

# Lung Cancer 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](#)

## OPERATIVE PROCEDURE (select all that apply)

- Wedge resection
- Segmentectomy
- Lobectomy
- Bilobectomy
- Pneumonectomy
- Sleeve resection
- Other, *specify*

## SPECIMEN LATERALITY

- Left
- Right
- Not specified

## ATTACHED ANATOMICAL STRUCTURES

- None submitted
- Submitted, *specify*

## ACCOMPANYING SPECIMENS (select all that apply)

- None submitted
- Lymph node(s)
- Other, *specify*

## TUMOUR SITE (select all that apply)

- Upper lobe
- Middle lobe
- Lower lobe
- Bronchus, *specify site(s)*

## MULTIPLE TUMOUR NODULES

- Cannot be assessed
  - Absent
  - Present
    - Synchronous primary<sup>a</sup>
    - Intra pulmonary metastasis
- Number of tumours
- Site (select all that apply)
- Same lobe
  - Different ipsilateral lobe
  - Contralateral lung
- Indeterminate
- Further evaluation pending
- Yes
  - No

<sup>a</sup> Core elements should be reported for each synchronous primary tumour.

## MACROSCOPIC APPEARANCE OF PLEURA OVERLYING TUMOUR

*Specify*

## ATELECTASIS/OBSTRUCTIVE PNEUMONITIS EXTENDING TO HILAR REGION

- Not assessable
- Absent
- Present

## TUMOUR DIMENSION

- Cannot be determined
- Maximum invasive size  
*(Applicable to resected non-mucinous adenocarcinoma)*
- AND/OR
- Total tumour size

## TUMOUR INVOLVES MAIN BRONCHUS

- Not applicable
- Cannot be assessed
- Not identified
- Present

## BLOCK IDENTIFICATION

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

**HISTOLOGICAL TUMOUR TYPE** (select all that apply) 

(Value list based on the World Health Organization, Classification of Thoracic Tumours (2021))

 Adenocarcinoma**Classification of Adenocarcinoma** Adenocarcinoma in situ (AIS) Non-mucinous  Mucinous Minimally invasive adenocarcinoma (MIA) Non-mucinous  Mucinous Invasive non-mucinous adenocarcinoma**PREDOMINANT SUBTYPE** Lepidic  Micropapillary Acinar  Solid Papillary  Other, *specify***SUBTYPE PERCENTAGES**Lepidic →  %Acinar →  %Papillary →  %Micropapillary →  %Solid →  %OTHER PATTERNS (e.g., cribriform and/or fused glands), *if present*TYPE OF PATTERN →  %TYPE OF PATTERN →  %TYPE OF PATTERN →  % Invasive mucinous adenocarcinoma Mixed invasive mucinous and non-mucinous adenocarcinoma Colloid adenocarcinoma Fetal adenocarcinoma Enteric-type adenocarcinoma Squamous cell carcinoma Squamous cell carcinoma, NOS Squamous cell carcinoma, keratinizing Squamous cell carcinoma, non-keratinizing Basaloid squamous cell carcinoma Lymphoepithelial carcinoma Neuroendocrine carcinomas Small cell carcinoma Large cell neuroendocrine carcinoma Neuroendocrine tumours Typical carcinoid Atypical carcinoid Large cell carcinoma Other, *specify***DISTANCE OF TUMOUR TO CLOSEST RESECTION MARGIN**  mm Cannot be assessed**HISTOLOGICAL TUMOUR GRADE** 

(Applicable to resected invasive non-mucinous adenocarcinoma)

 Grade 1 Grade 2 Grade 3**RESPONSE TO NEOADJUVANT THERAPY**  Prior neoadjuvant therapy not known No prior neoadjuvant therapy Known neoadjuvant therapy**Viable tumour as a % of tumour bed**  %**Major pathological response (<10% viable tumour)** Absent Present**Complete pathological response (no residual viable tumour)** Absent Present**Necrosis** Not identified PresentExtent of necrosis  %**Stroma (including fibrosis)** Not identified PresentExtent of stroma  %**Inflammation** Mild Moderate Severe**DIRECT INVASION OF ADJACENT STRUCTURES** 

(select all that apply)

 Not applicable Not identified Chest wall Phrenic nerve Parietal pericardium Diaphragm Mediastinum Mediastinal fat Mediastinal pleura Great vessels Trachea Recurrent laryngeal nerve Oesophagus Vertebral body Heart**LYMPHOVASCULAR INVASION**  Indeterminate Not identified Present

**VISCERAL PLEURAL INVASION** 

- Cannot be assessed  
 Indeterminate  
 Not identified  
 Present

**Extent of pleural involvement**

- PL1     PL2     PL3

**SPREAD THROUGH AIR SPACES (STAS)** 

- Indeterminate  
 Not identified  
 Present

**PERINEURAL INVASION**

- Indeterminate  
 Not identified  
 Present

**OTHER NEOPLASTIC PROCESSES AND PRECURSORS**

*Specify (e.g., tumourlets, dysplasia, neuroendocrine cell hyperplasia (NEH), atypical adenomatous hyperplasia (AAH))*

  


---


**NON-NEOPLASTIC LUNG DISEASE**

*Specify*

  


---


**SURGICAL MARGIN STATUS** **Bronchial margin**

- Not applicable  
 Not involved  
 Involved by invasive carcinoma  
 Involved by carcinoma in situ only  
 Only peribronchial soft tissue involved

**Vascular margin**

- Not applicable  
 Not involved  
 Involved  
 Only perivascular soft tissue involved

**Other margin 1** (e.g., parenchymal, chest wall margin or sleeve resection proximal and distal margins), *specify*

- Not applicable  
 Not involved  
 Involved

**Other margin 2** (e.g., parenchymal, chest wall margin or sleeve resection proximal and distal margins), *specify*

- Not applicable  
 Not involved  
 Involved

**Residual tumour status (R)**

- R0 - No residual tumour  
 R0 (un) - Residual tumour status not known  
 R1 - Microscopic residual tumour  
 R2 - Macroscopic residual tumour

**LYMPH NODE STATUS** 

Station(s) examined, *specify*

  


---



- Cannot be assessed  
 Not involved  
 Involved by micrometastasis only  
 Involved

Stations involved, *specify*

Total number of lymph nodes examined

Total number of involved lymph nodes

- Number cannot be determined

Involved station 1, *specify*

Total number of lymph nodes from this site

Number of involved lymph nodes

- Number cannot be determined

Involved station 2, *specify*

Total number of lymph nodes from this site

Number of involved lymph nodes

- Number cannot be determined

Involved station 3, *specify*

Total number of lymph nodes from this site

Number of involved lymph nodes

- Number cannot be determined

**Extracapsular extension**

- Cannot be determined  
 Not identified  
 Present, *specify station*

  


---

**ANCILLARY STUDIES****Immunohistochemical markers** 

- Not performed  
 Performed

Positive antibodies	
Negative antibodies	
Equivocal antibodies	

**Conclusions**

--

**Molecular data** 

- Not performed  
 Pending  
 Performed

**EGFR result**

- Indeterminate  
 Mutation absent  
 Mutation present, *describe*

--

**ALK result**

- Indeterminate  
 Rearrangement absent  
 Rearrangement present, *describe*

--

**ROS1 result**

- Indeterminate  
 Rearrangement absent  
 Rearrangement present, *describe*

--

**RET result**

- Indeterminate  
 Rearrangement absent  
 Rearrangement present, *describe*

--

**NTRK result**

- Indeterminate  
 Rearrangement absent  
 Rearrangement present, *describe*

--

**BRAF result**

- Indeterminate  
 Mutation absent  
 Mutation present, *describe*

--

**KRAS result**

- Indeterminate  
 Mutation absent  
 Mutation present, *describe*

--

**MET result**

- Indeterminate  
 Variant not identified  
 Variant present, *specify*

--

**HER2 result**

- Indeterminate  
 Variant not identified  
 Variant present, *specify*

--

**Immuno-oncological data****PDL1 result**

- Indeterminate

Percentage tumour cells positive

%

Antibody clone used

--

**Other, record test(s), methodology and results**


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


**HISTOLOGICALLY CONFIRMED DISTANT METASTASES** 

- Cannot be assessed  
 Not identified  
 Present, *specify site(s)*


**PATHOLOGICAL STAGING (UICC TNM 8<sup>th</sup> edition)<sup>b</sup>** **TNM Descriptors** (only if applicable) (select all that apply)

- m - multiple primary tumours at a single site
- r - recurrent tumours after a disease free period
- y - classification is performed during or following multimodality treatment

**Primary tumour (pT)**

- TX<sup>c</sup> Primary tumour cannot be assessed, or tumour proven by the presence of malignant cells in sputum or bronchial washings but not visualised by imaging or bronchoscopy
- T0 No evidence of primary tumour
- Tis Carcinoma in situ<sup>d</sup>
- T1 Tumour 3 cm or less in greatest dimension, surrounded by lung or visceral pleura, without bronchoscopic evidence of invasion more proximal than the lobar bronchus (i.e., not in the main bronchus)<sup>e</sup>
- T1mi Minimally invasive adenocarcinoma<sup>f</sup>
- T1a Tumour 1 cm or less in greatest dimension<sup>e</sup>
- T1b Tumour more than 1 cm but not more than 2 cm in greatest dimension<sup>e</sup>
- T1c Tumour more than 2 cm but not more than 3 cm in greatest dimension<sup>e</sup>
- T2 Tumour more than 3 cm but not more than 5 cm; or tumour with any of the following features:<sup>g</sup>
- Involves main bronchus regardless of distance to the carina, but without involvement of the carina
  - Invades visceral pleura
  - Associated with atelectasis or obstructive pneumonitis that extends to the hilar region either involving part of or the entire lung
- T2a Tumour more than 3 cm but not more than 4 cm in greatest dimension
- T2b Tumour more than 4 cm but not more than 5 cm in greatest dimension
- T3 Tumour more than 5 cm but not more than 7 cm in greatest dimension or one that directly invades any of the following: parietal pleura, chest wall (including superior sulcus tumours) phrenic nerve, parietal pericardium; or separate tumour nodule(s) in the same lobe as the primary
- T4 Tumour more than 7 cm or of any size that invades any of the following: diaphragm, mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, oesophagus, vertebral body, carina; separate tumour nodule(s) in a different ipsilateral lobe to that of the primary

**Regional lymph nodes (pN)**

- NX<sup>c</sup> Regional lymph nodes cannot be assessed
- N0 No regional lymph node metastasis
- N1 Metastasis in ipsilateral peribronchial and/or ipsilateral hilar lymph nodes and intrapulmonary nodes, including involvement by direct extension
- N2 Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s)
- N3 Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph node(s)

<sup>b</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 25<sup>th</sup> January 2022).

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

<sup>d</sup> Tis includes adenocarcinoma in situ and squamous carcinoma in situ.

<sup>e</sup> The uncommon superficial spreading tumour of any size with its invasive component limited to the bronchial wall, which may extend proximal to the main bronchus, is also classified as T1a.

<sup>f</sup> Solitary adenocarcinoma (not more than 3 cm in greatest dimension), with a predominantly lepidic pattern and not more than 5 mm invasion in greatest dimension in any one focus.

<sup>g</sup> T2 tumours with these features are classified T2a if 4 cm or less, or if size cannot be determined and T2b if greater than 4 cm but not larger than 5 cm.