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Surgically Removed Lymph Nodes for Breast Tumours Histopathology Reporting Guide

ICCR

Family/Last name

Given name(s)

Date of birth DD – MM – YYYY

Patient identifiers

Date of request DD – MM – YYYY

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[a] (select all that apply)

◯ 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 (*a separate dataset is to be used in the setting of neoadjuvant therapy*)
  ☐ Neoadjuvant chemotherapy
  ☐ Neoadjuvant hormonal therapy

Other clinical information, *specify*

[a] *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)

☐ 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

◯ Left
◯ Right
◯ Not specified

NUMBER OF LYMPH NODES EXAMINED

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

Total number of sentinel lymph nodes examined[b]

Total number of non-sentinel lymph nodes examined[c]

Total number of lymph nodes examined

[b] *This is a core element only if sentinel lymph nodes are submitted by the surgeon.*

[c] *Non-sentinel lymph nodes include:*
1. *any lymph node submitted by the surgeon as 'non-sentinel lymph node' at the time of sentinel lymph node biopsy; and*
2. *axillary lymph nodes from an axillary lymph node dissection.*

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NUMBER OF LYMPH NODES WITH METASTATIC CARCINOMA[d]

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

[ ]

[d] *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[e]

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

Sentinel lymph nodes	
Non-sentinel lymph nodes	
Total lymph nodes	

[e] *A macrometastasis is any tumour deposit spanning >2 mm microscopically.*

NUMBER OF LYMPH NODES WITH MICROMETASTASES[f]

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

Sentinel lymph nodes	
Non-sentinel lymph nodes	
Total lymph nodes	

[f] *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)[g]

(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[h]

Sentinel lymph nodes	
Non-sentinel lymph nodes	
Total lymph nodes	

[g] *≤0.2 mm and ≤200 cells.*

[h] *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[i]

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

- ◯ Not assessable[j]
- ◯ Size of largest metastatic deposit[k] [ ] mm
- ◯ At least[l] [ ] mm

[i] *Required only if macro- or micrometastatic carcinoma is present.*

[j] *Only to be used for cases investigated by one-step nucleic acid amplification.*

[k] *Denotes the largest span of metastatic carcinoma and is used to further stage pN involvement (micrometastatic carcinoma versus macrometastatic carcinoma).*

[l] *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[m]

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

- ◯ Not identified
- ◯ Present
- ◯ Cannot be determined

[m] *This is a core element only if macro- or micrometastases are present.*

TREATMENT EFFECT[n]

- ◯ Not identified
- ◯ Present
- ◯ Cannot be determined

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

ANCILLARY STUDIES

- ◯ Not performed
- ◯ Performed (select all that apply)
  - ☐ Immunohistochemistry[o], *specify test(s) and result(s)*
  - ☐ One-step nucleic acid amplification[o], *record results*
  - ☐ Other, *specify test(s) and result(s)*

Representative blocks for ancillary studies, *specify those blocks best representing tumour and/or normal tissue for further study*

[o] *This response may be reported in the corresponding cell in Table 1B.*

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REGIONAL LYMPH NODE CATEGORISATION (UICC TNM 8th edition)[p]

TNM Descriptors (only if applicable) (select all that apply)

- ☐ r - recurrent
- ☐ y - post-therapy
- ☐ p - histopathologic examination was performed; and the primary tumour was removed – the latter being a requisite for "p" classification
- ☐ c - based on clinical or imaging studies, no histopathologic examination was performed – or lymph node assessment was done without the primary breast tumour being removed

Regional lymph nodes (pN)

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

- ◯ NX Regional lymph nodes cannot be assessed (e.g., previously removed, or not removed for pathological study)
- ◯ N0 No regional lymph node metastasis
- ◯ N1 Micrometastasis; or metastasis in 1 to 3 axillary ipsilateral lymph nodes; and/or in internal mammary nodes with metastases detected by sentinel lymph node biopsy but not clinically detected[q]
  - ◯ N1mi Micrometastasis (larger than 0.2 mm and/or more than 200 cells, but none larger than 2.0 mm)
  - ◯ N1mi(mol+) Using molecular methods[r]
  - ◯ N1a Metastasis in 1–3 axillary lymph node(s), including at least one larger than 2 mm in greatest dimension
  - ◯ N1a(mol+) Using molecular methods[r]
  - ◯ N1b Metastasis in internal mammary lymph nodes not clinically detected[q]
  - ◯ N1c Metastasis in 1–3 axillary lymph nodes and internal mammary lymph nodes not clinically detected[q]
- ◯ N2 Metastasis in 4–9 ipsilateral axillary lymph nodes, or in clinically detected[q] ipsilateral internal mammary lymph node(s) in the absence of axillary lymph node metastasis
  - ◯ N2a Metastasis in 4–9 axillary lymph nodes, including at least one that is larger than 2 mm
  - ◯ N2b Metastasis in clinically detected internal mammary lymph node(s), in the absence of axillary lymph node metastasis
- ◯ N3 Metastasis as described below:[s]
  - ◯ N3a Metastasis in 10 or more ipsilateral axillary lymph nodes (at least one larger than 2 mm) or metastasis in infraclavicular lymph nodes/level III lymph nodes
  - ◯ N3b Metastasis in clinically detected[q] internal ipsilateral mammary lymph node(s) in the presence of positive axillary lymph node(s); or metastasis in more than 3 axillary lymph nodes and in internal mammary lymph nodes with microscopic or macroscopic metastasis detected by sentinel lymph node biopsy but not clinically detected
  - ◯ N3c Metastasis in ipsilateral supraclavicular lymph node(s)

[p] *Reproduced with permission. Source: UICC TNM Classification of Malignant Tumours, 8th Edition, eds by James D. Brierley, Mary K. Gospodarowicz, Christian Wittekind. 2016, Publisher Wiley (incorporating any errata published up until 6th October 2020).*

[q] *Clinically detected is defined as detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed pathological macrometastasis based on FNA biopsy with cytological examination. Confirmation of clinically detected metastatic disease by FNA without excision biopsy is designated with a (f) suffix, e.g., cN3a(f). Not clinically detected is defined as not detected by imaging studies (excluding lymphoscintigraphy) or not detected by clinical examination.*

[r] *Not included in UICC TNM 8th Edition.*

[s] *Definition of N3 not included in UICC TNM 8th Edition.*

The following tables are provided for reference, and may be used as needed.

Core elements are summarised in Table 1A. Although all core elements need to be reported for accurate staging of lymph node status, reporting in table format is not required, and the same information may be provided as indicated in the reporting guide. The same applies to the non-core elements summarised in Tables 1B and 1C.

Table 1A: Regional lymph node status – core elements

Type of lymph nodes	Number of lymph nodes	Status post-neoadjuvant treatment[c]	Total lymph nodes with metastatic carcinoma (size >0.2 mm)	Size of largest metastasis (mm)[d]	Only ITCs present (Yes/No)	Total lymph nodes with ITCs when ONLY ITC involvement is present[e,f]	pN status[g] (UICC TNM8)	Extranodal extension (ENE)
SLNs[a]								
Non-SLNs[a]								
Total lymph nodes[b]								

SLNs: sentinel lymph nodes
ITCs: isolated tumour cells
ENE: extranodal extension

Status post-neoadjuvant treatment: Information not provided; No neoadjuvant treatment given; Residual disease not identified; Residual disease present

ENE: Not identified; Present; Cannot be determined

[a] *Core elements only if SLN biopsy was performed; if no SLN biopsy was performed report only total number of lymph nodes (LNs).*

[b] *The total number of LNs removed includes the number of SLNs (if SLN biopsy was performed) + number of non-SLNs. Non-SLNs are all the LNs that are not submitted as SLNs by the surgeon. If an axillary lymph node dissection has been performed without a SLN biopsy, only the total number of LNs needs to be given.*

[c] *If the LNs were obtained post-neoadjuvant treatment, it is strongly suggested to provide the non-core information summarized in Table 1C.*

[d] *If the size cannot be measured (e.g., LN removed in several pieces and multiple pieces involved by the metastatic process) the largest measurable size should be given as "at least" size. If one-step nucleic acid amplification was used for nodal staging the size will be not assessable; the CK19 mRNA copy numbers can be given alternatively as a quantitative value. (Macrometastasis: one-step nucleic acid amplification assay result with >5000 CK19 mRNA copy number/µL lisate; Micrometastasis: one-step nucleic acid amplification assay result with CK19 mRNA copy number between 250 and 5000/µL lisate)*

[e] *ITCs are tumour deposits spanning ≤0.2 mm and ≤200 cells in a single LN profile. LNs with ITCs are not counted as metastatic LNs.*

[f] *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.*

[g] *If SLN biopsy was performed the minimum number of LNs required for staging purposes is one (sentinel) LN. If no SLN biopsy was performed, non-SLNs usually are obtained by axillary LN dissection (level I + level II +/- level III axillary LNs, depending on regional practices).*

Table 1B: Regional lymph node status – non-core elements

Type of lymph nodes	Number of lymph nodes with macrometastasis (size >2 mm)	Number of lymph nodes with micrometastasis (size >0.2 mm to ≤2 mm or >200 cells)	Total lymph nodes with ITCs when ONLY ITC involvement is present[a,b]	Immunohistochemistry[c] (Yes/No)	One-step nucleic acid amplification[c] (Yes/No)
SLNs					
Non-SLNs					
Total lymph nodes					

[a] *ITCs are tumour deposits spanning ≤0.2 mm and ≤200 cells in a single LN profile. LNs with ITCs are not counted as metastatic LNs.*

[b] *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.*

[c] *The elements summarised in Table 1B are non-core elements (optional reporting). However, if immunohistochemical evaluation or one-step nucleic acid amplification was performed and the results are used for LN staging purpose, the information pertaining to immunohistochemistry or one-step nucleic acid amplification needs to be reported.*

Table 1C: Regional lymph node status post-neoadjuvant treatment – non-core elements

Tumour regression	Number of lymph nodes WITH residual carcinoma	Number of lymph nodes WITHOUT residual carcinoma	Total number of lymph nodes
Not identified			
Present			
Cannot be determined			
Total lymph nodes examined			

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