Carcinoma of the Thyroid Histopathology Reporting Guide

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

◯ Information not provided

◯ Information provided (select all that apply)

- ☐ Previous history of thyroid tumour or related abnormality, *specify*
- ☐ Relevant biopsy/cytology results, *specify*
- ☐ Imaging findings, *specify*
- ☐ Previous surgery/therapy, *specify*
- ☐ Relevant familial history, *specify*
- ☐ Presence of clinical syndrome, *specify*
- ☐ Other clinical information, *specify*

OPERATIVE PROCEDURE (select all that apply)

◯ Not specified

- ☐ Total thyroidectomy
- ☐ Near total thyroidectomy
- ☐ Hemithyroidectomy
- ☐ Lobectomy
- ☐ Isthmusectomy
- ☐ Partial excision,[a] *specify type if possible*
- ☐ Lymph node dissection
- ☐ Other, *specify*

[a] *Anything less than a lobectomy excluding isthmusectomy, including substernal excision.*

OPERATIVE FINDINGS

◯ Not specified

Intra-operative macroscopic evidence of extrathyroidal extension

- ◯ Information not provided
- ◯ Not identified
- ◯ Identified, *specify location and tissue invaded*

Intra-operative impression of completeness of excision

- ◯ Information not provided
- ◯ Not identified
- ◯ R0/R1
- ◯ R2, *specify location*

Other, *specify*

Version 3.1 Published November 2025 ISBN: 978-1-922324-71-9

SPECIMEN(S) SUBMITTED (select all that apply)

- ○ Not specified
- ☐ Thyroid gland
  - ☐ Left ☐ Right ☐ Isthmus
- ☐ Parathyroid gland(s)
- ☐ Lymph node(s), *specify site(s) and laterality*
- ☐ Other, *specify site(s) and laterality*

TUMOUR FOCALITY

- ○ Unifocal
- ○ Multifocal, *specify number of tumours in specimen (if >5 state such but no need to specify the number)*
- ○ Cannot be assessed, *specify*

TUMOUR SITE (select all that apply)

(Applicable for the most clinically relevant tumour)

- ○ Not specified
- ☐ Lobe
  - ☐ Left ☐ Right
- ☐ Isthmus
- ☐ Pyramidal lobe
- ☐ Soft tissue or muscle, *specify site(s) and laterality*
- ☐ Other, *specify site(s) and laterality*

TUMOUR DIMENSIONS

Maximum tumour dimension (largest tumour)

mm

Additional dimensions (largest tumour)

mm x mm

- ○ Cannot be assessed, *specify*

BLOCK IDENTIFICATION KEY

(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 Endocrine and Neuroendocrine Tumours, 5th Edition (2025))

- ☐ Papillary thyroid carcinoma
  - ☐ Classic (usual, conventional) subtype
  - ☐ Columnar cell subtype
  - ☐ Diffuse sclerosing subtype
  - ☐ Encapsulated subtype
  - ☐ Infiltrative follicular variant
  - ☐ Hobnail subtype
  - ☐ Oncocytic subtype
  - ☐ Solid subtype
  - ☐ Tall cell subtype
  - ☐ Warthin-like subtype
  - ☐ Spindle cell subtype
  - ☐ Papillary carcinoma with fibromatosis/fasciitis-like/ desmoid type stroma
  - ☐ Other subtype, *specify*
- ☐ Follicular thyroid carcinoma (FTC)
  - ☐ FTC, minimally invasive
  - ☐ FTC, encapsulated angioinvasive
  - ☐ FTC, widely invasive
- ☐ Invasive encapsulated follicular variant papillary thyroid carcinoma
  - ○ Encapsulated follicular variant papillary carcinoma, minimally invasive
  - ○ Encapsulated angioinvasive follicular variant papillary carcinoma
  - ○ Widely invasive follicular variant papillary carcinoma
  - ○ Other invasive encapsulated follicular variant papillary thyroid carcinoma, *specify*
- ☐ Oncocytic carcinomas
  - ☐ Oncocytic carcinoma, minimally invasive
  - ☐ Oncocytic carcinoma, encapsulated angioinvasive
  - ☐ Oncocytic carcinoma, widely invasive
- ☐ High grade follicular cell-derived differentiated thyroid carcinoma
  - ○ High grade follicular thyroid carcinoma, *specify subtype*
  - ○ High grade invasive encapsulated follicular variant papillary thyroid carcinoma, *specify subtype*
  - ○ High grade papillary thyroid carcinoma, *specify subtype*
  - ○ High grade oncocytic carcinoma of the thyroid, *specify subtype*
  - ○ High grade differentiated thyroid carcinoma, not otherwise specified (NOS)
- ☐ Poorly differentiated thyroid carcinoma
  - ○ Poorly differentiated thyroid carcinoma, NOS
  - ○ Poorly differentiated oncocytic thyroid carcinoma
  - ○ Other poorly differentiated thyroid carcinoma, *specify*

Version 3.1 Published November 2025 ISBN: 978-1-922324-71-9

HISTOLOGICAL TUMOUR TYPE continued

- [ ] Anaplastic thyroid carcinoma
  - [ ] Anaplastic thyroid carcinoma, NOS ____ %
  - [ ] Anaplastic thyroid carcinoma, squamous cell carcinoma subtype ____ %
- [ ] Medullary thyroid carcinoma
  - ◯ Low grade
  - ◯ High grade
- [ ] Mixed medullary and follicular-cell derived thyroid carcinoma
  - [ ] Mixed medullary-follicular carcinoma
  - [ ] Mixed medullary-papillary carcinoma
  - [ ] Mixed medullary and oncocytic carcinoma
  - [ ] Other mixed medullary and follicular-cell derived thyroid carcinoma, *specify*
- [ ] Salivary gland type carcinoma
  - [ ] Mucoepidermoid carcinoma
  - [ ] Secretory carcinoma
- [ ] Thymic neoplasms within the thyroid
  - [ ] Spindle epithelial tumour with thymus-like differentiation
  - [ ] Intrathyroid thymic carcinoma
- [ ] Thyroid tumours of uncertain cytogenesis
  - [ ] Sclerosing mucoepidermoid carcinoma with eosinophilia
  - [ ] Cribriform-morular thyroid carcinoma
- [ ] Embryonal thyroid neoplasm, thyroblastoma
- [ ] Other malignant thyroid tumours, *specify*

MITOTIC COUNT

- ◯ 0-2 mitoses/2 mm²
- ◯ 3-4 mitoses/2 mm²
- ◯ ≥5 mitoses/2 mm²
- ◯ Cannot be assessed

Exact mitotic count ____ /2 mm²

TUMOUR NECROSIS

- ◯ Not identified
- ◯ Present

TUMOUR ENCAPSULATION/CIRCUMSCRIPTION

- ◯ Encapsulated
- ◯ Infiltrative
- ◯ Other, *specify*

CAPSULAR INVASION

- ◯ Not applicable
- ◯ Not identified
- ◯ Present

LYMPHATIC INVASION

- ◯ Not identified
- ◯ Present

VASCULAR INVASION

- ◯ Not identified
- ◯ Present
  - **Type of vessel involved** (select all that apply)
    - [ ] Capillary
    - [ ] Vein
  - **Extent of vascular invasion**
    - ◯ Focal ◯ Extensive
      - Number of foci ____
  - **Extrathyroidal blood vessel invasion**
    - ◯ Not identified
    - ◯ Present

EXTRATHYROIDAL EXTENSION (select all that apply)

- ◯ Cannot be assessed
- ◯ Not identified
- [ ] Invasion into perithyroid fibroadipose tissue
- [ ] Invasion into skeletal muscle (strap muscle)
- [ ] Invasion into subcutaneous soft tissue, larynx, trachea, oesophagus or recurrent laryngeal nerve
- [ ] Invasion into prevertebral fascia or encasing the carotid artery or mediastinal vessel

MARGIN STATUS

- ◯ Not involved
  - Distance of tumour to closest margin ____ mm
  - Specify closest margin(s) if possible
- ◯ Involved
  - **Extent**
    - ◯ R1 (microscopic), *specify if possible*
    - ◯ R2 (macroscopic), *specify if possible*
  - Location of involved margin(s), *specify if possible*
- ◯ Cannot be assessed, *specify*

LYMPH NODE STATUS

- ◯ No nodes submitted or found

Number of lymph nodes examined ____

- ◯ Not involved
- ◯ Involved
  - Number of involved lymph nodes ____
  - ◯ Number cannot be determined
  - Location of involved lymph nodes, *specify*

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LYMPH NODE STATUS continued

Greatest dimension of largest lymph node with metastasis: ____ mm

Greatest dimension of largest metastatic focus in lymph node: ____ mm

Extranodal extension

- ◯ Not identified
- ◯ Indeterminate
- ◯ Present

COEXISTENT PATHOLOGY (select all that apply)

- ◯ None identified
- ☐ Follicular nodular disease
- ☐ Diffuse hyperplasia
- ☐ Chronic lymphocytic thyroiditis
- ☐ Follicular adenoma
- ☐ Oncocytic adenoma
- ☐ Non-invasive follicular thyroid neoplasm with papillary-like nuclear features (NIFTP)
- ☐ C-cell hyperplasia
  - ◯ Unilateral ◯ Bilateral
- ☐ Other, *specify*

PARATHYROID GLAND STATUS

- ◯ Not identified
- ◯ Present
  - Number of parathyroid gland(s) found: ____
  - ◯ Normal
  - ◯ Involved by carcinoma
  - ◯ Hypercellular/enlarged

ANCILLARY STUDIES

- ◯ Not performed
- ◯ Performed

Anaplastic thyroid carcinoma BRAF p.V600E status

◯ BRAF p.V600E positive ◯ BRAF p.V600E negative

- ◯ Molecular studies
- ◯ Immunohistochemistry

Medullary thyroid carcinoma

Ki-67 proliferation index: ____ %

- ◯ Cannot be assessed

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

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

HISTOLOGICALLY CONFIRMED DISTANT METASTASES

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

PATHOLOGICAL STAGING (UICC TNM 9th edition)[b]

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

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

Primary tumour (pT)[c]

- ◯ TX[d] Primary tumour cannot be assessed
- ◯ T0 No evidence of primary tumour
- ◯ T1 Tumour 2 cm or less in greatest dimension, limited to the thyroid
  - ◯ T1a Tumour 1 cm or less in greatest dimension, limited to the thyroid
  - ◯ T1b Tumour more than 1 cm but not more than 2 cm in greatest dimension, limited to the thyroid
- ◯ T2 Tumour more than 2 cm but not more than 4 cm in greatest dimension, limited to the thyroid
- ◯ T3 Tumour more than 4 cm in greatest dimension, limited to the thyroid or with gross extrathyroidal extension invading only strap muscles (sternohyoid, sternothyroid, thyrohyoid or omohyoid muscles) or parathyroid gland
  - ◯ T3a Tumour more than 4 cm in greatest dimension, limited to the thyroid
  - ◯ T3b Tumour of any size with gross extrathyroidal extension invading strap muscles (sternohyoid, sternothyroid, thyrohyoid or omohyoid muscles) or parathyroid gland
- ◯ T4[e] Includes tumour of any size with gross extrathyroidal extension into major neck structures
  - ◯ T4a Tumour extends beyond the thyroid capsule and invades any of the following: subcutaneous soft tissues, larynx, trachea, oesophagus, recurrent laryngeal nerve or the sternocleidomastoid muscle
  - ◯ T4b Tumour invades prevertebral fascia, mediastinal vessels, or encases carotid artery

Regional lymph nodes (pN)

- ◯ NX[d] Regional lymph nodes cannot be assessed
- ◯ N0 No regional lymph node metastasis
- ◯ N1 Regional lymph node metastasis
  - ◯ N1a Metastasis in level VI (pretracheal, paratracheal, and prelaryngeal/Delphian lymph nodes) or upper/superior mediastinum
  - ◯ N1b Metastasis in other unilateral, bilateral or contralateral cervical (levels I, II, III, IV or V) or retropharyngeal

[b] *Reproduced with permission. Source: UICC TNM Classification of Malignant Tumours, 9th Edition, eds by James Brierley, Meredith Giuliani, Brian O'Sullivan, Brian Rous, Elizabeth Van Eycken. 2025, Publisher Wiley (incorporating errata published 12th October 2025).*

[c] *Including papillary, follicular, poorly differentiated, oncocytic (Hürthle cell), medullary and anaplastic carcinomas.*

[d] *TX and NX should be used only if absolutely necessary.*

[e] *T4 has been added for clarity from AJCC TNM 8th edition.*

Version 3.1 Published November 2025 ISBN: 978-1-922324-71-9