

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^a
 - Intra pulmonary metastasis
- Number of tumours
- Site (select all that apply)
- Same lobe
 - Different ipsilateral lobe
 - Contralateral lung
- Indeterminate
- Further evaluation pending
- Yes
 - No

^a 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 8th edition)^b **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^c 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^d
- 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)^e
- T1mi Minimally invasive adenocarcinoma^f
- T1a Tumour 1 cm or less in greatest dimension^e
- T1b Tumour more than 1 cm but not more than 2 cm in greatest dimension^e
- T1c Tumour more than 2 cm but not more than 3 cm in greatest dimension^e
- T2 Tumour more than 3 cm but not more than 5 cm; or tumour with any of the following features:^g
- 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^c 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)

^b 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 25th January 2022).

^c TX and NX should be used only if absolutely necessary.

^d Tis includes adenocarcinoma in situ and squamous carcinoma in situ.

^e 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.

^f 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.

^g 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.