

# **Surgically Removed Lymph Nodes for Breast Tumours: Histopathology Reporting Guide**

# LN dataset (+N category)



## Surgically Removed Lymph Nodes for Breast Tumours Histopathology Reporting Guide



Family/Last name  Date of birth

Given name(s)

Patient identifiers  Date of request  Accession/Laboratory number

Elements in **black text** are CORE. Elements in **grey text** are NON-CORE.  
 indicates multi-select values  indicates single select values

SCOPE OF THIS DATASET

### CLINICAL INFORMATION<sup>a</sup> (select all that apply) (Note 1)

Information not provided

**Clinical and/or imaging findings that prompted current lymph node evaluation**

Information not provided

Ipsilateral breast carcinoma

Enlarged/palpable axillary lymph node(s) in a patient with prior history of breast carcinoma

Axillary lymph node(s) suspicious on imaging

Imaging findings, specify if available

Prior biopsy of the suspicious lymph node(s)

Prior fine needle aspiration (FNA)

Prior core needle biopsy (CNB)

Prior CNB/FNA diagnosis

Positive for carcinoma

Negative for carcinoma

Atypical cells present/suspicious for malignancy

Non-diagnostic specimen

Other relevant clinical/imaging findings, specify

### Prior neoadjuvant treatment

Information not provided

No

Yes

Neoadjuvant chemotherapy

Neoadjuvant hormonal therapy

### Other clinical information, specify

<sup>a</sup> This is a core element if ONLY a sentinel lymph node and/or axillary lymph nodes are obtained. If the lymph nodes are obtained together with a breast specimen this element will be non-core.

### OPERATIVE PROCEDURE (select all that apply) (Note 2)

Sentinel lymph node biopsy

Non-sentinel lymph node biopsy

Axillary lymph node dissection

Level I

Levels I and II

Levels I to III

Axillary lymph node level III, excision

Other regional lymph node(s) biopsy

Internal mammary

Infraclavicular (subclavicular)

Supraclavicular

Other, specify

### SPECIMEN LATERALITY (Note 3)

Left

Right

Not specified

### NUMBER OF LYMPH NODES EXAMINED (Note 4)

(These values may be reported in the corresponding cells in Table 1A)

Total number of sentinel lymph nodes examined<sup>b</sup>

Total number of non-sentinel lymph nodes examined<sup>c</sup>

Total number of lymph nodes examined

<sup>b</sup> This is a core element ONLY if sentinel lymph nodes are submitted by the surgeon.

<sup>c</sup> Non-sentinel lymph nodes include:

- any lymph node submitted by the surgeon as "non-sentinel lymph node" at the time of sentinel lymph node biopsy, and
- axillary lymph nodes from an axillary lymph node dissection.

### NUMBER OF LYMPH NODES WITH METASTATIC CARCINOMA<sup>d</sup> (Note 5)

(This value may be reported in the corresponding cell in Table 1A)

<sup>d</sup> This value includes the number of lymph nodes with macrometastatic (>2 mm) and micrometastatic carcinoma (>0.2 mm to 2 mm and/or ≥200 cells).

### NUMBER OF LYMPH NODES WITH MACROMETASTASES<sup>e</sup>

(These values may be reported in the corresponding cells in Table 1B)

Sentinel lymph nodes

Non-sentinel lymph nodes

Total lymph nodes

<sup>e</sup> A macrometastasis is any tumour deposit spanning >2 mm microscopically.

### NUMBER OF LYMPH NODES WITH MICROMETASTASES<sup>f</sup>

(These values may be reported in the corresponding cells in Table 1B)

Sentinel lymph nodes

Non-sentinel lymph nodes

Total lymph nodes

<sup>f</sup> A micrometastasis is any tumour deposit spanning >0.2 mm to 2 mm microscopically and/or consisting of more than 200 cells in one lymph node section but not exceeding 2 mm in extent.

### LYMPH NODES CONTAIN ONLY ISOLATED TUMOUR CELLS (ITCs)<sup>g</sup>

(These responses may be reported in the corresponding cells in Tables 1A and 1B)

No

Yes

**Number of lymph nodes with ITCs when ONLY ITC involvement is present<sup>h</sup>**

Sentinel lymph nodes

Non-sentinel lymph nodes

Total lymph nodes

<sup>g</sup> ≤0.2 mm and ≤200 cells.

<sup>h</sup> This is a core element ONLY if macro- or micrometastatic carcinoma is NOT present in any lymph nodes. If metastatic (macro- or micrometastatic) carcinoma is identified in lymph nodes the number of lymph nodes with ONLY ITCs is a non-core element.

### SIZE OF LARGEST METASTASIS<sup>i</sup> (Note 8)

(This value may be reported in the corresponding cell in Table 1A)

Not assessable<sup>j</sup>

Size of largest metastatic deposit<sup>k</sup>  mm

At least<sup>l</sup>  mm

<sup>i</sup> Required only if macro- or micrometastatic carcinoma is present.

<sup>j</sup> Only to be used for cases investigated by one-step nucleic acid amplification.

<sup>k</sup> Denotes the largest span of metastatic carcinoma and is used to further stage pN involvement (micrometastatic carcinoma versus macrometastatic carcinoma).

<sup>l</sup> Refers to the minimum value of the size of the metastasis when the metastasis appears to be larger, but a more precise measurement is not possible (e.g. the lymph node is fragmented, the largest size of the metastasis is in the third dimension).

### EXTRANODAL EXTENSION<sup>m</sup> (Note 9)

(This response may be reported in the corresponding cell in Table 1A)

Not identified

Present

Cannot be determined

<sup>m</sup> This is a core element only if macro- or micrometastases are present.

### STATUS POST-NEOADJUVANT TREATMENT (Note 10)

(This response may be reported in the corresponding cell in Table 1A)

Information not provided

No neoadjuvant treatment given

Residual disease present

Residual disease not identified

### TREATMENT EFFECT<sup>n</sup> (Note 11)

Not identified

Present

Cannot be determined

<sup>n</sup> Combined reporting of the presence of residual metastatic carcinoma and/or treatment-induced fibrosis as summarised in Table 1C is strongly recommended.

### ANCILLARY STUDIES (Note 12)

Not performed

Performed

Immunohistochemistry,<sup>o</sup> specify methodology and results

One-step nucleic acid amplification,<sup>o</sup> specify results

Other, specify test(s), methodology and result(s)

<sup>o</sup> This response may be reported in the corresponding cell in Table 1B.

# LN dataset

Table 1A: Regional lymph node status – core elements.

	Regional lymph node status							
Type of lymph nodes	Number of lymph nodes	Status post-neoadjuvant treatment <sup>c</sup>	Total lymph nodes with metastatic carcinoma (size >0.2 mm)	Size of largest metastasis (mm) <sup>d</sup>	Only ITCs present (Yes/No)	Total lymph nodes with ITCs when ONLY ITC involvement is present <sup>e,f</sup>	pN status (UICC TNM 8) <sup>g</sup>	Extranodal extension (ENE)
SLNs <sup>a</sup>								
Non-SLNs <sup>a</sup>								
Total lymph nodes <sup>a</sup>								

# New Items not in the current RCPATH Dataset

- Number of lymph nodes with ITCs when ONLY ITC involvement is present (Core)
  - Adjuvant setting – under UK guidelines these are regarded as positive post neoadjuvant chemotherapy
- Size of the largest metastasis (mm)
  - Estimated minimum measurement in cases where it is not possible to be precise e.g. multiple sections, fragmented node
- Presence of extranodal extension – not identified/ present
  - Measurement of extent of ENE not required
- Specific statement re OSNA
  - Not recommended if there is gross metastatic disease
  - Not defined in 8<sup>th</sup> edition UICC TNM – suggest use pN1mi(mol+) or pN1(mol+)

**INVASIVE CARCINOMA OF  
THE BREAST  
IN THE SETTING OF  
NEOADJUVANT THERAPY**

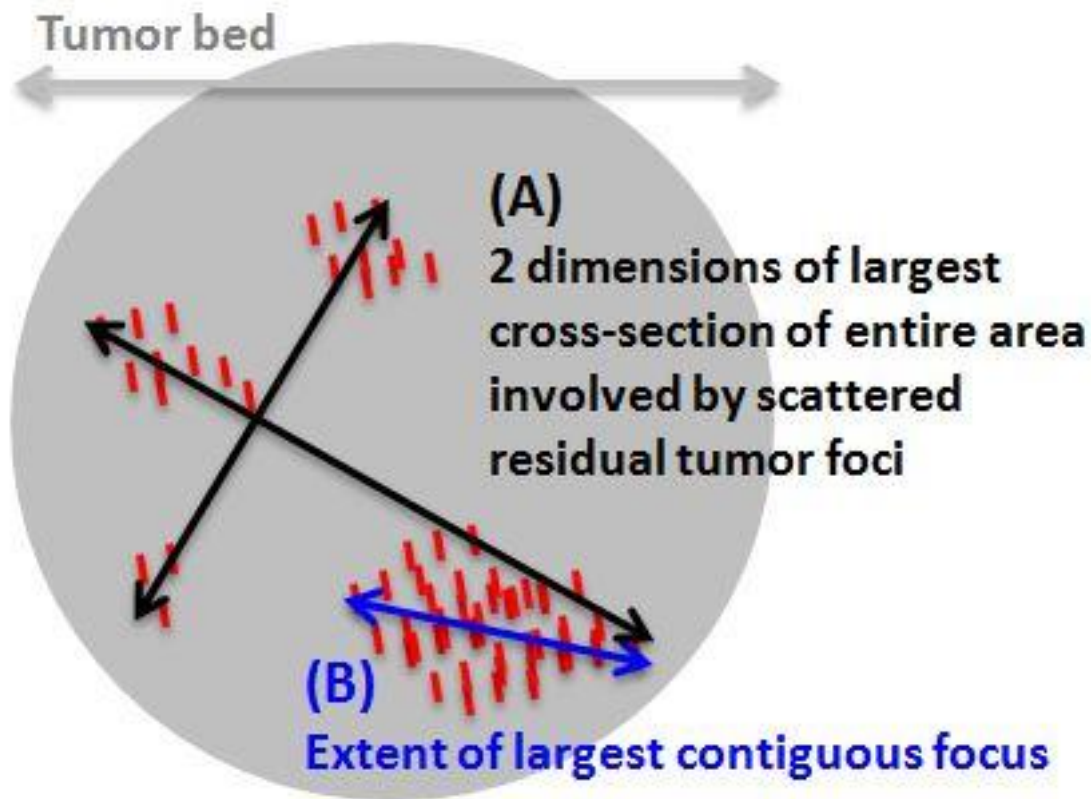
# Neoadjuvant dataset

- Clinical information
  - Treatment related information – type of therapy
  - Placement of a marker
  - Relevant pre treatment information on primary tumour and axillary biopsy (if relevant)

# Neoadjuvant dataset

- Residual invasive carcinoma – present/ absent
  - If absent – is tumour site identified (core) – yes/no/uncertain
  - Options – marker clip, histological changes to indicate tumour bed, DCIS, calcification
- Tumour dimensions – both
  - Largest contiguous invasive focus (as per AJCC/ UICC TNM)
  - Greatest 2 dimensions containing residual invasive carcinoma representing a single residual tumour bed including areas of intervening fibrosis as per RCB
- Residual Cancer Cellularity – reported as percentage of the area with residual invasive cancer that is estimated to contain cancer cells
- Discussion about confusion in terminology as ‘tumour bed’ used for macroscopic area representing tumour site, microscopic changes indicating previous tumour with response, and area with residual invasive tumour

# Tumour size

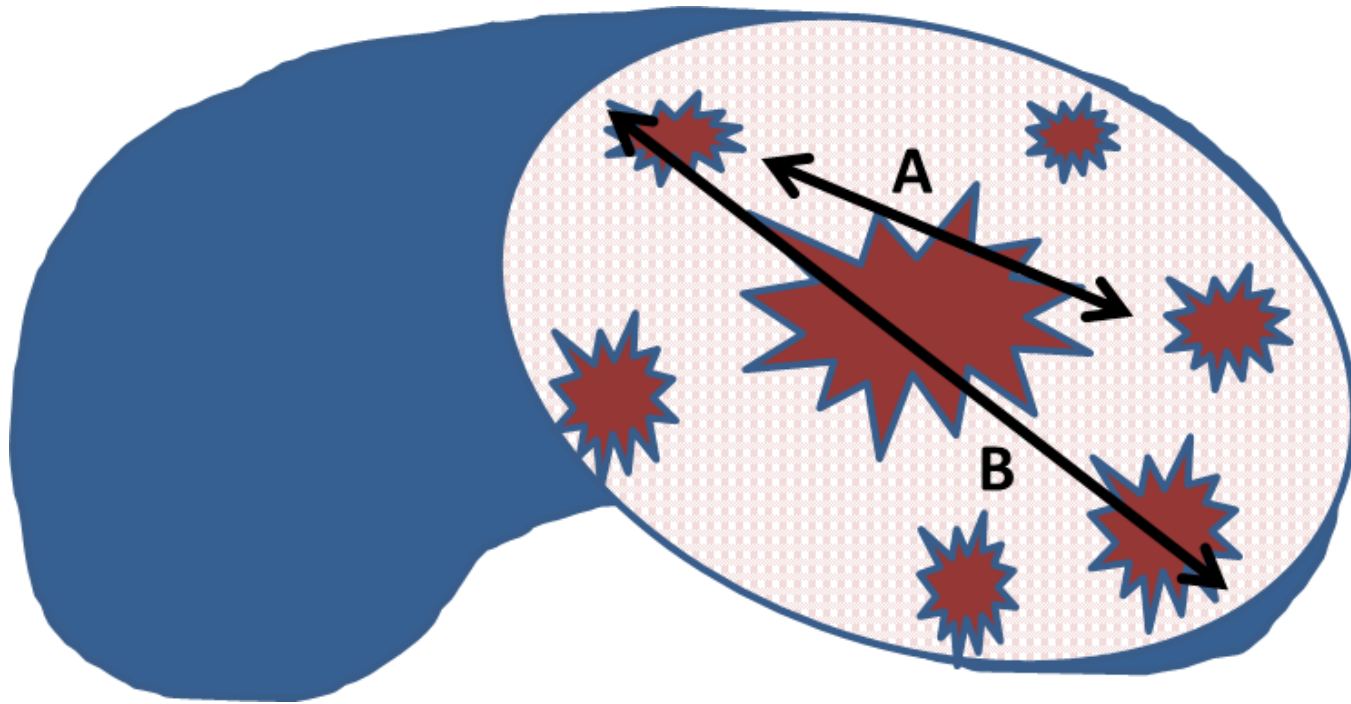




# Neoadjuvant dataset

- Lymph nodes – this is where it gets really messy due the difference in AJCC/UICC, RCB and RCPATH guidance!!
- Number of lymph nodes with metastatic carcinoma
  - Macromets/ micromets = TNM
  - Macromets/ micromets/ ITCs = RCB/ RCPATH
- Size of largest metastasis
  - size of largest contiguous cell cluster (excluding fibrosis) - AJCC/UICC TNM
  - Largest metastatic focus including fibrosis – RCB/ RCPATH
  - Not assessable – OSNA
- Presence of treatment effect
  - Nodes containing residual metastatic carcinoma
  - Nodes with treatment effect but no residual metastatic carcinoma cells

# Metastasis size



# Neoadjuvant dataset

- Quantification of residual disease/ RCB
  - RCB elements (core)
  - RCB score (non-core)
  - RCB class (non-core)
- Pathological complete response
  - ypT0/is yp/cN0 or ypT0 yp/cN0 (negative pre treatment SLN = cN0)
  - Residual DCIS only
  - Residual invasive cancer = not pCR
  - LVI only = not pCR
  - ypN0(i+) = not pCR