

# A guide to CARCINOMA OF RENAL TUBULAR ORIGIN (excision specimens) Histopathology Reporting



Includes the  International Collaboration on Cancer reporting dataset denoted by \*

| Pre-analytical details       |   |   |
|------------------------------|---|---|
| <b>S1.02</b>                 | <b>Information provided on request form</b>   | Not provided<br>OR Text<br>OR Structured entry as below:  |
|                              | Relevant past medical history   | Text  |
|                              | Predisposing factors (including genetic status)   | Text  |
|                              | *Pre-operative treatment (EBRT = External-beam radiation therapy)   | Tumour emboliz.<br>Cryoablation<br>Radio freq.ablation<br>EBRT<br>Other, <i>specify</i>                                       |
|                              | Relevant family history   | Text  |
|                              | Extent of disease   | Text  |
|                              | Previous bx/surgical specimens  | Text  |
|                              | Clinical or differential diagnosis  | Text  |
|                              | <b>Laterality</b>   | Left<br>Right<br>Other, <i>specify</i>  |
|                              | <b>Nature of operation</b>  | Radical nephr.<br>Simple nephr.<br>Partial nephr.<br>Other, <i>specify</i>  |
|                              | Operative findings  | Text  |
|                              | Surgical intent   | Curative<br>Palliative  |
|                              | <b>Tissue removed for research or other purposes</b>  | Not stated<br>No<br>Yes   |
|                              | If yes, specify details of tissue removed   | Text  |
|                              | <b>New primary lesion or recurrence</b>   | New primary<br>Recurr.–regional<br>Recurr.–distant  |
|                              | If recurrence, describe   | Text  |
| <b>S1.03</b>                 | <b>Pathology accession number</b>   | Text  |
| <b>S1.04</b>                 | <b>Principal clinician</b>  | Text  |
| <b>G1.01</b>                 | Comments  | Text  |
| Macroscopic findings         |   |   |
| <b>S2.01</b>                 | <b>Specimen labelled as</b>   | Text  |
| <b>G2.01</b>                 | Nature of specimen  | Fresh OR Fixed<br>AND<br>Intact OR<br>Morcellated   |
|                              | Specify fixative  | Text  |
| <b>S2.02</b>                 | <b>*Specimen laterality</b>   | Not specified<br>Left<br>Right<br>Other, <i>specify</i>   |
| <b>S2.03</b>                 | <b>*Operative procedure</b>   | Not specified<br>Radical nephr.<br>Simple nephr.<br>Partial nephr.<br>Other, <i>specify</i>                                   |
| <b>S2.04</b>                 | <b>*Accompanying/ attached structures</b>   | None submitted<br>OR<br>Adrenal gland<br>L. nodes, <i>specify</i><br>Other organ, <i>spec.</i>                                |
| Macroscopic findings (cont.) |   |   |
| <b>G2.02</b>                 | *Tissue removed prior to submission   | Not stated<br>No<br>Yes, <i>specify</i>   |
| <b>G2.03</b>                 | Kidney dimensions   | __x__mm   |
| <b>G2.04</b>                 | Length of ureter  | __ mm   |
|                              | Length of renal vein  | __ mm   |
|                              | Length of renal artery  | __ mm   |
| <b>G2.05</b>                 | Specimen weight   | __g   |
| <b>G2.06</b>                 | Adherence of renal capsule to visceral surface of perirenal fat   | Not identified<br>Present   |
| <b>G2.07</b>                 | Cortical surface abnormalities  | Text  |
| <b>G2.08</b>                 | *Tumour site(s)   | Not provided<br>Can't be assess'd<br>OR<br>Upper pole<br>Mid zone<br>Lower pole<br>Cortex<br>Medulla<br>Other, <i>specify</i> |
| <b>S2.05</b>                 | <b>*Tumour focality</b>   | Can't be assess'd<br>OR<br>Unifocal<br>Multifocal<br><br>Text<br><br>If multifocal, specify no. of tumours (if possible)      |
| <b>S2.06</b>                 | <b>*Maximum tumour dimension</b> (If multiple tumours the maximum dimension of largest five should be recorded) | __ mm   |
| <b>S2.07</b>                 | <b>Macroscopic extent of invasion</b>   | See p3  |
| <b>G2.09</b>                 | Appearance of cut surface of tumour   | Text  |
| <b>G2.10</b>                 | Abnormal features of the kidney   | Text  |
| <b>S2.08</b>                 | <b>*Block identification key</b>  | Text  |
| <b>G2.11</b>                 | Additional macroscopic comments   | Text  |
| Microscopic findings         |   |   |
| <b>S3.01</b>                 | <b>*Histological tumour type</b>  | See p3  |
| <b>S3.02</b>                 | <b>*Histological tumour grade – WHO/ISUP</b>  | See p3  |
| <b>S3.03</b>                 | <b>*Sarcomatoid morphology</b>  | Not identified<br>Present<br><br>If present, consider recording G3.01   |
| <b>G3.01</b>                 | <b>*Extent of sarcomatoid component</b>   | __%   |

## Microscopic findings (cont.)

|                       |  |  |
|-----------------------|--|--|
| <a href="#">S3.04</a> | <b>*Rhabdoid morphology</b>  | Not identified<br>Present  |
|                       | If present, consider recording G3.02   |  |
| <a href="#">G3.02</a> | <b>*Extent of rhabdoid component</b>   | ___%   |
| <a href="#">S3.05</a> | <b>*Necrosis</b>   | Can't be assess'd<br>Not identified<br>Present                                 |
|                       | If present, record type of necrosis  | Micro. coagulative<br>Macro. tumour  |
|                       | If present, consider recording G3.03   |  |
| <a href="#">G3.03</a> | <b>*Extent of necrosis (clear cell renal cell carcinoma only)</b>                        | ___%   |
| <a href="#">S3.06</a> | <b>*Extent of invasion</b>   | Tumour limited to the kidney   |
|                       |  | OR complete each of the following elements and consider reporting G3.04-5.     |
|                       | <b>*Tumour spread beyond renal capsule</b>   | Can't be assess'd<br>Not identified<br>Present                                 |
|                       | <b>*Tumour in renal sinus</b>  | Can't be assess'd<br>Not identified<br>Present                                 |
|                       | <b>If present, record where</b>  | in fat<br>in vasc. spaces<br>in both   |
|                       | <b>*Tumour extends beyond Gerota's fascia</b>  | Can't be assess'd<br>Not identified<br>Present                                 |
|                       | <b>*Tumour in major veins (renal vein or its segmental branches, inferior vena cava)</b> | Can't be assess'd<br>Not identified<br>Present                                 |
|                       | <b>*Tumour in pelvicalyceal system</b>   | Can't be assess'd<br>Not identified<br>Present                                 |
|                       | <b>*Tumour in adrenal gland</b>  | Not provided<br>Can't be assess'd<br>Not identified<br>Present                 |
|                       | <b>If present, record method</b>   | Direct extension<br>Metastasis   |
|                       | <b>*Tumour in other organs/structures</b>  | Not provided<br>Can't be assess'd<br>Not identified<br>Present, <i>specify</i> |
| <a href="#">G3.04</a> | <b>*Tumour in renal vein wall</b>  | Can't be assess'd<br>Not identified<br>Present                                 |
| <a href="#">G3.05</a> | <b>*Lymphovascular invasion</b>  | Not identified<br>Present  |

## Microscopic findings (cont.)

|                       |   |  |
|-----------------------|---|--|
| <a href="#">S3.07</a> | <b>*LYMPH NODE STATUS</b>   |  |
|                       | <b>*Number of lymph nodes examined</b>  | No. cannot be determined OR<br>___             |
|                       | <b>*Number of positive lymph nodes</b>  | ___  |
|                       | If >0 consider recording G3.06  |  |
| <a href="#">G3.06</a> | <b>*Extranodal extension</b>  | Can't be assess'd<br>Not identified<br>Present |
| <a href="#">S3.08</a> | <b>*MARGIN STATUS</b>   | Not involved<br>Involved<br>Can't be assess'd  |
|                       | If involved specify the sites   | See p3   |
|                       | If not involved, consider reporting G3.07   |  |
| <a href="#">G3.07</a> | Distance from tumour to closest surgical margin ( <i>partial nephrectomy specimens only</i> ) | ___ mm   |
| <a href="#">S3.09</a> | <b>*Co-existing pathology in non-neoplastic kidney</b>  | See p3   |
| <a href="#">G3.08</a> | Additional microscopic comment  | Text   |

## Ancillary findings

|                       |                           |  |
|-----------------------|---------------------------|--|
| <a href="#">G4.01</a> | <b>*Ancillary studies</b> | Not performed<br>P'fomed, <i>specify</i> |
|-----------------------|---------------------------|--|

## Synthesis and overview

|                       |  |        |
|-----------------------|--|--------|
| <a href="#">S5.01</a> | <b>*PATHOLOGICAL STAGING (AJCC 8<sup>TH</sup> EDITION)</b>               | See p3 |
| <a href="#">S5.02</a> | <b>Year of publication &amp; edition of cancer staging system</b>        | Text   |
| <a href="#">G5.01</a> | Diagnostic summary   | Text   |
|                       | Include:   |        |
|                       | a. Specimen laterality   |        |
|                       | b. Operative procedure   |        |
|                       | c. Tumour type   |        |
|                       | d. Tumour grade  |        |
|                       | e. Tumour stage  |        |
|                       | f. Involvement of surgical margin  |        |
| <a href="#">S5.03</a> | <b>Overarching comment</b>   | Text   |
| <a href="#">G5.02</a> | Edition/version number of the RCPA protocol on which the report is based | Text   |

## NOTES

### S2.07 Macro. extent of invasion

#### Single selection value list:

- Tumour confined to kidney

#### OR

#### Multi selection value list (select all that apply):

- Tumour extends into perinephric tissues
- Tumour extends into renal sinus
- Tumour extends beyond Gerota's fascia
- Tumour extends into major veins (renal vein or its segmental branches, inferior vena cava)
- Tumour extends into pelvicalyceal system
- Tumour extends into ipsilateral adrenal gland
  - o Contiguous (pT4)
  - o Noncontiguous (M1)
- Tumour extension into other organ(s)/structure(s), *specify*

### S3.01 Histological tumour type

#### Multi selection value list (select all that apply):

- Clear cell renal cell carcinoma
- Multilocular clear cell renal cell neoplasm of low malignant potential
- Papillary renal cell carcinoma
  - o Type 1
  - o Type 2
  - o Oncocytic
  - o NOS
- Chromophobe renal cell carcinoma
  - o Hybrid oncocytic chromophobe tumour
- Collecting duct carcinoma
- Renal medullary carcinoma
- MiT family translocation renal cell carcinoma
  - o Xp11 translocation renal cell carcinoma
  - o t(6;11) renal cell carcinoma
  - o Other, *specify*
- Mucinous tubular and spindle cell carcinoma
- Tubulocystic renal cell carcinoma
- Acquired cystic disease associated renal cell carcinoma
- Clear cell papillary/tubulopapillary renal cell carcinoma
- Hereditary leiomyomatosis and renal cell carcinoma-associated renal cell carcinoma
- Succinate dehydrogenase (SDH) deficient renal carcinoma
- Renal cell carcinoma, unclassified
- Other, *specify*

Notes: Occasionally more than one histologic type of carcinoma occurs within the same kidney specimen. Each tumour type should be separately recorded.

### S3.02 Histological tumour grade – WHO/ISUP

#### Single selection value list:

- Not applicable
- Grade X - 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

### S3.08 Margin status - sites

#### Multi selection value list (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*

### S3.09 Co-existing pathology in non-neoplastic kidney

#### Single selection value list:

- None identified
- Insufficient tissue for evaluation (<5 mm tissue adjacent to the tumour)

#### OR

#### Multi selection value list (select all that apply):

- Glomerular disease, *specify type*
- Tubulointerstitial disease, *specify type*
- Vascular disease, *specify type*
- Cyst(s) , *specify type*
- Tubular (papillary) adenoma(s)
- Other, *specify*

### S5.01 Pathological staging (AJCC 8<sup>TH</sup> Edition)##

#### TNM descriptors (if applicable)

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 Primary tumour cannot be assessed  
T0 No evidence of primary tumour  
T1 Tumour ≤ 7 cm in greatest dimension, limited to the kidney  
T1a Tumour ≤ 4 cm in greatest dimension, limited to the kidney  
T1b Tumour > 4 cm but ≤ 7 cm in greatest dimension, limited to the kidney  
T2 Tumour > 7 cm in greatest dimension, limited to the kidney  
T2a Tumour > 7 cm but ≤ 10 cm in greatest dimension, limited to the kidney  
T2b Tumour >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 invades perirenal and/or renal sinus 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 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

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