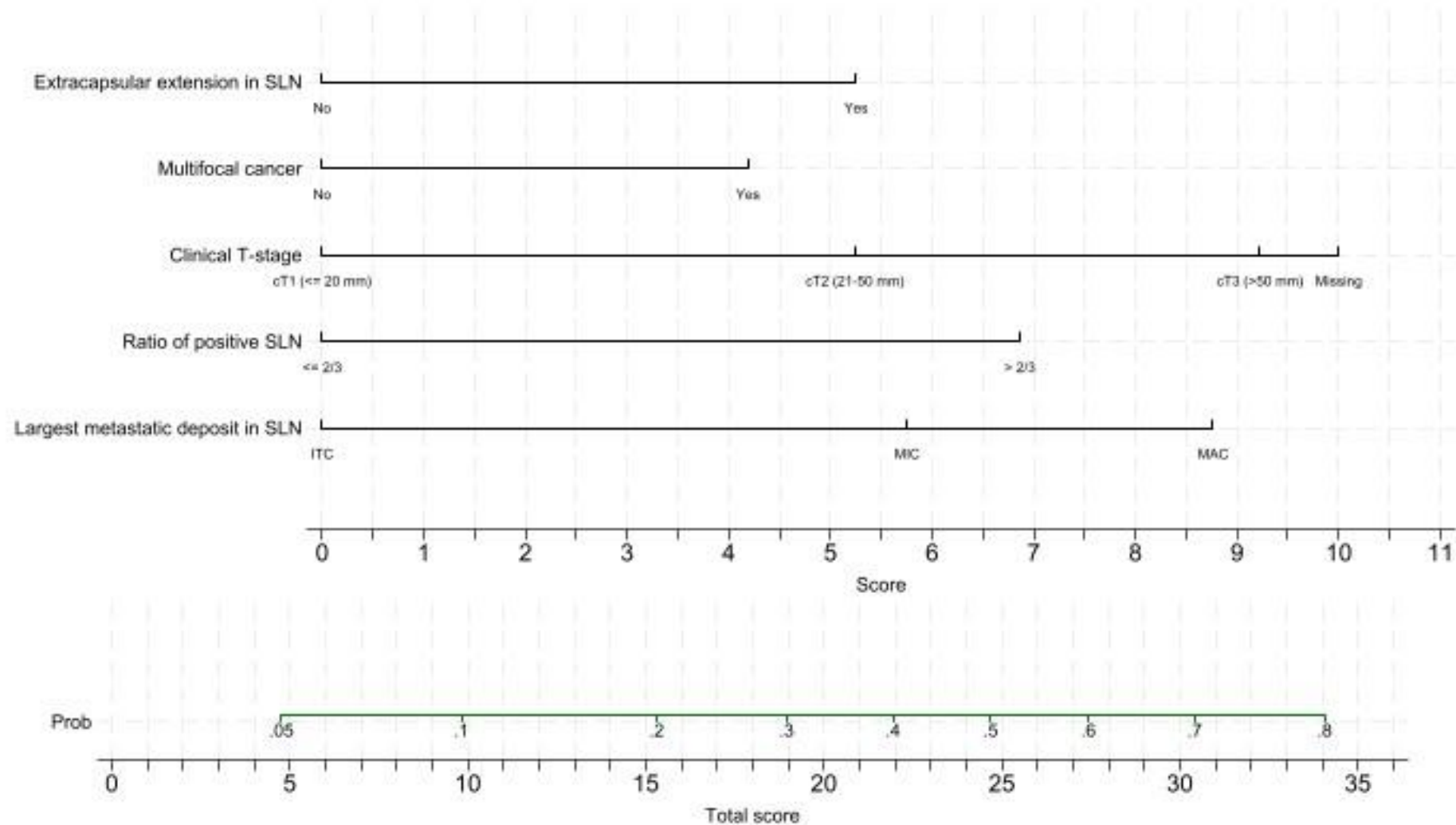
2: Montagna G, et al. Nodal Burden and Oncologic Outcomes in Patients With Residual Isolated Tumor Cells After Neoadjuvant Chemotherapy (ypN0i+): The OPBC-05/ICARO Study. Journal of Clinical Oncology. 2024

# How much do we trust the adjuvant therapy - even after neoadjuvant therapy?



Patients with **cN0 breast cancer and ITC** in the  
SLNs after neoadjuvant chemotherapy have a  
**low risk of residual axillary disease**

## Supplemental: Predicted Probability of Residual Axillary Disease



# Increased **false negative rate** in SLND after neoadjuvant therapy?

False negative rate:

- 7-10% - acceptable and comparable with primary surgery<sup>4,5</sup>

**FNR  $\neq$  impaired outcome<sup>6</sup>**

4: van Deurzen CHM, et al. Accuracy of sentinel node biopsy after neoadjuvant chemotherapy in breast cancer patients: a systematic review. Eur J Cancer. 2009

5: Shirzadi A, et al. Assessment of sentinel lymph node biopsy after neoadjuvant chemotherapy for breast cancer in two subgroups: Initially node negative and node positive converted to node negative - A systemic review and meta-analysis. 2019

6: Kahler-Ribeiro-Fontana S, et al. Long-term standard sentinel node biopsy after neoadjuvant treatment in breast cancer: a single institution ten-year follow-up. Eur J Surg Oncol. 2021