**A guide to Gastric Cancer Histopathology Reporting**

Includes the International Collaboration on Cancer Reporting dataset denoted by *

<table>
<thead>
<tr>
<th>Clinical details</th>
<th>Microscopic findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S1.01</strong> Clinical info. on request form (complete as narrative or use the structured format below)</td>
<td><strong>S3.01</strong> Tumour site</td>
</tr>
<tr>
<td><strong>S1.02</strong> Clinical staging</td>
<td><strong>S3.02</strong> <em>Histological tumour type</em></td>
</tr>
<tr>
<td><strong>S1.03</strong> Relevant biopsy results</td>
<td><em>Lauren classification</em> (applicable to adenocarcinoma)</td>
</tr>
<tr>
<td><strong>S1.04</strong> Previous diagnosis and treatment for gastric cancer</td>
<td>Intestinal</td>
</tr>
<tr>
<td><strong>S1.05</strong> Endoscopic location of the tumour</td>
<td>Diffuse</td>
</tr>
<tr>
<td><strong>S1.06</strong> Clinical staging</td>
<td>Mixed</td>
</tr>
<tr>
<td><strong>S1.07</strong> Previous partial gastrectomy</td>
<td>Indeterminate</td>
</tr>
<tr>
<td><strong>S1.08</strong> History of chronic gastritis</td>
<td></td>
</tr>
<tr>
<td><strong>S1.09</strong> Other clinical information</td>
<td><strong>S3.03</strong> <em>Histologic tumour grade</em></td>
</tr>
<tr>
<td><strong>S1.10</strong> Neoadjuvant therapy</td>
<td>See p2</td>
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<tr>
<td><strong>S1.11</strong> Operative procedure</td>
<td><strong>S3.04</strong> <em>Extent of invasion</em></td>
</tr>
<tr>
<td><strong>S1.12</strong> Copy to doctor</td>
<td>See p2</td>
</tr>
<tr>
<td><strong>S1.13</strong> Pathology accession number</td>
<td><strong>S3.05</strong> Serosal surface involvement</td>
</tr>
<tr>
<td><strong>S1.14</strong> Principal clinician</td>
<td>Indeterminate</td>
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<tr>
<td><strong>S1.15</strong> Other clinical information</td>
<td>Absent</td>
</tr>
<tr>
<td><strong>S1.16</strong> <strong>G1.01</strong> Copy to doctor</td>
<td>Present</td>
</tr>
<tr>
<td><strong>S2.01</strong> Specimen labelled as</td>
<td><strong>G3.01</strong> <em>Perneural invasion</em></td>
</tr>
<tr>
<td><strong>S2.02</strong> Clinical information</td>
<td>Not identified</td>
</tr>
<tr>
<td><strong>S2.03</strong> <em>Operative procedure</em></td>
<td>Present</td>
</tr>
<tr>
<td><strong>S2.04</strong> <em>Specimen dimensions</em></td>
<td></td>
</tr>
<tr>
<td><strong>S2.05</strong> <em>Tumour focality</em></td>
<td><strong>S3.06</strong> <em>Lymphovascular invasion</em></td>
</tr>
<tr>
<td><strong>S2.06</strong> <em>Tumour site</em></td>
<td>Not identified</td>
</tr>
<tr>
<td><strong>S2.07</strong> <em>Maximum tumour dimension</em></td>
<td>Present</td>
</tr>
<tr>
<td><strong>S2.08</strong> Dist. of tumour to nearest proximal or distal margin</td>
<td><strong>G3.02</strong> Additional microscopic comment</td>
</tr>
<tr>
<td><strong>S2.09</strong> Dist. of tumour to the circumferential resection margin</td>
<td>Text</td>
</tr>
<tr>
<td><strong>S2.10</strong> Serosa appearance</td>
<td>(Applicable to tumours of the cardia)</td>
</tr>
<tr>
<td><strong>S2.11</strong> Involvement of adjacent organs</td>
<td></td>
</tr>
<tr>
<td><strong>S2.12</strong> Distant metastases</td>
<td><strong>G4.01</strong> Other ancillary studies</td>
</tr>
<tr>
<td><strong>S2.13</strong> Block identification key</td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>G2.01</strong> <em>Macroscopic tumour type</em></td>
<td>Text</td>
</tr>
<tr>
<td><strong>G2.02</strong> Other macroscopic comment</td>
<td><strong>S3.07</strong> <em>Response to neoadjuvant therapy</em></td>
</tr>
<tr>
<td></td>
<td>See p2</td>
</tr>
<tr>
<td><strong>S3.08</strong> <em>Margin status</em></td>
<td><strong>S3.09</strong> <em>Lymph node status</em></td>
</tr>
<tr>
<td><strong>G3.03</strong> <em>Number of lymph nodes examined</em></td>
<td>No nodes submitted</td>
</tr>
<tr>
<td><strong>S3.10</strong> <em>Coexistent pathology</em></td>
<td>OR</td>
</tr>
<tr>
<td><strong>S3.11</strong> <em>Histologically confirmed distant metastases</em></td>
<td><strong>G3.04</strong> <em>Number of positive lymph nodes</em></td>
</tr>
<tr>
<td><strong>S3.12</strong> <em>Histologically confirmed distant metastases</em></td>
<td></td>
</tr>
<tr>
<td><strong>G4.02</strong> Additional microscopic comment</td>
<td></td>
</tr>
<tr>
<td><strong>S4.01</strong> MSI/MMR testing</td>
<td>Text</td>
</tr>
<tr>
<td><strong>S4.02</strong> Other ancillary studies</td>
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</tr>
<tr>
<td><strong>S4.04</strong> Neuroendocrine neoplasm markers</td>
<td>Text</td>
</tr>
<tr>
<td><strong>S5.01</strong> PATHOLOGICAL STAGING</td>
<td><strong>G5.01</strong> Diagnostic summary</td>
</tr>
<tr>
<td><strong>S5.02</strong> Year and edition of staging system</td>
<td>Include: Specimen submitted; Tumour type; Tumour stage; Whether or not the specimen margins are involved.</td>
</tr>
<tr>
<td><strong>G5.02</strong> Overarching comment</td>
<td><strong>G5.03</strong> Edition/version of RCPA protocol</td>
</tr>
</tbody>
</table>
## S1.02/S2.03 Operative procedure

**Text**
- OR
- Not specified

Select all that apply:
- Gastrectomy
  - Sub-total
  - Total
- Oesophagogastrectomy
- Other, specify

## S2.05 Tumour focality

- Unifocal
- Multifocal, specify number of tumours in specimen
- Cannot be assessed, specify

Note: If multiple primary tumours are present, separate protocols should be used to record this and all following elements for each primary tumour.

## S2.06 Tumour site

- Not specified
- OR
- Cannot be determined

Select all that apply:
- Region
  - Upper third
  - Middle third
  - Distal third
- Curvature
  - Greater
  - Lesser
- Wall
  - Anterior
  - Posterior
- Other, specify

## G2.01 Macroscopic tumour type

- Not applicable
- Cannot be assessed
- Polypoid mass (Borrmann type I)
- Ulcerative (Borrmann type II)
- Infiltrative ulcerative (Borrmann type III)
- Diffuse infiltrative (Borrmann type IV)
- Other, specify

## S3.02 Histological tumour type

- Tubular adenocarcinoma
- Papillary adenocarcinoma
- Mucinous adenocarcinoma
- Poorly cohesive carcinoma, including signet-ring cell carcinoma and other subtypes
- Mixed adenocarcinoma
- Other histological type/subtype, specify
- Cannot be assessed

## S3.03 Histological tumour grade

- Not applicable
- Cannot be assessed
- Low grade (well and moderately differentiated)
- High grade (poorly differentiated)
- Other, specify

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*Note: Reserved for cases in which an accurate determination between rectum and sigmoid cannot be made by pathological assessment and clinical information regarding site is not available.*

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## S3.03 Extent of invasion

- Cannot be assessed
- No evidence of primary tumour
- Carcinoma in situ (intraepithelial tumour without invasion of the lamina propria, high grade dysplasia)
- Invasion into the lamina propria
- Invasion into the muscularis mucosae
- Invasion into the submucosa
- Invasion into the muscularis propria
- Invasion into the subserosal connective tissue (without invasion of the visceral peritoneum or adjacent structures)
- Invasin into the serosa (visceral peritoneum)
- Invasion into adjacent structures/organs, specify

## S3.07 Response to neoadjuvant therapy

- Cannot be assessed, specify
- No neoadjuvant treatment
- Complete response - no viable cancer cells (score 0)
- Near complete response - single cells or rare small groups of cancer cells (score 1)
- Partial response - residual cancer with evident tumour regression, but more than single cells or rare groups of cancer cells (score 2)
- Poor or no response - extensive residual cancer with no evident tumour regression (score 3)

## S3.09 Margin status

### Invasive carcinoma

- Cannot be assessed
- Not involved
- Distance of tumour from closest margin, specify distance _mm_
- Specify closest margin, if possible
- Involved
  - Distal
  - Proximal
  - Circumferential/Radial

### Dysplasia

- Cannot be assessed
- Not involved
- Involved
  - Carcinoma in situ/high grade dysplasia
  - Low grade
  - Specify margin
    - Distal
    - Proximal
    - Other, specify

## S3.10 Coexistent pathology

- None identified
- OR
- Select all that apply:
  - Helicobacter gastritis
  - Autoimmune gastritis
  - Reactive gastritis
  - Gastric polyps, specify
  - Intestinal metaplasia
  - Dysplasia
    - Low grade
    - High grade
    - Indeterminate
  - Synchronous carcinoma(s), specify
  - Other, specify
G4.01 Other ancillary studies
Not performed

OR

Select all that apply:

- HER2 testing performed, record results
- Epstein-Barr virus (EBV)-status (e.g. EBV encoded RNA (EBER) in situ hybridisation), record results
- PD-L1 IHC, record results
- Other, specify

S5.01 Pathological staging (AJCC 8th edition)##

Suffixes

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

Primary Tumour (T)

TEN Regional lymph nodes cannot be assessed

T0 No evidence of primary tumour

Tis Carcinoma in situ, intraepithelial tumour without invasion of the lamina propria, high grade dysplasia

T1 Tumour invades lamina propria, muscularis mucosa, or submucosa

  pT1a Tumour invades lamina propria or muscularis mucosae

  pT1b Tumour invades submucosa

T2 Tumour invades muscularis propria*

T3 Tumour invades subserosal connective tissue without invasion of the visceral peritoneum or adjacent structures^~

T4 Tumour penetrates serosa (visceral peritoneum) or adjacent structures^~

  pT4a Tumour perforates serosa (visceral peritoneum)

  pT4b Tumour invades adjacent structures/organs

* A tumour may penetrate the muscularis propria with extension into the gastrocolic or gastrohepatic ligaments, or into the greater or lesser omentum, without perforation of the visceral peritoneum covering these structures. In this case, the tumour is classified as T3. If there is perforation of the visceral peritoneum covering the gastric ligaments or the omentum, the tumour should be classified as T4.

^ The adjacent structures of the stomach are the spleen, transverse colon, liver, diaphragm, pancreas, abdominal wall, adrenal gland, kidney, small intestine, and retroperitoneum.

~ Intramural extension to the duodenum or oesophagus is not considered invasion of an adjacent structure, but is classified using the depth of the greatest invasion in any of these sites.

Regional lymph node (pN)

NX Regional lymph nodes cannot be assessed

N0 No regional lymph node metastasis

N1 Metastasis in one or two regional lymph nodes.

N2 Metastasis in three to six regional lymph nodes

N3 Metastasis in seven or more regional lymph nodes

  pN3a Metastasis in seven to 15 regional lymph nodes

  pN3b Metastasis in 16 or more regional lymph nodes