Adrenal Gland Tumours Histopathology Proforma

Mandatory questions (i.e. protocol standards) are in bold (e.g. S1.03).

Family name

Given name(s)

Date of birth

Sex

- Male
- Female
- Intersex/indeterminate

Ethnicity

- Unknown
- Aboriginal/Torres Strait Islander
- Other ethnicity:

Patient identifiers
e.g. MRN, IHI or NHI (please indicate which)

Date of request

S1.03 Accession number

Requesting doctor - name and contact details

Operative procedure

Functionality of the adrenal gland

- Non-functional
- Functional

Type of presentation:

Any previous adrenal surgery

Site of lesion(s)

Laterality of the lesion

- Left
- Right
- Both

Any accompanying specimens

- Lymph nodes
- Kidney
- Other

Relevant clinical information

Pre-operative biopsy

- Not performed
- Performed

Clinical stage

Involvement of adjacent organs

- Not involved
- Involved

Clinical diagnosis or differential diagnosis

New primary cancer or recurrence

- New primary
- Regional (local) recurrence
- Distant metastases

S1.04 Principal clinician caring for the patient

S1.05 Surgeon’s name & contact details
Macroscopic findings

S2.02 Specimen labelled as

G2.01 Specimen dimensions

length mm x width mm x thickness mm

OR  Cannot be recorded

S2.03 Specimen weight

g

S2.04 Tumour capsule

Intact  Not intact

S2.05 No. of macroscopically visible tumour(s)

S2.06 MACROSCOPIC APPEARANCE OF LESION(S)

LESION 1

Location

Cortex  Medulla  Indeterminate  Other

Borders

Encapsulated  Infiltrative

Description

Size in greatest dimension

mm

Distance to nearest excision margin

mm

LESION 2

Location

Cortex  Medulla  Indeterminate  Other

Borders

Encapsulated  Infiltrative

Description

Size in greatest dimension

mm

Distance to nearest excision margin

mm

LESION 3

Location

Cortex  Medulla  Indeterminate  Other

Borders

Encapsulated  Infiltrative

Description

Size in greatest dimension

mm

Distance to nearest excision margin

mm

S2.07 APPEARANCE OF UNINVOLVED ADRENAL GLAND

Cortex

Unremarkable  Atrophic (thin)  Hypertrophic (thickened)  Not identified

Size in greatest dimension

mm

Distance to nearest excision margin

mm
### Medulla

- Unremarkable
- Atrophic (thin)
- Hypertrophic (thickened)
- Not identified

### Cortical nodules

- Not assessable
- Absent
- Present

#### Size of largest nodule

<table>
<thead>
<tr>
<th>mm</th>
</tr>
</thead>
</table>

OR

- Cannot be recorded

### Medullary hyperplasia/nodule

- Not assessable
- Absent
- Present

### Microscopic findings

#### S3.01 Tumour type

- Adrenal cortical tumours
  - Adrenal cortical carcinoma
  - Adrenal cortical adenoma

- Adrenal medullary tumours
  - Malignant phaeochromocytoma
  - Benign phaeochromocytoma
  - Composite phaeochromocytoma/
    paraganglioma

- Extra-adrenal paraganglioma
  - Carotid body
  - Jugulotympanic
  - Vagal
  - Laryngeal
  - Aortico-pulmonary
  - Ganglionic
  - Cauda equina
  - Orbital Nasopharyngeal
  - Extra-adrenal sympathetic paraganglioma
  - Superior and inferior para-aortic paraganglioma
  - Urinary bladder
  - Intrathoracic and cervical paravertebral

- Other adrenal tumours
  - Adenomatoid tumour
  - Sex-cord stromal tumour
  - Soft tissue and germ cell tumours
    - Myelolipoma
    - Teratoma
    - Schwannoma
    - Ganglioneuroma
    - Angiosarcoma

**FOR PHEOCHROMOCYTOMA**

#### S3.13 Cellular pattern

(For pheochromocytoma, diffuse architecture is defined as large nests or diffuse growth >10%).

- Non-diffuse
- Zellballen
- Large and irregular cell nests
- Pseudorosette

#### S3.14 Cellularity

- Low
- Moderate
- High

#### S3.10 Central or confluent necrosis

- Absent
- Present

#### S3.03 Adrenal vein or vena cava invasion

- Absent
- Present

#### S3.04 Capsular invasion

- Absent
- Present
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Absent</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3.06</td>
<td>Extension into adipose tissue</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>S3.07</td>
<td>Adjacent organs</td>
<td>Not involved</td>
<td>Involved</td>
</tr>
<tr>
<td>S3.14</td>
<td>Cellular monotony</td>
<td>Absent</td>
<td>Present</td>
</tr>
<tr>
<td>S3.08</td>
<td>Mitotic rate</td>
<td>[ ] per 10HPF</td>
<td></td>
</tr>
<tr>
<td>S3.09</td>
<td>Atypical mitotic figures</td>
<td>Absent</td>
<td>Present</td>
</tr>
<tr>
<td>S3.11</td>
<td>Nuclear grade (Fuhrman)</td>
<td>grade 1</td>
<td>grade 2</td>
</tr>
<tr>
<td>S3.12</td>
<td>Tumour comprising clear or vacuolated cells</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>S3.13</td>
<td>Cellular pattern</td>
<td>(For conventional adrenocortical neoplasms diffuse growth is defined as more than 1/3 of the tumour forms patternless sheets of cells; trabecular, cord, columnar, alveolar or nesting is not considered to be diffuse)</td>
<td>Non-diffuse</td>
</tr>
<tr>
<td>S3.10</td>
<td>Central or confluent necrosis</td>
<td>Absent</td>
<td>Present</td>
</tr>
<tr>
<td>S3.03</td>
<td>Adrenal vein or vena cava invasion</td>
<td>Absent</td>
<td>Present</td>
</tr>
<tr>
<td>S3.04</td>
<td>Capsular invasion</td>
<td>Absent</td>
<td>Present</td>
</tr>
<tr>
<td>S3.07</td>
<td>Adjacent organs</td>
<td>Not involved</td>
<td>Involved</td>
</tr>
<tr>
<td>S3.05</td>
<td>Sinusoidal invasion (only if conventional or oncocytic adrenocortical neoplasm)</td>
<td>Absent</td>
<td>Present</td>
</tr>
<tr>
<td>S3.15</td>
<td>Non-tumour adrenal gland</td>
<td>[ ] Unremarkable</td>
<td>OR</td>
</tr>
</tbody>
</table>

FOR ALL TUMOURS

G3.02 MALIGANT POTENTIAL

Scoring system (eg PASS, Weiss etc) | [ ]

Score for malignant potential | [ ]

FOR ADRENOCORTICAL TUMOURS

S3.11 Nuclear grade (Fuhrman) | grade 1 | grade 2 | grade 3 | grade 4 | [ ]

S3.12 Tumour comprising clear or vacuolated cells | % | [ ]

S3.13 Cellular pattern | (For conventional adrenocortical neoplasms diffuse growth is defined as more than 1/3 of the tumour forms patternless sheets of cells; trabecular, cord, columnar, alveolar or nesting is not considered to be diffuse) | Non-diffuse | Diffuse architecture | [ ]

S3.10 Central or confluent necrosis | Absent | Present | [ ]

S3.03 Adrenal vein or vena cava invasion | Absent | Present | [ ]

S3.04 Capsular invasion | Absent | Present | [ ]

S3.07 Adjacent organs | Not involved | Involved | [ ]

S3.05 Sinusoidal invasion (only if conventional or oncocytic adrenocortical neoplasm) | Absent | Present | [ ]

FOR ALL TUMOURS

G3.02 MALIGANT POTENTIAL

Scoring system (eg PASS, Weiss etc) | [ ]

Score for malignant potential | [ ]

S3.15 Non-tumour adrenal gland | [ ] Unremarkable | OR | [ ] Not identified/not assessable | OR select all that apply: | Adrenal cortical atrophy | Hyperplasia | Cortical nodules | Medullary hyperplasia/nodule | [ ]
**S3.16 Margin status**

Clear  | Distance to closest margin

Involved  | Involved margin(s)

**S3.17 Lymph node status**

Clear  | Number of positive nodes:

Involved  | (No. of positive nodes out of total no. of nodes)

**G3.03 Coexistent pathological abnormalities**

Absent  | Present  | Description:

**G3.04 Other relevant microscopic comments**

**Ancillary test findings**

**S4.01 Ancillary tests**

Not performed  | Performed  | Complete the following:

**Test result type 1**  eg FISH, IHC

Result

Conclusion

Laboratory performing the test

**Test result type 2**  eg FISH, IHC

Result

Conclusion

Laboratory performing the test

**Test result type 3**  eg FISH, IHC

Result

Conclusion

Laboratory performing the test
S5.01 Tumour stage (AJCC)##

**Primary Tumour (T)**
- **TX** Primary tumour cannot be assessed
- **T0** No evidence of primary tumour
- **T1** Tumour 5 cm or less in greatest dimension, no extra-adrenal invasion
- **T2** Tumour greater than 5 cm, no extra-adrenal invasion
- **T3** Tumour of any size with local invasion, but not invading adjacent organs*
- **T4** Tumour of any size with invasion of adjacent organs*

*Adjacent organs include kidney, diaphragm, great vessels, pancreas, spleen, and liver.

**Regional Lymph Nodes (N)**
- **NX** Regional lymph nodes cannot be assessed
- **N0** No regional lymph node metastasis
- **N1** Metastasis in regional lymph node(s)

**Distant Metastasis (M)**
- **M0** No distant metastasis
- **M1** Distant metastasis

**Stage Grouping**

<table>
<thead>
<tr>
<th>Stage</th>
<th>T</th>
<th>N</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>T1</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>II</td>
<td>T2</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>III</td>
<td>T1</td>
<td>N1</td>
<td>M0</td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>N1</td>
<td>M0</td>
</tr>
<tr>
<td>IV</td>
<td>T3</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td></td>
<td>T4</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td></td>
<td>T4</td>
<td>N1</td>
<td>M0</td>
</tr>
<tr>
<td></td>
<td>Any T</td>
<td>Any N</td>
<td>M1</td>
</tr>
</tbody>
</table>

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