

# Thymic Epithelial 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**. [SCOPE OF THIS DATASET](#)

indicates multi-select values     indicates single select values

## CLINICAL INFORMATION (select all that apply)

- Not provided
- Myasthenia gravis
- Pure red cell aplasia
- Rheumatoid arthritis
- Lupus
- Addison's disease
- Cushing's disease
- Hypogammaglobulinemia (Good's syndrome)
- Previous neoplasm, *specify*
- Preoperative therapy, *specify*
- Other, *specify*

## OPERATIVE PROCEDURE

- Not specified
- Partial thymectomy
- Total thymectomy
- Extended thymectomy
- Other, *specify*

## SPECIMEN(S) SUBMITTED (select all that apply)

- Not specified
- Partial thymus
- Complete thymus
- Thymus plus surrounding tissue (extended thymectomy)
- Mediastinal pleura
- Anterior mediastinal (pre-vascular) mass
- Pericardium
- Lung
  - Left
    - Wedge biopsy
      - Upper lobe
      - Lower lobe
    - Lobectomy
      - Upper lobe
      - Lower lobe
    - Pneumonectomy
  - Right
    - Wedge biopsy
      - Upper lobe
      - Middle lobe
      - Lower lobe
    - Lobectomy
      - Upper lobe
      - Middle lobe
      - Lower lobe
    - Pneumonectomy

- Phrenic nerve
  - Left     Right     Laterality not specified
- Great vessels
  - Brachiocephalic (innominate) vein
    - Left     Right     Laterality not specified
  - Superior vena cava
  - Extrapericardial pulmonary artery/veins
  - Aorta (ascending, arch or descending)
  - Arch vessels
  - Intrapericardial pulmonary artery
- Myocardium
- Diaphragm
- Separate extrathymic tumour nodules, *specify*
- Lymph nodes, *specify site(s)*
- Other, *specify*

## SPECIMEN INTEGRITY

- Intact specimen
- Surface disrupted
- Fragmented specimen

## MACROSCOPIC SITE OF PRIMARY TUMOUR

- Not specified
- Thymic
  - Single tumour
  - >1 tumour
- Ectopic, *specify site(s)*

## MAXIMUM DIMENSION OF PRIMARY TUMOUR

- Cannot be assessed

mm

## BLOCK IDENTIFICATION KEY

*(List overleaf or separately with an indication of the nature and origin of all tissue blocks)*

**HISTOLOGICAL TUMOUR TYPE** 

(Value list from the World Health Organization, Classification of Thoracic Tumours (2021))<sup>a</sup>

**Thymoma**

- Not identified
- Present

Predominant subtype

	➔	%
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Other subtypes

	➔	%
--	---	---

	➔	%
--	---	---

	➔	%
--	---	---

**Thymic carcinoma**

- Not identified
- Present

Predominant subtype

	➔	%
--	---	---

Other subtypes

	➔	%
--	---	---

	➔	%
--	---	---

	➔	%
--	---	---

**Thymic neuroendocrine tumours**

- Not identified
- Present

Typical carcinoid/ Neuroendocrine tumour, grade 1	➔	%
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Atypical carcinoid/ Neuroendocrine tumour, grade 2	➔	%
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**Thymic neuroendocrine carcinomas**

- Not identified
- Present

Large cell neuroendocrine carcinoma	➔	%
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Small cell carcinoma	➔	%
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**Final histological diagnosis**

(Use 2021 WHO Classification for combined tumours)

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<sup>a</sup> Where relevant, if more than one subtype, list in 10% increments.

**EXTENT OF DIRECT INVASION** 

**Thymus**

- No invasion beyond capsule or limit of the thymus
- Invasion beyond the mediastinum

**Mediastinal pleura**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Pericardium**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Lung (pulmonary parenchyma, visceral pleura, or both)**

- Not applicable
- Cannot be assessed
- Not involved
- Involved, specify lobe(s) of the lung

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**Brachiocephalic (innominate) vein**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Superior vena cava**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Phrenic nerve**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Extrapericardial pulmonary artery or veins**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Aorta (ascending, arch or descending)**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Arch vessels**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Intrapericardial pulmonary artery**

- Not applicable
- Cannot be assessed
- Not involved
- Involved

**Other involved organ(s)/site(s) by direct spread, specify**

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**SEPARATE EXTRATHYMIC TUMOUR NODULES/METASTASES** 

**Pleural and/or pericardial**

- Not identified
- Present

Specify location(s) Specify number/location

	→	
	→	
	→	

**Pulmonary intraparenchymal**

- Not identified
- Present

**Distant organ**

- Not identified
- Present, *specify site(s)*

**RESPONSE TO NEOADJUVANT THERAPY** 

- Cannot be assessed
- Prior treatment not known
- No prior treatment
- No response
- Response present

Percentage viable tumour<sup>b</sup> %

<sup>b</sup> If more than one tumour is present record the percent viable tumour in each.

**MARGIN STATUS** 

- Cannot be assessed
- Not involved
- Involved
- Macroscopic, *specify margin(s), if possible*

- Microscopic, *specify margin(s), if possible*

**LYMPH NODE STATUS** 

- No nodes submitted or found
- Not involved
- Involved (select all that apply)

**Anterior (perithymic) nodes (N1)**

Number of lymph nodes examined

Number of positive lymph nodes

- Number cannot be determined

**Deep intrathoracic or cervical nodes (N2)**

Number of lymph nodes examined

Number of positive lymph nodes

- Number cannot be determined

**Unspecified location within N1 or N2**

Number of lymph nodes examined

Number of positive lymph nodes

- Number cannot be determined

**Location(s) outside N1 or N2 (M1b disease)**

Number of lymph nodes examined

Number of positive lymph nodes

- Number cannot be determined

**COEXISTENT PATHOLOGY** (select all that apply) 

- Thymic hyperplasia
  - Follicular
  - True
  - Lymphoepithelial sialadenitis-like

- Cystic changes
  - In tumour
  - In adjacent thymus

- Other, *specify*

**ANCILLARY STUDIES****Immunohistochemical markers<sup>c</sup>** 

- Not performed  
 Performed

Positive markers	
Negative markers	
Equivocal markers	

## Interpretation and conclusions


**Molecular studies** 

- Not performed  
 Performed, *specify test(s) and result(s)*


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


<sup>c</sup> Applicable to all biopsies, thymectomy and resection specimens of thymic carcinomas and thymic neuroendocrine tumours.

**HISTOLOGICALLY CONFIRMED DISTANT METASTASES** 

- Not identified  
 Present, *specify site(s)*


**PATHOLOGICAL STAGING** **TNM Staging for thymic epithelial tumours (UICC TNM 8<sup>th</sup> edition)<sup>d</sup>****TNM Descriptors** (only if applicable) (select all that apply)

- m - multiple primary tumours  
 r - recurrent  
 y - post-therapy

**Primary tumour (pT)**

- TX<sup>e</sup> Primary tumour cannot be assessed  
 T0 No evidence of primary tumour  
 T1 Tumour encapsulated or extending into the mediastinal fat, may involve the mediastinal pleura  
 T1a No mediastinal pleural involvement  
 T1b Direct invasion of the mediastinal pleura  
 T2 Tumour with direct involvement of the pericardium (partial or full thickness)  
 T3 Tumour with direct invasion into any of the following: lung, brachiocephalic vein, superior vena cava, phrenic nerve, chest wall, or extrapericardial pulmonary artery or vein  
 T4 Tumour with direct invasion into any of the following: aorta (ascending, arch or descending), arch vessels, intrapericardial pulmonary artery, myocardium, trachea or oesophagus

**Regional lymph nodes (pN)**

- No nodes submitted or found  
 NX<sup>e</sup> Regional lymph nodes cannot be assessed  
 N0 No regional lymph node metastasis  
 N1 Metastasis in anterior (perithymic) lymph nodes  
 N2 Metastasis in deep intrathoracic or cervical lymph nodes

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

<sup>e</sup> TX and NX should be used only if absolutely necessary.

**Masaoka-Koga staging for thymomas and thymic carcinoma**

- Not applicable  
 Cannot be determined  
 I Grossly and microscopically completely encapsulated tumour  
 IIa Microscopic transcapsular invasion  
 IIb Macroscopic invasion into thymic or surrounding fatty tissue, or grossly adherent to but not breaking through mediastinal pleura or pericardium  
 III Macroscopic invasion into neighbouring organ (i.e., pericardium, great vessel or lung)  
 IVa Pleural or pericardial metastases  
 IVb Lymphogenous or haematogenous metastases