Sponsored by Bowel Cancer UK Beating bowel cancer together

Colorectal Cancer Histopathology Reporting Guide

Family/Last name

Given name(s)

Date of birth DD – MM – YYYY

Patient identifiers

Date of request DD – MM – YYYY

Accession/Laboratory number

Elements in **black text** are CORE. Elements in **grey text** are NON-CORE.

☐ indicates multi-select values ◯ indicates single select values

SCOPE OF THIS DATASET

CLINICAL INFORMATION (select all that apply)

- ◯ 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*

OPERATIVE PROCEDURE

- ◯ Total colectomy
- ◯ Proctocolectomy
- ◯ Right hemicolectomy
- ◯ Extended right hemicolectomy
- ◯ Transverse colectomy
- ◯ Left hemicolectomy
- ◯ Sigmoid colectomy
- ◯ Anterior resection
  - ◯ High
  - ◯ Low
- ◯ Hartmann's procedure
- ◯ Abdominoperineal resection
- ◯ Other, *specify*

TUMOUR SITE[a]

- ◯ Not specified
- ◯ Caecum
- ◯ Ascending colon
- ◯ Hepatic flexure
- ◯ Transverse colon
- ◯ Splenic flexure
- ◯ Descending colon
- ◯ Sigmoid colon
- ◯ Rectosigmoid[b]
- ◯ 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.*

TUMOUR DIMENSIONS

- ◯ Cannot be assessed

Maximum tumour dimension ____ mm

Additional dimensions ____ mm x ____ mm

PERFORATION[c]

- ◯ Not identified
- ◯ Present
  - ◯ Through tumour (tumour perforation)
  - ◯ Not involving tumour

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

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

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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)

PLANE 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

PLANE OF MESOCOLIC EXCISION

(Applicable to any specimen containing a colon cancer)

- ◯ Mesocolic plane
- ◯ Intramesocolic plane
- ◯ Muscularis propria plane

HISTOLOGICAL TUMOUR TYPE

(Value list from the World Health Organization Classification of Tumours of the Gastrointestinal Tract (2019))

- ◯ No evidence of residual tumour
- ◯ Adenocarcinoma not otherwise specified (NOS)
- ◯ Mucinous adenocarcinoma
- ◯ Signet-ring cell adenocarcinoma
- ◯ Medullary carcinoma
- ◯ Serrated adenocarcinoma
- ◯ Micropapillary adenocarcinoma
- ◯ Adenoma-like adenocarcinoma
- ◯ Neuroendocrine carcinoma
  - ◯ Small cell type
  - ◯ Large cell type
- ◯ Mixed neuroendocrine-non-neuroendocrine neoplasm (MiNEN)
- ◯ Other, *specify*

HISTOLOGICAL TUMOUR GRADE

(Only adenocarcinoma NOS and mucinous adenocarcinoma should be graded)

- ◯ Not applicable
- ◯ Low grade (formerly well to moderately differentiated)
- ◯ High grade (formerly poorly differentiated)

EXTENT OF INVASION

- ◯ Cannot be assessed
- ◯ No evidence of primary tumour
- ◯ High grade dysplasia/non-invasive neoplasia
- ◯ 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*

MEASUREMENT OF INVASION BEYOND MUSCULARIS PROPRIA

(Only applicable to pT3 tumours)

- ◯ Cannot be assessed

Distance of invasion beyond the muscularis propria, to nearest 1 mm _____ mm

LYMPHATIC AND VENOUS INVASION

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

PERINEURAL INVASION

- ◯ Not identified
- ◯ Present

LYMPH NODE STATUS

- ◯ Cannot be assessed
- ◯ No nodes submitted or found

Number of lymph nodes examined _____

- ◯ Not involved
- ◯ Involved

Number of involved lymph nodes _____

TUMOUR DEPOSITS

- ◯ Not identified
- ◯ Present

Number of tumour deposits _____

TUMOUR BUDDING

(Should only be reported in non-mucinous and non-signet ring cell adenocarcinoma areas)

- ◯ Cannot be assessed

Number of tumour buds[d] _____

Tumour budding score

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

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

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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*

MARGIN STATUS

Longitudinal margin status

- ◯ Cannot be assessed
- ◯ Not involved, *estimate distance to closer margin*[e]

  mm
- ◯ Involved, *specify proximal or distal margin*[e]

[e] *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*

  mm OR ◯ ≥10 mm
- ◯ Involved (≤1 mm), *specify 0 mm or distance to nearest 0.1 mm*

  mm
  - ◯ By primary tumour
  - ◯ By other, *specify*

COEXISTENT PATHOLOGY (select all that apply)

- ◯ None identified
- ☐ Polyp(s), *specify*
- ☐ Synchronous carcinoma(s), *specify*
- ☐ Other, *specify*

ANCILLARY STUDIES (select all that apply)

For neuroendocrine neoplasms only

- ◯ Not applicable
- ◯ Neuroendocrine markers, *specify result(s) if available*

  AND

  Ki-67 proliferation index %

Mismatch repair (MMR) immunohistochemistry

- ◯ Not tested
- ◯ Not interpretable
- ◯ MMR proficient
- ◯ MMR deficient
  - ◯ *MLH1/PMS2* loss
  - ◯ *MSH2/MSH6* loss
  - ◯ *MSH6* loss
  - ◯ *PMS2* loss
  - ◯ Other, *specify*

MMR status by microsatellite instability (MSI) testing

- ◯ Not tested
- ◯ Test failed
- ◯ MSI-high
- ◯ MSI-low
- ◯ MS-stable

BRAF V600E mutation testing

- ◯ Not tested
- ◯ Test failed
- ◯ Mutated
- ◯ Wild type

MLH1 promoter methylation testing

- ◯ Not tested
- ◯ Test failed
- ◯ Methylated
- ◯ Not methylated
- ◯ Inconclusive

Other, *specify*

HISTOLOGICALLY CONFIRMED DISTANT METASTASES

- ◯ Not identified
- ◯ Present, *specify site(s)*

PATHOLOGICAL STAGING (UICC TNM 8th edition)[f]

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[g] Carcinoma in situ: invasion of lamina propria
- ◯ T1 Tumour invades submucosa
- ◯ T2 Tumour invades muscularis propria
- ◯ T3 Tumour invades subserosa or into non-peritonealized pericolic or perirectal tissues
- ◯ T4 Tumour directly invades other organs or structures and/or perforates[h] visceral peritoneum
  - ◯ T4a Tumour perforates visceral peritoneum[i]
  - ◯ T4b Tumour directly invades other organs or structures[j,k]

[g] *Use of the category pTis is not approved in this dataset.*

[h] *Perforation in this context implies penetration of the visceral peritoneum.*

[i] *Invades through to visceral peritoneum to involve the surface.*

[j] *Direct invasion in T4b includes invasion of other organs or segments of the colorectum by way of the serosa, as confirmed on microscopic examination, or for tumours in a retroperitoneal or subperitoneal location, direct invasion of other organs or structures by virtue of extension beyond the muscularis propria.*

[k] *Tumour that is adherent to other organs or structures, macroscopically, is classified cT4b. However, if no tumour is present in the adhesion, microscopically, the classification should be pT1-3, depending on the anatomical depth of wall invasion.*

Regional lymph nodes (pN)

- ◯ NX Regional lymph nodes cannot be assessed
- ◯ N0 No regional lymph node metastasis
- ◯ N1 Metastasis in 1 to 3 regional lymph nodes
  - ◯ N1a Metastasis in 1 regional lymph node
  - ◯ N1b Metastasis in 2 to 3 regional lymph nodes
  - ◯ N1c Tumour deposit(s), i.e., satellites,[l] in the subserosa, or in non-peritonealized pericolic or perirectal soft tissue without regional lymph node metastasis
- ◯ N2 Metastasis in 4 or more regional lymph nodes
  - ◯ N2a Metastasis in 4-6 regional lymph nodes
  - ◯ N2b Metastasis in 7 or more regional lymph nodes

[l] *Tumour deposits (satellites) are discrete macroscopic or microscopic nodules of cancer in the pericolorectal adipose tissue's lymph drainage area of a primary carcinoma that are discontinuous from the primary and without histological evidence of residual lymph node or identifiable vascular or neural structures.*

Distant metastasis (pM)

- ◯ M0[m] No distant metastasis
- ◯ M1 Distant metastasis
  - ◯ M1a Metastasis confined to one organ (liver, lung, ovary, non-regional lymph node(s)) without peritoneal metastasis
  - ◯ M1b Metastasis in more than one organ
  - ◯ M1c Metastasis to the peritoneum with or without other organ involvement

[m] *No pathological stage use clinical stage cM0.*

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