Colorectal Cancer Histopathology Reporting Proforma

Includes the International Collaboration on Cancer reporting dataset denoted by *

Family name

Given name(s)

Date of birth

DD – MM – YYYY

Patient identifiers

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

Date of request

DD – MM – YYYY

S1.03 Accession number

Requesting doctor - name and contact details

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

Indicates multi-select

Indicates single select

Clinical information

*S1.02/S2.02

OR

Information not provided

Known polyposis syndrome

- Familial adenomatous polyposis (FAP)
- MUTYH-associated polyposis (MAP)
- Serrated polyposis
- Other, specify

Lynch syndrome

Chronic inflammatory bowel disease

- Ulcerative colitis
- Crohn disease

Previous polyp(s)

Previous colorectal cancer

Other, specify

NEOADJUVANT THERAPY

Information not provided

Not administered

Administered, describe

G1.01 COPY TO DOCTORS

S1.04 PRINCIPAL CLINICIAN

G1.02 OTHER CLINICAL COMMENTS

Macroscopic findings

S2.01 SPECIMEN LABELLED AS

S2.03 *OPERATIVE PROCEDURE (select all that apply)

- Total colectomy
- Proctocolectomy
- Right hemicolecotomy
- Extended right hemicolecotomy
- Transverse colectomy
- Left hemicolecotomy
- Sigmoid colectomy
- Anterior resection

- High
- Low

Hartmann’s procedure

Abdominoperineal resection

Other, specify

S2.04 SPECIMEN LENGTH

mm

S2.05 *TUMOUR SITE (select all that apply)

- Not specified
- Caecum
- Ascending colon
- Hepatic flexure
- Transverse colon

- Splenic flexure
- Descending colon
- Sigmoid colon
- Rectosigmoid
- Rectum

Other, specify

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

b 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.
**Microscopic findings**

**S2.06 TUMOUR DIMENSIONS**
- Cannot be assessed
- Maximum tumour dimension
- Tumour identification

<table>
<thead>
<tr>
<th>mm</th>
<th>mm</th>
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*Repeat tumour identification and maximum dimension for each tumour identified*

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**S2.07 DISTANCE OF TUMOUR TO THE NEARER PROXIMAL OR DISTAL ‘CUT END’**
- Cannot be assessed
- OR

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**S2.08 DISTANCE OF TUMOUR TO THE NONPERITONEALISED CIRCUMFERENTIAL MARGIN**
- Cannot be assessed
- OR

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**S2.09 PERFORATION**
- Not identified
- Present
- Through tumour (tumour perforation)
- Not involving tumour

*Defined as a macroscopically visible full thickness defect in the wall.*

**S2.10 RELATION OF TUMOUR TO ANTERIOR PERITONEAL REFLECTION**
(Applicable to any specimen containing a rectal cancer e.g., anterior resection, abdominoperineal resection, proctocolectomy)
- Not applicable
- Entirely above
- Entirely below
- Astride

**S2.11 PLANE OF MESORECTAL EXCISION**
(Applicable to any specimen containing a rectal cancer e.g., anterior resection, abdominoperineal resection, proctocolectomy)
- Not applicable
- Mesorectal fascia (complete)
- Intramesorectal (near complete)
- Muscularis propria (incomplete)

**G2.01 PLAN OF SPHINCTER EXCISION**
(Applicable to abdominoperineal excision specimens only and should be reported in addition to the mesorectal plane)
- Extralevator plane
- Sphincteric plane
- Intrasphincteric plane

**G2.02 PLAN OF MESOCOLIC EXCISION**
(Applicable to any specimen containing a colon cancer)
- Mesocolic plane
- Intramesocolic plane
- Muscularis propria plane

**G2.03 PERITONEUM**
- Tumour invades to the peritoneal surface
- Tumour has formed nodule(s) discrete from the tumour mass along the serosal surface

**G2.03 ADDITIONAL MACROSCOPIC COMMENTS**

**S3.01 HISTOLOGICAL TUMOUR TYPE**
(Value list from the World Health Organization Classification of Tumours of the Gastrointestinal Tract (2019))
- Adenocarcinoma not otherwise specified (NOS)
- Mucinous adenocarcinoma
- Signet-ring cell adenocarcinoma
- Medullary carcinoma
- Serrated adenocarcinoma
- Micropapillary adenocarcinoma
- Adenoma-like adenocarcinoma
- Other, specify

**S3.02 HISTOLOGICAL TUMOUR GRADE**
(Only adenocarcinoma NOS and mucinous adenocarcinoma should be graded)
- Not applicable
- Low grade ≥50% (formerly well to moderately differentiated)
- High grade <50% (formerly poorly differentiated)

**S3.03 EXTENT OF INVASION**
- Cannot be assessed
- No evidence of primary tumour
- Invasion into submucosa
- Invasion into muscularis propria
- Invasion into subserosa or into pericolic or perirectal connective tissues
- Invasion onto the surface of the visceral peritoneum
- Invasion directly into other structures/organs, specify

**G3.01 MEASUREMENT OF INVASION BEYOND MUSCULARIS PROPIA**
(Only applicable to pT3 tumours)
- Cannot be assessed
- Distance of invasion beyond the muscularis propria

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**G3.02 INFILTRATORY CELL INFILTRATE**
(Record the scoring system used)
### S3.04 *LYMPHATIC AND VENOUS INVASION*

- Not identified
- Present
  - Small vessel (lymphatic, capillary or venular)
  - Large vessel (venous)
    - Intramural
    - Extramural

### S3.05 *PERINEURAL INVASION*

- Not identified
- Present

### S3.06 *LYMPH NODE STATUS*

- No nodes submitted or found
- Cannot be assessed

**Number of lymph nodes examined**

- Not involved
- Involved

**Number of involved lymph nodes**

### G3.03 APICAL NODE INVOLVEMENT

- Not applicable
- Absent
- Present

### G3.04 RATIO OF INVOLVED/TOTAL LYMPH NODES

$$\text{involved} / \text{total}$$

### S3.07 *TUMOUR DEPOSITS*

- Not identified
- Present
  - Vascular
  - Other

**Number of tumour deposits**

### G3.05 *TUMOUR BUDDING*  
*(Should only be reported in non-mucinous and non-signet ring cell adenocarcinoma areas)*

- Cannot be assessed

**Number of tumour buds**

#### Tumour budding score

- Bd1 - low budding (0-4 buds)
- Bd2 - intermediate budding (5-9 buds)
- Bd3 - high budding (≥10 buds)

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**Note:** After scanning 10 fields on a 20x objective lens, the hotspot field normalised to represent a field of 0.785 mm².

### S3.08 *RESPONSE TO NEOADJUVANT THERAPY*

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

### S3.09 *MARGIN STATUS*

**Longitudinal margin status**

- Cannot be assessed
- Not involved, estimate distance to closer margin
  
  $$\text{mm}$$

- Involved, specify proximal or distal margin
  
  $$\text{mm}$$

*Includes assessment of any separately submitted anastomotic ring(s).*

### Circumferential margin status

- Cannot be assessed
- Not involved, specify distance to nearest 1 mm or ≥10 mm
  
  $$\text{mm}$$  OR  $$\text{≥10 mm}$$

- Involved (≤1 mm), specify 0 mm or distance to nearest 0.1 mm
  
  $$\text{mm}$$

- By primary tumour
- By other, specify

### S3.10 *DISTANT METASTASES*

- Not identified
- Present, specify site(s)

### G3.06 *COEXISTENT PATHOLOGY* (select all that apply)

- None identified
- Polyp(s), specify

- Synchronous carcinoma(s), specify

- Other, specify
Ancillary findings

G4.01 *MISMATCH REPAIR (MMR) IMMUNOHISTOCHEMISTRY
- Not tested
- Not interpretable
- MMR proficient
- MMR deficient
- MLH1/PMS2 loss
- MSH2/MSH6 loss
- MSH6 loss
- PMS2 loss
- Other, specify

G4.04 RAS gene mutation testing (KRAS exons 2, 3 or 4, NRAS exons 2, 3 or 4 or RAS mutation
- Mutated
- Wild type
- Not tested

G4.05 *NEUROENDOCRINE NEOPLASM MARKERS
For neuroendocrine neoplasms only
- Not applicable
- Neuroendocrine markers, specify result(s) if available

AND

Ki-67 proliferation index %

Synthesis and overview

S5.01 *PATHOLOGICAL STAGING (AJCC TNM 8th edition)

TNM Descriptors (only if applicable) (select all that apply)
- m - multiple primary tumours
- r - recurrent
- y - post-therapy

Primary tumour (pT)*
- TX Primary tumour cannot be assessed
- T0 No evidence of primary tumour
- Tis Carcinoma in situ, intramucosal carcinoma (involvement of lamina propora with no extension through muscularis mucosaes)
- T1 Tumour invades the submucosa (through the muscularis mucosa but not into the muscularis propria)
- T2 Tumour invades the muscularis propria
- T3 Tumour invades through the muscularis propria into pericolorectal tissues
- T4 Tumour invades* the visceral peritoneum or invades or adheres** to adjacent organ or structure
- T4a Tumour invades* through the visceral peritoneum (including gross perforation of the bowel through tumour and continuous invasion of tumour through areas of inflammation to the surface of the visceral peritoneum)
- T4b Tumour directly invades* or adheres** to adjacent organs or structures

*Direct invasion in T4 includes invasion of other organs or other segments of the colorectum as a result of direct extension through the serosa, as confirmed on microscopic examination (for example, invasion of the sigmoid colon by a carcinoma of the cecum) or, for cancers in a retroperitoneal or subperitoneal location, direct invasion of other organs or structures by virtue of extension beyond the muscularis propria (i.e., respectively, a tumour on the posterior wall of the descending colon invading the left kidney or lateral abdominal wall; or a mid or distal rectal cancer with invasion of prostate, seminal vesicles, cervix, or vagina).

**Tumour that is adherent to other organs or structures, grossly, is classified cT4b. However, if no tumour is present in the adhesion, microscopically, the classification should be pT1-4a depending on the anatomical depth of wall invasion. The V and L classification should be used to identify the presence or absence of vascular or lymphatic invasion whereas the PN prognostic factor should be used for perineural invasion.

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**S5.02 RESIDUAL TUMOUR STATUS**

- RX: Presence of residual tumour cannot be assessed
- R0: No residual tumour
- R1: Microscopic residual tumour
- R2: Macroscopic residual tumour at the primary cancer site or regional nodal sites. (This designation is not used to indicate metastatic disease identified but not resected at surgical exploration.)

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**Regional lymph nodes (pN)**

- NX: Regional lymph nodes cannot be assessed
- N0: No regional lymph node metastasis
- N1: One to three regional lymph nodes are positive (tumour in lymph nodes measuring ≥0.2 mm), or any number of tumour deposits are present and all identifiable lymph nodes are negative
  - N1a: One regional lymph node is positive
  - N1b: Two or three regional lymph nodes are positive
  - N1c: No regional lymph nodes are positive, but there are tumour deposits in the
    - subserosa
    - mesentery
    - or nonperitonealised pericolic, or perirectal/mesorectal tissues
- N2: Four or more regional nodes are positive
  - N2a: Four to six regional lymph nodes are positive
  - N2b: Seven or more regional lymph nodes are positive

**Distant metastasis (pM)**

- M0: No distant metastasis by imaging, etc.; no evidence of tumour in distant sites or organs (This category is not assigned by pathologists.)
- M1: Metastasis to one or more distant sites or organs or peritoneal metastasis is identified
  - M1a: Metastasis to one site or organ is identified without peritoneal metastasis
  - M1b: Metastasis to two or more sites or organs is identified without peritoneal metastasis
  - M1c: Metastasis to the peritoneal surface is identified alone or with other site or organ metastases

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

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**G5.01 DIAGNOSTIC SUMMARY**

Include: Specimen submitted, Histological tumour type, Diameter of largest tumour, Completeness of excision, Tumour stage.

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**G5.03 OVERARCHING COMMENT**

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**G5.02 Edition/version number of the Cancer Structured Reporting Protocol.**

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