# A guide to Prostate Cancer (Radical Prostatectomy) Histopathology Reporting

Includes the International Collaboration on Cancer reporting dataset denoted by *

## Pre-analytical details

**S1.02** Clinical information provided on request form (complete as narrative or use the structured format below)

### CLINICAL INFORMATION

* Previous history of prostate cancer (including the Gleason grade and score of previous specimens if known)
* Previous biopsy (specify date and where performed)
* Previous therapy
* Other
* Pre-biopsy serum PSA ___ ng/mL

**S1.03** Pathology accession number

**S1.04** Principal clinician

**G1.01** Comments

## Macroscopic findings

**S2.01** Specimen labelled as

**S2.02** Specimen weight (ie Prostate without seminal vesicles) ___ g

**G2.01** Specimen dimensions (prostate) _x_x_mm

**S2.03** Seminal vesicles (present = partially or completely resected) Absent Present

**G2.02** Maximum dimension of seminal vesicle ___ mm AND Right/Left

**S2.04** Lymph nodes (present = partially or completely resected) Absent Present

If present consider recording G2.03

**G2.03** Laterality Left Right Bilateral Other

**S2.05** Block identification key

**G2.04** Additional macroscopic comments

## Microscopic findings

**S3.01** Histological tumour type See p3

**G3.01** Percentage of each morphological type ___ %

**G3.02** TUMOUR LOCATION

- Largest nodule located by quadrant
  - R. anterior
  - R. posterior
  - L. anterior
  - L. posterior

- Largest nodule located by plane
  - Apex
  - Mid
  - Base of prostate

- Other nodules >10mm in diameter
  - None identified
  - Present

  If present, record all

  Locations by quadrant
  - R. anterior
  - R. posterior
  - L. anterior
  - L. posterior

  Locations by plane
  - Apex
  - Mid
  - Base of prostate

**G3.03** Intraglandular extent

- Tumour identified
- No tumour ident.

If identified, specify the value and units used. ___ AND %/mm/mL(cc) or Other units

**G3.04** Maximum size of dominant nodule ___ mm

**S3.02** HISTOLOGICAL GRADE (see p3)

* GLEASON SCORE (if indeterminate specify reason) Indeterminate OR complete the following:

* Primary pattern/grade ___ (1-5)

* Secondary pattern/grade ___ (1-5)

**Tertiary pattern/grade**

(Only record for tertiary grade 5)

- Present
- Not identified

If present, record methodology used to determine tertiary grade

**G score reported by** See p3

**ISUP GRADE (GRADE GROUP)** See p3

**ISUP grade reported by** See p3

**G3.05** Percentage of Gleason pattern 4/5 (applicable for Gleason scores ≥7) ___ % OR Not identified

* G. score 4/5 reported by See p3
| Microscopic findings (cont.) | | Microscopic findings (cont.) |
|-----------------------------|-----------------------------|
| **S3.03** Extraprostatic Extension | Not identified | **S3.10** Lymphovascular invasion |
| If present, record S3.04 and consider recording G3.06 | Present | Not identified |
| **S3.04** Extent of EPE | Focal | Present |
| **G3.06** Location(s) of EPE | Established/Non-focal | Indeterminate |
| **S3.05** Margin Status | Not involved | **G3.14** Additional microscopic comment |
| If involved record the S3.06 location(s) of positive margin(s) & optionally G3.07-9 | Involved | Text |
| **S3.06** Location(s) of positive margin(s) | Text | |
| **G3.07** Extent of margin positivity (If >1 positive margin, extent should reflect cumulative length) | <3 mm linear extent | |
| **G3.08** Gleason pattern of tumour present at positive margin (If >1 pattern at margin select highest) | Gleason pattern 3 tissue to full margin | |
| **G3.09** Type of margin positivity | Extraprostatic (EPE) AND/OR Intraprostatic (capsular incision) | |
| **S3.07** Seminal Vesicle Invasion | Not applicable* | **G3.11** Intraductal carcinoma of prostate |
| If involved, consider recording G3.10 (*Refers to rare cases where seminal vesicles are not included in specimen) | Not involved* | Not identified |
| **G3.10** Site of SVI | Left side | |
| | Right side | |
| | Both sides | |
| **S3.08** Urinary bladder neck invasion (*Refers to cases where bladder neck is not included in specimen) | Not applicable* | |
| | Not involved* | |
| | Involved | |
| **G3.11** Intraductal carcinoma of prostate | Not identified | |
| **S3.09** Lymph Node Status | Present | |
| **Number of lymph nodes examined** | | |
| **Number of involved lymph nodes** | | |
| If >0 consider recording G3.12-13 | | |
| **G3.12** Laterality | Left | |
| | Right | |
| | Bilateral | |
| | Other | |
| **G3.13** Maximum dimension of largest deposit | | |
| | mm | |

**Synthesis and overview**

**S5.01** Pathological Staging (AJCC 8th Edition) See p3

**S5.02** Year and edition of staging system Text

**G5.01** Diagnostic summary Text

Include:
- specimen type
- tumour type
- Gleason score and/or ISUP grade
- tumour stage
e. whether or not the specimen margins are involved

**S5.03** Overarching comment Text

**G5.02** Edition/version number of the RCPA protocol on which the report is based Text
S3.02 HISTOLOGICAL GRADE

Gleason score/ISUP grade reported by
- Largest tumour nodule present
- Highest score tumour (if it is smaller than the largest)
- Composite (global) score

Gleason score 4/5 reported by
- Largest tumour nodule present
- Highest score tumour (if it is smaller than the largest)
- Carcinoma as a whole

ISUP grade/group
- ISUP Grade (Grade Group) 1 (Gleason score ≤6)
- ISUP Grade (Grade Group) 2 (Gleason score 3+4=7)
- ISUP Grade (Grade Group) 3 (Gleason score 4+3=7)
- ISUP Grade (Grade Group) 4 (Gleason score 8)
- ISUP Grade (Group Group) 5 (Gleason score 9-10)
- Indeterminate (specify reason)

ISUP grading system, radical prostatectomy

<table>
<thead>
<tr>
<th>ISUP grade (Grade group)</th>
<th>Gleason score</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>2-6</td>
<td>Only individual discrete well-formed glands</td>
</tr>
<tr>
<td>Grade 2</td>
<td>3+4=7</td>
<td>Predominantly well-formed glands with lesser component (*) of poorly-formed/fused/cribriform glands</td>
</tr>
<tr>
<td>Grade 3</td>
<td>4+3=7</td>
<td>Predominantly poorly-formed/fused/cribriform glands with lesser component (**) of well-formed glands</td>
</tr>
<tr>
<td>Grade 4</td>
<td>4+4=8</td>
<td>Only poorly-formed/fused/cribriform glands</td>
</tr>
<tr>
<td></td>
<td>3+5=8</td>
<td>Predominantly well-formed glands and lesser component (**) of well-formed glands</td>
</tr>
<tr>
<td></td>
<td>5+3=8</td>
<td>Predominantly lacking glands and lesser component (**) of well-formed glands</td>
</tr>
<tr>
<td>Grade 5</td>
<td>9-10</td>
<td>Lack gland formation (or with necrosis) with or without poorly formed/fused/cribriform glands</td>
</tr>
</tbody>
</table>

* A high-grade pattern is included in the grade only if it is at least 5%. If less than 5%, it should be mentioned separately in the report.

** The low-grade pattern is included in the grade only if it is at least 5%.

Gleason scoring of unusual patterns

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Morphology</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuoles</td>
<td>Cytoplasmic change seen in all grades</td>
<td>Grade as if vacuoles were absent, on the underlying architecture</td>
</tr>
<tr>
<td>Mucin extravasation</td>
<td></td>
<td>Grade based on glandular architecture</td>
</tr>
<tr>
<td>Mucinous fibroplasia</td>
<td>Collagenous micronodules</td>
<td>Grade based on glandular architecture</td>
</tr>
<tr>
<td>Glomeruloid structures</td>
<td></td>
<td>Grade as 4</td>
</tr>
<tr>
<td>Foamy gland change</td>
<td></td>
<td>Grade based on glandular architecture</td>
</tr>
<tr>
<td>Small cell neuroendocrine</td>
<td></td>
<td>Do not assign a grade</td>
</tr>
</tbody>
</table>

S5.01 PATHOLOGICAL STAGING (AJCC 8TH EDITION)##

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

Primary tumour (PT)
- TX Primary tumour cannot be assessed
- T0 No evidence of primary tumour
- T2 Organ confined
- T3 Extraprostastic extension
- T3a Extracapsular extension (unilateral or bilateral) or microscopic invasion of bladder neck
- T3b Tumour invades seminal vesicle(s)
- T4 Tumour is fixed or invades adjacent structures other than seminal vesicles such as external sphincter, rectum, levator muscles, and/or pelvic wall

Regional lymph nodes (pN)
- NX Regional lymph nodes were not assessed
- N0 No regional lymph nodes
- N1 Metastases in regional lymph node(s)

Distant metastasis (pM)*
- Not applicable
- M1 Distant metastasis
- M1a Non-regional lymph node(s)
- M1b Bone(s)
- M1c Other site(s) with or without bone disease

* Note: When more than 1 site of metastasis is present, the most advanced category is used. pM1c is the most advanced category.