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Renal Epithelial Neoplasms 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

PRE-OPERATIVE TREATMENT (select all that apply)

- ☐ Tumour embolisation
- ☐ Cryoablation
- ☐ Radio frequency ablation
- ☐ External-beam radiation therapy (EBRT)
- ☐ Neoadjuvant systemic therapy
- ☐ Other, *specify*

OPERATIVE PROCEDURE

- ◯ Not specified
- ◯ Radical nephrectomy
- ◯ Total (simple) nephrectomy
- ◯ Partial nephrectomy
- ◯ Other, *specify*

SPECIMEN LATERALITY

- ◯ Not specified
- ◯ Left
- ◯ Right
- ◯ Other (e.g., horseshoe kidney), *specify*

ACCOMPANYING/ATTACHED STRUCTURES (select all that apply)

- ◯ Not submitted
- ☐ Adrenal gland
- ☐ Lymph nodes, *specify*
- ☐ Other organs, *specify*

TISSUE REMOVED FROM SPECIMEN PRIOR TO SUBMISSION

- ◯ No
- ◯ Yes, *specify*

TUMOUR SITE (select all that apply)

- ☐ Upper pole
- ☐ Mid kidney
- ☐ Lower pole
- ☐ Cortex
- ☐ Medulla
- ☐ Other, *specify*

TUMOUR FOCALITY

- ◯ Cannot be assessed
- ◯ Unifocal
- ◯ Multifocal
  - Specify number of tumours

MAXIMUM TUMOUR DIMENSION

(If multiple tumours the maximum dimension of up to the largest five should be recorded)

- ◯ Cannot be assessed

Tumour 1	mm	Tumour 4	mm
Tumour 2	mm	Tumour 5	mm
Tumour 3	mm		

BLOCK IDENTIFICATION KEY

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

HISTOLOGICAL TUMOUR TYPE[a] (select all that apply)

(Value list based on the World Health Organization Classification of Urinary and Male Genital Tumours (2022))

- ☐ Clear cell renal cell carcinoma
- ☐ Multilocular cystic renal neoplasm of low malignant potential
- ☐ Papillary renal cell carcinoma
- ☐ Chromophobe cell renal carcinoma
- ☐ Other oncocytic tumours of the kidney
- ☐ Collecting duct carcinoma
- ☐ Clear cell papillary renal cell tumour
- ☐ Mucinous tubular and spindle cell carcinoma
- ☐ Tubulocystic renal cell carcinoma
- ☐ Acquired cystic disease–associated renal cell carcinoma
- ☐ Eosinophilic solid and cystic renal cell carcinoma
- ☐ Renal cell carcinoma, not otherwise specified (NOS)

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HISTOLOGICAL TUMOUR TYPE[a] continued

- ☐ *TFE3*-rearranged renal cell carcinomas
- ☐ *TFEB*-altered renal cell carcinomas
- ☐ *ELOC* (formerly TCEB1)-mutated renal cell carcinoma
- ☐ Fumarate hydratase–deficient renal cell carcinoma
  - ◯ Hereditary leiomyomatosis and renal cell carcinoma (HLRCC) syndrome–associated renal cell carcinoma
- ☐ Succinate dehydrogenase–deficient renal cell carcinoma
- ☐ *ALK*-rearranged renal cell carcinomas
- ☐ SMARCB1-deficient renal medullary carcinoma
- ☐ Other,[b] *specify*

Comments

[a] *Occasionally more than one histologic type of carcinoma occurs within the same kidney specimen. Each tumour type should be separately recorded.*

[b] *This would apply to cases that are pending additional studies to identify molecularly defined subtypes.*

HISTOLOGICAL TUMOUR GRADE (WHO/ISUP)

- ◯ Not applicable[c]
- ◯ Cannot be assessed
- ◯ Grade 1 - Nucleoli absent or inconspicuous and basophilic at 400x magnification
- ◯ Grade 2 - Nucleoli conspicuous and eosinophilic at 400x magnification, visible but not prominent at 100x magnification
- ◯ Grade 3 - Nucleoli conspicuous and eosinophilic at 100x magnification
- ◯ Grade 4 - Extreme nuclear pleomorphism and/or multi nuclear giant cells and/or rhabdoid and/or sarcomatoid differentiation

[c] *For further information see Note – HISTOLOGICAL TUMOUR GRADE (WHO/ISUP).*

SARCOMATOID FEATURES

- ◯ Not identified
- ◯ Present

Extent of sarcomatoid component %

RHABDOID FEATURES

- ◯ Not identified
- ◯ Present

NECROSIS[d]

- ◯ Indeterminate
- ◯ Not identified
- ◯ Present

Extent of necrosis
(Applicable to clear cell renal cell carcinoma only) %

[d] *Core element for clear cell renal cell carcinoma and chromophobe renal cell carcinoma only; in all other cases it is non-core.*

EXTENT OF INVASION

- ◯ **Tumour limited to the kidney**

Tumour in perinephric fat
- ◯ Cannot be assessed
- ◯ Not identified
- ◯ Present

Tumour in renal sinus
- ◯ Cannot be assessed
- ◯ Not identified
- ◯ Present in fat and/or vascular spaces in the renal sinus

Tumour extends beyond Gerota's fascia
- ◯ Cannot be assessed
- ◯ Not identified
- ◯ Present

Tumour in major veins (renal vein or its segmental branches)
- ◯ Cannot be assessed
- ◯ Not identified
- ◯ Present

Tumour in inferior vena cava
- ◯ Cannot be assessed
- ◯ Not identified
- ◯ Present

Tumour in renal vein wall
- ◯ Not identified
- ◯ Present

Tumour in pelvicalyceal system
- ◯ Cannot be assessed
- ◯ Not identified
- ◯ Present

Tumour in adrenal gland
- ◯ Cannot be assessed
- ◯ Not identified
- ◯ Present
  - ◯ Direct extension
  - ◯ Metastasis

Tumour in other organs/structures
- ◯ Not identified
- ◯ Present, *specify site(s)*

LYMPHOVASCULAR INVASION IN ADJACENT KIDNEY

- ◯ Not identified
- ◯ Present

MARGIN STATUS

- ◯ Cannot be assessed
- ◯ Not involved
- ◯ Involved (select all that apply)
  - ☐ Renal parenchymal margin (partial nephrectomy only)
  - ☐ Renal capsular margin (partial nephrectomy only)
  - ☐ Perinephric fat margin (partial nephrectomy only)
  - ☐ Gerota's fascial margin
  - ☐ Renal vein margin
  - ☐ Ureteral margin
  - ☐ Other, *specify*

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LYMPH NODE STATUS

- ◯ No nodes submitted or found

Number of lymph nodes examined

- ◯ Not involved
- ◯ Involved

Number of positive lymph nodes

- ◯ Number cannot be determined

Size of largest focus mm

Extranodal extension[e]

◯ Not identified ◯ Present

[e] *Extranodal extension is synonymous with extracapsular extension/ spread.*

COEXISTING PATHOLOGY IN NON-NEOPLASTIC KIDNEY

(select all that apply)

- ◯ Not identified
- ◯ Insufficient tissue for evaluation (<5 mm tissue adjacent to the tumour)
- ☐ Tubular (papillary) adenoma(s)
- ☐ Glomerular disease, *specify type*
- ☐ Tubulointerstitial disease, *specify type*
- ☐ Vascular disease, *specify type*
- ☐ Cyst(s), *specify type*
- ☐ Other, *specify*

ANCILLARY STUDIES

- ◯ Not performed
- ◯ Performed (select all that apply)
  - ☐ Immunohistochemistry, *specify test(s) and result(s)*
  - ☐ Molecular findings, *specify test(s) and result(s)*
  - ☐ 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*

PATHOLOGICAL STAGING (UICC TNM 8th edition)[f]

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[g] Primary tumour cannot be assessed
- ◯ T0 No evidence of primary tumour
- ◯ T1 Tumour 7 cm or less in greatest dimension, limited to kidney
  - ◯ T1a Tumour 4 cm or less
  - ◯ T1b Tumour more than 4 cm but not more than 7 cm
- ◯ T2 Tumour more than 7 cm in greatest dimension, limited to kidney
  - ◯ T2a Tumour more than 7 cm but not more than 10 cm
  - ◯ T2b Tumour more than 10 cm, limited to the kidney
- ◯ T3 Tumour extends into major veins or perinephric tissues, but not into the ipsilateral adrenal gland and not beyond Gerota's fascia
  - ◯ T3a Tumour extends into the renal vein or its segmental branches, or invades pelvicalyceal system, or tumour invades perirenal and/or renal sinus (peripelvic) fat but not beyond Gerota's fascia
  - ◯ T3b Tumour extends into the vena cava below the diaphragm
  - ◯ T3c Tumour extends into the vena cava above the diaphragm or invades the wall of the vena cava
- ◯ T4 Tumour invades beyond Gerota's fascia (including contiguous extension into the ipsilateral adrenal gland)

Regional lymph nodes (pN)

- ◯ NX[g] Regional lymph nodes cannot be assessed
- ◯ N0 No regional lymph node metastasis
- ◯ N1 Metastasis in regional lymph node(s)

Distant metastasis (pM)

- ◯ Not applicable
- ◯ M1 Distant metastasis

[f] *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 12th July 2024).*

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

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