# Victorian Consensus Data Set

# Colorectal Cancer

Version 1.0

2010


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This document may also be downloaded from the Cancer Council Victoria website at:
cancervic.org.au/about-our-research/victorian_cancer_registry/vcds-project/

# Acknowledgements

Cancer Council Victoria and Western Central Melbourne Integrated Cancer Services jointly fund the Victorian Consensus Data Sets Project.

A governance committee oversees the project with representatives from the following organisations:

- Cancer Council Victoria (CCV)
- Metropolitan Integrated Cancer Services (ICS)
- Regional Integrated Cancer Services (ICS)
- Victorian Cooperative Oncology Group (VCOG)
- BioGrid
- Victorian Department of Health
- Consumer representatives

# Contents

# About the Victorian Consensus Data Sets (VCDS)

Cancer care is complex, and consistency of meaning is vital to enhance information sharing among users of the data.

The VCDS are data set specifications that provide standard definitions for each of the 10 Victorian tumour streams.

These tumour streams were recommended by the Ministerial Taskforce for Cancer in July 2005 (http://www.health.vic.gov.au/cancer/docs/faqs-docs/faqstumourstreams.pdf) to support management of cancer patients and service improvement.

The aim of developing standard definitions is to allow the collection of consistent data in a range of IT systems. Among other benefits, it will expand the evidence base to enhance health planning and clinical care.

The 10 tumour streams are:

- Breast
- Central nervous system
- Colorectal
- Genitourinary
- Gynaecology
- Haematological malignancies
- Head and neck (including thyroid)
- Lung (including mesothelioma)
- Skin (malignant melanoma)
- Upper gastrointestinal (including pancreas, liver and other associated organs)

Each of the above tumour streams will have a specialist VCDS data set specification.

The data set specifications can be downloaded from the VCDS Project website at cancervic.org.au/about-our-research/victorian_cancer_registry/vcds-project/

## How to use the VCDS

**Please note:** The specialist tumour stream VCDS must be used with the Generic VCDS, which is the core data set specification. The Generic VCDS contains data elements that are collected for each cancer patient, regardless of tumour stream.

The generic (or core) data elements are grouped in sections on, for example: Patient identification details, consultation and referral details, patient history, diagnosis, care planning, treatments, side effects, outcome, contact with patient, recurrence.

The specialist tumour stream VCDS contain supplementary data elements, which aim to capture the specialist treatment and care planning required for patients with cancers from the specific tumour stream.

## Is the use of the VCDS mandatory?

The VCDS are not mandatory or minimum data sets. Databases or registries developed across any jurisdiction may be subsets or supersets of the data elements as defined in the VCDS (as determined by the intention of the database and resources available). However, to ensure consistency across data collections, the definitions for the data elements included should be those of the VCDS.

## Development of the VCDS

Agreement is reached after wide ranging consultation on the items to be included and their definitions. Wherever possible, data elements are consistent with national standards (Australian Institute of Health & Welfare) and structured pathology reporting protocols for cancer (Royal College of Pathologists Australia). Please refer to the source documents provided in the reference section for each data element for more information.

# Guide to the VCDS data element attributes (data standards)

The VCDS development is based, where possible, on using existing national health data standards. To read more about the national health metadata standards, please visit meteor.aihw.gov.au/content/index.phtml/itemId/276533

This guide provides an overview of the types of data attributes and their definitions for each of the VCDS data elements.

### Data element name

### Identifying and definitional attributes

| | |
|---|---|
| Definition | A statement that expresses the essential nature of a data element and its differentiation from all other data elements. |
| Rationale | The reason for collecting this data element. |

### Representational attributes

| | |
|---|---|
| Data type | The type of symbol or character, or other designation used to represent the data element, for example, Number. |
| Representation class | Describes whether the valid values for the data item take the form of a code set or free text. If the form is described as 'Code' the relevant code set or sets will be specified in the Data domain section. |
| Field size maximum | The maximum number of characters allowable to represent the data element. |
| Format | A generic example of what the data element should look like in the unit record. For example, dates should be represented in the format of DDMMYYYY where DD represents the day, MM represents the month, and YYYY represents the four-digit numeric for the year. The Data type indicates whether it is alphabetic or alphanumeric. |
| Data domain | The set of possible values for the data item. This may take the form of a code set, or a description of the possible values. Domain values are only specified where size of the code set is small enough to be reasonably reproduced in the document. In other instances the domain may be indicated by reference to a source document. |
| Guide for use | These are comments designed to assist in further defining aspects of the data domain. |
| Validation rules | These are included to assist in reducing input error. Where validation rules are known to exist, they have been included to assist with the programming. |
| Related data element | Data elements that have some direct relationship with the data element being described. |

### Additional information

| | |
|---|---|
| References | Documents listed here have been used as references when designing the specified item. Also listed are names of the organisations that developed the source document or provided advice on the data item. |

# Enquiries

Any enquiries about or comments on this publication should be directed to:

Christine Moje
Coordinator, Victorian Consensus Data Sets (VCDS) Project
Cancer Council Victoria
Carlton VIC 3053

T: (03) 9635 5472
E: christine.moje@cancervic.org.au

# Colorectal Cancer Data Elements

## Initial presentation

## Referral source – colorectal cancer

### Identifying and definitional attributes

| | |
|---|---|
| Definition | The person or agency responsible for the referral of a patient to a service provider agency. |
| Justification | Collected to assist in the analyses of inter-service client flow and for service planning. |

**Representational attributes**

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Data domain

| Code | **Description** |
|---|---|
| 1 | General Practitioner |
| 2 | Organised colorectal cancer screening program |
| 3 | Medical specialist/Surgeon |
| 4 | Hospital Ward/Accident & Emergency |
| 5 | Family Cancer Centre |
| 6 | Self |
| 7 | Second opinion |
| 8 | Other |
| 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | The referral source should be obtained from the patient's medical record at initial presentation to identify the source of detection of cancer. The referral source should not change with subsequent assessments. |
| Validation rules | |
| Related data element | |

### Additional information

References

# Method of detection - colorectal cancer

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Description of the principal method by which the cancer was detected at initial presentation. |
| Justification | Collected to determine method by which cancer was detected and effectiveness of screening programs such as National Bowel Cancer Screening Program.<br>Screening is also undertaken using endoscopic techniques in patients identified as high-risk for colorectal cancer.<br>There are two main types of Faecal Occult Blood Testing - immunochemical tests and traditional chemical (guaiac) tests. Both detect the presence of occult blood in faeces. FIT uses an immunological method to identify the haem protein whereas a guaiac test uses a chemical reaction.<br>The immunochemical FOBT (also known as FIT) has been selected as the preferred testing method for the National Bowel Cancer Screening Program, because in contrast to the guaiac FOBT, it has no restrictions on diet or medication. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Data domain

| Code | Description |
|---|---|
| 0 | Symptomatic |
| 1 | Screening – National Bowel Cancer Screening Program (FOBT) |
| 2 | Screening – FOBT test (not as part of National screening program) |
| 3 | Screening – Endoscopy (sigmoidoscopy/colonoscopy) |
| 4 | Surveillance – Follow up after previous bowel disease |
| 5 | Screening – Other or not otherwise specified |
| 9 | Not stated / inadequately described |

Guide for use

It is assumed that Codes 1 to 5 Screening are used for asymptomatic patients.

Code 1: The cancer was detected in the organised National Bowel Cancer Screening Project FIT provided by the Australian Government Department of Health and Ageing free of charge to eligible citizens.

Code 2: The cancer was detected by FOBT but not through the

| | |
|---|---|
| | National screening program. This could be organised by a doctor or the patient at their own discretion without symptoms of disease.<br>Code 3: The cancer was detected through endoscopic screening such as flexible sigmoidoscopy and colonoscopy. It should not be used for patients who have been referred for endoscopy due to presence of symptoms or after the results of a FOBT.<br>Code 4: Surveillance screening in patients with previous bowel disease such as inflammatory bowel disease, adenoma or colorectal cancer.<br>Code 6:Use for any other screening not included in Codes 1 to 4. |
| Validation rules | |
| Related data element | Symptomatic presentation – colorectal |

## Additional information

| | |
|---|---|
| References | National Bowel Cancer Screening Program http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/bowel-about (viewed 22 December 2009) |

# Symptomatic presentation (colorectal cancer)

## Identifying and definitional attributes

| | |
|---|---|
| Definition | A description of the presentation of the patient. |
| Justification | Collected to determine conditions in which tumour was initially detected. The presentation of the patient at time of surgery is an important item for data collection as patients who present in emergency with bowel obstructions or perforation, may have a worse prognosis than patients who have been admitted for a scheduled appointment/surgery/screening. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | [N] |

Value domain

| Code | Description |
|---|---|
| 0 | Asymptomatic |
| 1 | Symptomatic but not requiring emergency surgery |
| 2 | Emergency presentation, requiring immediate surgery and/or resuscitation |
| 3 | Urgent |
| 8 | Other |
| 9 | Not stated/inadequately described |

Guide for use

This information should be obtained from the patient's pathology report, the patient's medical record, or the patient's medical practitioner/nursing staff.

Code 0: Patient is asymptomatic but condition was detected during screening or follow-up colonoscopy.

Code 1: Patient presents with symptoms but does not require emergency surgery. Symptoms include change in bowel habits, blood in motion, tiredness, weight loss, anaemia.

Code 2: The patient is an emergency presentation and requires immediate surgery and/or resuscitation. It includes bowel obstruction, perforation (with abscess or peritonitis) and bleeding.

Code 3: The patient requires urgent treatment but not necessarily immediate surgery.

It is noteable that many patients who have an emergency admission do not have emergency surgery and their risk of dying from surgery approximates to that of an elective case.

Validation rules

Related data element

## Additional information

References

Cancer Institute of NSW NSW Oncology Group Colorectal Minimum Data Set Extension Data Dictionary Draft Version 1 August 2007

# Surgical presentation – perforation (colorectal cancer)

## Identifying and definitional attributes

| | |
|---|---|
| Definition | The presence and type of bowel perforation seen at surgery for colorectal cancer. |
| Justification | Collected to determine conditions in which tumour was initially detected. The presentation of the patient at time of surgery is an important item for data collection as patients who present in emergency with bowel obstructions or perforation, may have a worse prognosis than patients who have been admitted for a scheduled appointment/surgery/screening. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | [N] |

Value domain

| Code | Description |
|---|---|
| 0 | No perforation |
| 1 | Perforation away from tumour |
| 2 | Perforation through tumour during surgical immobilisation |
| 3 | Perforation through tumour prior to surgery |
| 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's medical record, or the patient's medical practitioner/nursing staff. |
| Validation rules | |
| Related data element | |

## Additional information

References

RCPA Colorectal Cancer Structured Reporting Protocol, 1st Ed, 2010
http://www.rcpa.edu.au/Publications/StructuredReporting/CancerProtocols.htm
(viewed 3 March 2010)

# Surgical presentation – obstruction (colorectal cancer)

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Whether or not there is obstruction of the bowel at surgery for colorectal cancer. |
| Justification | Collected to determine conditions in which tumour was initially detected.<br>The presentation of the patient at time of surgery is an important item for data collection as patients who present in emergency with bowel obstructions or perforation, may have a worse prognosis than patients who have been admitted for a scheduled appointment/surgery/screening. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | [N] | |
| Value domain | **Code** | **Description** |
| | 0 | Clinical obstruction absent |
| | 1 | Clinical obstruction present |
| | 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's medical record, or the patient's medical practitioner/nursing staff. |
| Validation Rules | |
| Related data element | |

## Additional information

| | |
|---|---|
| References | RCPA Colorectal Cancer Structured Reporting Protocol, 1st Ed, 2010<br>http://www.rcpa.edu.au/Publications/StructuredReporting/CancerProtocols.htm<br>(viewed 3 March 2010) |

# Patient history

## Number of first degree relatives with colorectal cancer

### Identifying and definitional attributes

| | |
|---|---|
| Definition | Any first-degree relatives (mother, father, sibling or offspring) who have been diagnosed with colorectal cancer. |
| Justification | A first-degree relative is a family member who shares about 50 percent of their genes with a particular individual in a family. First-degree relatives include parents, offspring, and siblings.<br>Family history of cancer may indicate genetic factors to be investigated. |

### Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Total | |
| Field size maximum | 2 | |
| Format | N[N] | |
| Value domain | **Valid range:** | |
| | 1 - 20 | |
| | 0 | No first degree relatives with colorectal cancer |
| | 88 | Family history status unknown or not stated. |
| | 99 | Not stated. |
| Guide for use | Record self-reported number of first-degree relatives (parent, sibling or child) diagnosed with coloretcal cancers.<br>If there are no self-reported first degree relatives that had colorectal cancer, record 0. | |
| Validation rules | | |
| Related data element | | |

### Additional information

References

# Diagnosis and Pathology

## Rectal cancer level (distance to anal verge)

### Identifying and definitional attributes

| | |
|---|---|
| Definition | The distal level of rectal cancer from the anal verge, measured in centimetres. |
| Justification | Rectal tumours have a less favourable prognosis than colon cancers. Rectal cancers positioned lower down in the rectum are associated with an increased recurrence rate, compared to cancers positioned in the mid- or upper regions of the rectum. |

### Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Total | |
| Field size maximum | 2 | |
| Format | [NN] | |
| Value domain | **Valid range:** | |
| | 0 - 20 cm | |
| | 88 | Unknown |
| | 99 | Not stated |

| | |
|---|---|
| Guide for use | Only record this measurement where the primary site is identified as rectum. A tumour may be described as rectal on clinical examination but surgically found to be arising above the peritoneal reflection and therefore colonic in origin. In these circumstances the surgical findings or pathology report should be used to identify the primary site.<br>The measurement of the distance to the anal verge should be present in the patient's medical record. The clinician may measure the distance by rigid sigmoidoscopy, from operative findings or digital rectal examination. Where there are multiple measurements, rigid sigmoidoscopy measurements should take precedence over operative findings which in turn take priority over digital rectal examination.<br>It should be noted that measurements taken on pathology specimens may be affected by neo-adjuvant therapy or fixation. However, clinical notes in the pathology report may contain the sigmoidoscopy or operative findings. |
| Validation rules | Primary site = rectum |
| Related data element | |

## Additional information

References

Cancer Institute of NSW NSW Oncology Group Colorectal Minimum Data Set Extension Data Dictionary Draft Version 1 August 2007

Association of Coloproctology of Great Britain & Ireland data-set for national bowel cancer audit http://www.nbocap.org.uk/datasets/ACPGBI%20dataset%20v3.pdf (viewed 22 January 2010)

# Distance from proximal margin – colorectal cancer

## Identifying and definitional attributes

| | |
|---|---|
| Definition | The distance of invasive carcinoma from the proximal surgical resection margin, in millimetres. |
| Justification | Collected to identify distance of invasive cancer from surgical margins for patient management as margin involvement is associated with risk of recurrence. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Total | |
| Field size maximum | 3 | |
| Format | NNN | |
| Value domain | **Valid range**: | |
| | 000 - 990 | Between 000 and 990 mm from margin |
| | 990 – ≥990mm | More than 990 mm from margin |
| | 888 | Not stated |
| | 999 | Unknown |
| Guide for use | The distance from the nearest resection margins should be initially assessed on macroscopic examination of the specimen. The measurements should be confirmed microscopically.<br>Report distance of invasive carcinoma from surgical margins in mm. | |
| Validation rules | For invasive cancer only | |
| Related data element | | |

## Additional information

References

# Distance from distal margin – colorectal cancer

## Identifying and definitional attributes

| | |
|---|---|
| Definition | The distance of invasive carcinoma from the distal surgical resection margin, in millimetres. |
| Justification | Collected to identify distance of invasive cancer from surgical margins for patient management as margin involvement is associated with risk of recurrence. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Total | |
| Field size maximum | 3 | |
| Format | NNN | |
| Value domain | **Valid range:** | |
| | 000 - 990 | Between 000 and 990 mm from margin |
| | 990 – ≥990mm | More than 990 mm from margin |
| | 888 | Not stated |
| | 999 | Unknown |
| Guide for use | The distance from the nearest resection margins should be initially assessed on macroscopic examination of the specimen. The measurements should be confirmed microscopically. | |
| Validation rules | For invasive cancer only | |
| Related data element | | |

## Additional information

References

# Distance to non-peritonealised circumferential margin – rectal cancer

## Identifying and definitional attributes

| | |
|---|---|
| Definition | The distance of rectal cancer from the non-peritonealised circumferential margin, measured in millimetres.<br>Involvement of the non-peritonealised circumferential resection margin by tumour is defined as tumour present at or within 1 mm of the margin. |
| Justification | Rectal tumours have a less favourable prognosis than colon cancers. Involvement of the non-peritonealised circumferential resection margin has been shown to be a significant prognostic factor for local and distant recurrence and overall reduced survival in rectal cancer. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Total | |
| Field size maximum | 3 | |
| Format | {N[NN} | |
| Value domain | **Valid range:** | |
| | 000 - 990 | Between 000 and 990 mm from margin |
| | 990 – ≥990mm | More than 990 mm from margin |
| | 888 | Unknown |
| | 999 | Not stated |
| Guide for use | The non-peritonealised circumferential resection margin is also known as the mesorectal margin and radial margin. The term margin refers to true surgical resection margins and does not include naturally occurring surfaces such as serosa. Involvement of the latter is captured in the T stage. | |
| Validation rules | Primary site = rectum | |
| Related data element | | |

## Additional information

| | |
|---|---|
| References | Cancer Institute of NSW NSW Oncology Group Colorectal Minimum Data Set Extension Data Dictionary Draft Version 1 August 2007<br>Quirke P., Dixon M. F. The prediction of local recurrence in rectal adenocarcinoma by histopathological examination Int J Colorect Dis 1988, 3:127-131<br>UICC – TNM classification of Malignant Tumours, 6th Edition |

# Site of tumour in relation to the anterior peritoneal reflection – rectal cancer

## Identifying and definitional attributes

| | |
|---|---|
| Definition | The position of the tumour in relation to the anterior peritoneal reflection. |
| Justification | The anterior aspect of the rectum is covered by peritoneum down to the peritoneal reflection. Tumours below the anterior reflection have higher rates of local recurrence than those occurring above the anterior reflection, which are surrounded by peritoneum. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Value domain

| Code | Description |
|---|---|
| 1 | Entirely above the anterior reflection |
| 2 | Astride or at the anterior reflection |
| 3 | Entirely below the anterior reflection |
| 8 | Not applicable – not rectal cancer |
| 9 | Not known |

| | |
|---|---|
| Guide for use | The non-peritonealised circumferential resection margin is also known as the mesorectal margin and radial margin. |
| Validation rules | Primary site = rectum |
| Related data element | |

## Additional information

References

RCPA Colorectal Cancer Structured Reporting Protocol, 1st Ed, 2010
http://www.rcpa.edu.au/Publications/StructuredReporting/CancerProtocols.htm
(viewed 3 March 2010)

# Extramural venous invasion (surgical resection specimen)

## Identifying and definitional attributes

| | |
|---|---|
| Definition | A description of the presence of tumour within an extramural endothelium-lined space that is either surrounded by a rim of muscle or contains red blood cells. |
| Justification | The term “lymphovascular invasion” should not be used in this context, as lymphatic vessel involvement is not classified as extramural venous invasion. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Value domain

| Code | Description |
|---|---|
| 0 | Not present |
| 1 | Present |
| 8 | Not applicable |
| 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | Code 8: No resection carried out or surgery was polypectomy by endoscopy.<br><br>This information should be obtained from the patient's pathology report. |
| Validation rules | |
| Related data element | |

## Additional information

| | |
|---|---|
| References | The Royal College of Pathologists, Dataset for Colorectal Cancer (2nd edition), September 2007. |

# Mismatch repair protein status

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Whether the tumour shows loss of mismatch repair proteins (MLH1, MSH2, MSH6 and PMS2) by immunohistochemistry. |
| Justification | A mutation in mismatch repair genes can cause an accumulation of DNA mutations that result in the initiation of cancer.<br>Mismatch repair deficient (MMRD) cancers occur either sporadically (~12%) or less commonly (~2%) because the individual suffers from hereditary non-polyposis colorectal cancer (HNPCC).<br>Tumours which show loss of MMR proteins by immunohistochemistry are almost always characterised by microsatellite instability (MSI), which is determined by analysis of tumour DNA.<br>Immunohistochemical (IHC) analysis of mismatch repair proteins is used to detect MMRD in colorectal cancer, with an absence of one or more of the mismatch repair proteins considered an abnormal result. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | Loss of protein expression |
| | 2 | Intact protein expression |
| | 3 | Equivocal (result of test inconclusive) |
| | 7 | Unknown (result not available) |
| | 8 | Not applicable (test not done) |
| | 9 | Not stated |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's pathology report. Use code 7 if test results are unknown. Use code 8 to show that lack of results is due to test not being performed.<br>Examination of expression of MLH1, MSH2, MSH6, and PMS2 are the most common immunohistochemistry testing methods used for suspected MSI cases. Any positive reaction in the nuclei of tumour cells is considered as intact expression (normal), and it is common for intact staining to be somewhat patchy. |
| Validation rules | |
| Related data element | Mismatch repair protein test type |

## Additional information

| | |
|---|---|
| References | Cancer Institute of NSW NSW Oncology Group Colorectal Minimum Data Set Extension Data Dictionary Draft Version 1 August 2007<br>College of American Pathologists, Protocol for the Examination of Specimens from Patients with Primary Carcinoma of the Colon and Rectum, 2009, p 28 |

# Mismatch repair enzyme (MMRE) test

## Identifying and definitional attributes

| | |
|---|---|
| Definition | A description of the immunohistochemistry test for mismatch repair enzyme performed.<br>Mmismatch repair genes are responsible for correcting errors in DNA when cells divide. In hereditary non-polyposis colorectal cancer (HNPCC), recent research has discovered mutations in a variety of genes that are a part of the DNA mismatch repair system, therefore predisposing families with HNPCC to the development of cancer.<br>DNA constantly has to produce new strands of itself. When this is done incorrectly, there are special genes involved in correcting the mistake. If this is not done, or not done properly, a tumor can grow in the place of normal cells. |
| Justification | A mutation in mismatch repair genes can cause an accumulation of DNA mutations that result in the initiation of cancer. Mismatch repair deficient (MMRD) cancers occur either sporadically (~12%) or less commonly (~2%) because the individual suffers from hereditary non-polyposis colorectal cancer (HNPCC).<br>Tumours which show loss of MMR enzymes (proteins) by immunohistochemistry are almost always characterised by microsatellite instability (MSI), which is determined by analysis of tumour DNA.<br>Immunohistochemical (IHC) analysis of mismatch repair enzymes (proteins) is used to detect MMRD in colorectal cancer, with an absence of one or more of the mismatch repair enzymes considered an abnormal result. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | Normal |
| | 2 | MSH-1 & PMS-2 absent |
| | 3 | MSH-2 & MSH-6 absent |
| | 4 | MSH-6 only absent with 3 other MMREs positive |
| | 5 | PMS-2 only absent with 3 other MMREs positive |
| | 6 | Test not done |
| | 9 | Not stated/inadequately described |
| Guide for use | This information should be obtained from the patient's pathology report.<br>Examination of expression of MLH1, MSH2, MSH6, and PMS2 are the most common immunohistochemistry testing methods used for | |

| | |
|---|---|
| | suspected MSI cases. Any positive reaction in the nuclei of tumour cells is considered as intact expression (normal), and it is common for intact staining to be somewhat patchy.<br>Code 1: All positive<br>Code 2: B-raf mutation testing or formal gene sequencing may be required to conclusively distinguish sporadic MSI-H CRC from MLH-1 deficient Lynch Syndrome CRC.<br>Code 4: positive MMREs are MSH-1, MSH-2 and PMS-2<br>Code 5: positive MMREs are MSH-1, MSH-2 and MSH-6 |
| Validation rules | |
| Related data element | Mismatch repair protein status |

## Additional information

| | |
|---|---|
| References | Cancer Institute of NSW NSW Oncology Group Colorectal Minimum Data Set Extension Data Dictionary Draft Version 1 August 2007<br>College of American Pathologists, Protocol for the Examination of Specimens from Patients with Primary Carcinoma of the Colon and Rectum, 2009, p 28 |

# Microsatellite instability status (MSI)

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Whether the tumour shows microsatellite instability.<br>Microsatellite instability is where the length of small sequences of DNA differs between tumor cells and normal cells; their appearance is a clue to the presence of abnormal DNA repair. |
| Justification | A mutation in mismatch repair genes can cause an accumulation of DNA mutations that result in the initiation of cancer. Mismatch repair deficient (MMRD) cancers occur either sporadically (~12%) or less commonly (~2%) because the individual suffers from hereditary non-polyposis colorectal cancer (HNPCC).<br>Tumours which show loss of MMR proteins by immunohistochemistry are almost always characterised by microsatellite instability (MSI), which is determined by analysis of tumour DNA. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | Microsatellite stable (MSS) |
| | 2 | Microsatellite instability – high frequency (MSI-H) |
| | 7 | Result unavailable |
| | 8 | Test not performed |
| | 9 | Not stated/unknown |

Guide for use

Code 1: Indicates that DNA repair processes are normal.

Code 2: It is now apparent that DNA microsatellite instability falls into a high category (MSI-H) in which at least 30% or more of the loci tested show instability and a low category (MSI-L). Only the MSI-H category shows distinctive clinical, pathological and molecular characteristics. These include:

- Proximal location
- Lower stage
- Lower frequency of distal spread
- Improved survival
- Increased frequency of cancer multiplicity
- Diploidy
- Poor or mucinous differentiation and tumour infiltrating

lymphocytes.

Between 9% and 16% of Colorectal Cancers are MSI-H. By contrast, MSI-L cancers are indistinguishable from microsatellite stable cancers.

Code 7: Test was performed but results are unavailable.

Code 8: Test not performed.

This information should be obtained from the patient's pathology report

Validation rules

Related data element

## Additional information

References

College of American Pathologists, Protocol for the Examination of Specimens from Patients with Primary Carcinoma of the Colon and Rectum(2009) p. 28

National Health and Medical Research Council (NHMRC). Microsatellite Instability, in: Clinical practice guidelines for the prevention, early detection and management of colorectal cancer (2005)

# K-RAS molecular markers

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Description: v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog (KRAS)<br>The K-RAS gene (also called KRAS or K-ras) is a type of oncogene, activating mutations of which play a key role in neoplastic progression, especially in colorectal, pancreatic, and lung cancer. It is also associated with melanoma, thyroid carcinoma, and acute myelogenous and lymphoblastic leukaemia.<br>The K-RAS gene makes the K-RAS protein, which is involved in cell signalling pathways, cell growth, and apoptosis (cell death). Agents that block the activity of the mutated K-RAS gene or its protein may reduce the growth of cancer.<br>K-RAS and B-RAF markers are measured by biological molecular testing of tumour samples.<br>K-RAS has a number of possible activating mutations, and these occur in exons 12, 13 or 61. Testing of these is done by a variety of methods including direct sequencing or another method such as SSCP/DGGE (electrophoresis gels). |
| Justification | This test determines resistance to EGFR antagonists. EGFR inhibitors such as monoclonal antibodies to the receptor appear to be inactive in those that have mutated K-RAS. Their role in patients with mutated B-RAF is unclear.<br>K-RAS mutation is an informative predictive factor in both sporadic and hereditary CRC. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Data domain | **Code** | **Description** |
| | 0 | Not done |
| | 1 | Wild type |
| | 2 | Mutated |

| | |
|---|---|
| Guide for use | This information is collected from the patient's pathology report within the medical record. |
| Validation rules | |
| Related data element | B-RAF molecular markers<br>Microsatellite instability (MSI) |

## Additional information

References

Mosby's Medical Dictionary, 8th edition. 2009, Elsevier.

National Cancer Institute, Dictionary of Cancer Terms, U.S. National Institute of Health [online] cancer.gov/dictionary/?CdrID=652256 (viewed 31 August 2010)

Zlobec et al, Combined analysis of specific KRAS mutation, BRAF and microsatellite instability identifies prognostic subgroups of sporadic and hereditary colorectal cancer. International Journal of Cancer, doi: 10.1002/ijc.25265

BioWWWnet [online] biowww.net/gene/gene-KRAS.html (accessed 31 August 2010)

# B-RAF molecular markers

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Description: v-raf murine sarcoma viral oncogene homolog B1 (BRAF)<br>The B-RAF gene makes a protein called B-RAF, which is involved in sending signals in cells and in cell growth. The gene causes a change in the B-RAF protein. This can increase the growth and spread of cancer cells.<br>This gene may be mutated (changed) in many types of cancer, including non-Hodgkin lymphoma, colorectal cancer, malignant melanoma, thyroid carcinoma, non-small cell lung carcinoma, and adenocarcinoma of lung.<br>A pseudogene, located on chromosome X, has been identified for this gene.<br>K-RAS and B-RAF markers are measured by biological molecular testing of tumour samples. |
| Justification | This test determines relative resistance to EGFR antagonists, especially monoclonal antibodied that target the EGFR (epidermal growth factor receptor). These appear to be less active in those who with mutated B-RAF. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Data domain

| Code | Description |
|---|---|
| 0 | Not done |
| 1 | Wild type (not mutated) |
| 2 | Mutated (an activating mutation) |

| | |
|---|---|
| Guide for use | This information is obtained from the patient's pathology report within the medical record. |
| Validation rules | |
| Related data element | K-RAS molecular markers |

## Additional information

References

Mosby's Medical Dictionary, 8th edition. 2009, Elsevier.

National Cancer Institute, Dictionary of Cancer Terms, U.S. National Institute of Health [online] cancer.gov/dictionary/?CdrID=652256 (accessed 31 August 2010)

Zlobec et al, Combined analysis of specific KRAS mutation, BRAF and microsatellite instability identifies prognostic subgroups of sporadic and hereditary colorectal cancer. International Journal of Cancer, doi: 10.1002/ijc.25265 (accessed 31 August 2010)

BioWWWnet [online] biowww.net/gene/gene-BRAF.html (accessed 31 August 2010)

# Micrometastatic status

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Micrometastasis is a small collection (between 200 or more) of cancer cells between 0.2 and 2 mm in diameter that have been shed from the original tumor and spread to another part of the body.<br>Isolated tumour cells (ITCs) are up to 0.2mm in diameter and less than 200 cells. They cannot be seen with any imaging tests such as mammogram, MRI, ultrasound, PET, or CT scans. These migrant cancer cells may group together and form a second tumour, which is so small that it can only be seen under a microscope.<br>Such deposits differ from isolated tumour cells not only in size, but also in that they show evidence of growth, for example glandular differentiation, distension of the sinus or a stromal desoplastic reaction.<br>During a sentinel lymph node biopsy, the lymph nodes that are removed will be tested for micrometastasis. |
| Justification | If a lymph node is found to contain micrometastasis, it is said to be positive, and this information affects the diagnosis, staging, and treatment. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Data domain | **Code** | **Description** |
| | 1 | Positive |
| | 2 | Negative |

| | |
|---|---|
| Guide for use | This information is obtained from the patient's pathology report within the medical record.<br>The AJCC TNM 7th edition suggests that cases where micrometastasis is the only form of metastatic spread, be classified as pN1(mi). |
| Validation rules | |
| Related data element | Generic (core) VCDS:<br>Primary tumour status – T stage<br>Regional lymph node metastasis – N stage<br>Distant metastasis status – M stage |

## Additional information

References

Breast cancer glossary [online] breastcancer.about.com/od/breastcancerglossary/g/micrometastasis.htm (accessed 31 August 2010)

The Cancer Council NSW. Minimum Dataset for Colorectal Cancer, 1st Edition, August 2007

Jass J, O'Brien M, Riddell R, Snover D: Recommendations for the reporting of surgically resected specimens of colorectal carcinoma. Virchows Archiv 2007;450:1-13.

# Tumour deposits (discontinuous extramural extension)

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Whether there are discrete foci of tumour away from the leading edge of the tumour showing no evidence of residual lymph node tissue but within the lymph drainage area of the primary cancer. |
| Justification | Tumour deposits may represent discontinuous spread, venous invasion with extravascular spread or totally replaced lymph nodes. Data is collected for the analysis of outcome by extent of cancer. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | Present |
| | 2 | Indeterminate |
| | 3 | Not identified |
| | 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's pathology report. |
| Validation rules | |
| Related data element | |

## Additional information

| | |
|---|---|
| References | AJCC Cancer Staging Manual, 7th Edition, 2009 p.151 |

# Number of adenomatous polyps present – colorectal

## Identifying and definitional attributes

| | |
|---|---|
| Definition | The total number of adenomatous polyps present in the resected specimen. |
| Justification | Collected to determine whether polyps are present concurrent to invasive cancer.<br>Familial adenomatous polyposis (FAP) is a rare inherited condition where large numbers of polyps may be present in the colon. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Total | |
| Field size maximum | 3 | |
| Format | N[NN] | |
| Value domain | Valid range: 0 to 100 | |
| | 0 | No polyps present |
| | 1 to 9 | Between one and nine polyps |
| | 10 - 29 | Between 10 and 29 polyps |
| | 30 - 49 | Between 30 and 49 polyps |
| | 50 - 99 | Between 50 and 99 polyps |
| | 100 | More than 100 polyps |
| | 888 | Unknown |
| | 999 | Not stated |
| Guide for use | This information should be obtained from the patient's pathology report or medical record. | |
| Validation rules | | |
| Related data element | Number of hyperplastic polyps present – colorectal<br>Type of polyps present – colorectal | |

## Additional information

References

# Number of hyperplastic polyps present – colorectal

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Number of hyperplastic polyps present in the resected specimen. |
| Justification | Collected to determine whether polyps are present concurrent to invasive cancer. Familial adenomatous polyposis (FAP) is a rare inherited condition where large numbers of polyps may be present in the colon. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Total | |
| Field size maximum | 3 | |
| Format | N[NN] | |
| | Valid range: 0 to 100 | |
| | 0 | No polyps present |
| | 1 to 9 | Between one and nine polyps |
| | 10 - 29 | Between 10 and 29 polyps |
| | 30 - 49 | Between 30 and 49 polyps |
| | 50 - 99 | Between 50 and 99 polyps |
| | 100 | More than 100 polyps |
| | 888 | Unknown |
| | 999 | Not stated |
| Guide for use | This information should be obtained from the patient's pathology report or medical record. | |
| Validation rules | | |
| Related data element | Type of polyps present – colorectal | |
| | Number of adenomatous polyps present - colorectal | |

## Additional information

References

# Type of polyps present – colorectal

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Histopathological type of polyps present in the resected specimen. |
| Justification | Collected to determine type of polyp present concurrent to invasive cancer. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | Tubular adenoma |
| | 2 | Tubulovillous adenoma |
| | 3 | Villous adenoma |
| | 4 | Serrated adenoma |
| | 5 | Mixed hyperplastic adenomatous polyp |
| | 6 | Hyperplastic polyp |
| | 8 | Other |
| | 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's pathology report.<br>More than one type of polyp can be present.<br>This data item can be collected multiple times for each patient. Report each type of polyp separately. For example, if a patient has a tubular adenoma and a villous adenoma, report 1 and 3 for that patient. |
| Validation rules | |
| Related data element | Number of adenomatous polyps present – colorectal<br>Number of hyperplastic polyps present – colorectal |

## Additional information

References

# Degree of fixity of primary tumour – rectal cancer

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Degree to which the tumour is fixed to the bowel wall or other organs as assessed by digital rectal examination. |
| Justification | The degree of fixity of the tumour determines the extent of surgical resection. Mobile tumours are generally completely removed irrespective of metastastic spread. Tethered tumours may necessitate removal of adjacent organs. Fixed tumours may mean that resection is not possible. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Data domain

| Code | Description |
|---|---|
| 1 | Mobile |
| 2 | Tethered |
| 3 | Fixed |
| 7 | Tumour not palpable |
| 8 | Not applicable – not rectal |
| 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | Code 1: As freely mobile as adjacent mucosa.<br>Code 2: Not fixed but limited mobility.<br>Code 3: Not able to move tumour<br><br>This information should be obtained from the patient's medical record. |
| Validation rules | |
| Related data element | |

## Additional information

References

Dorudi S., Steele, R.J.C., and McArdle C.S., Surgery for colorectal cancer, British Medical Bulletin 2002; 64:101–118.

National Health Services Scotland, Health and Social Services Data Dictionary, http://www.datadictionaryadmin.scot.nhs.uk/isddd/34117.html (viewed 14 December 2009)

# Adherence of primary tumour – colorectal cancer

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Whether the tumour is adherent to other organs. |
| Justification | Collected to determine the extent of the tumour resection required. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Value domain

| Code | Description |
|---|---|
| 1 | Adherent |
| 2 | Not adherent |
| 9 | Not stated |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's pathology report or medical record. |
| Validation rules | |
| Related data element | Site(s) of adherence of primary tumour – colorectal cancer |

## Additional information

References

# Site(s) of adherence of primary tumour – colorectal cancer

Identifying and definitional attributes

| | |
|---|---|
| Definition | Description of the sites and organs involved for adherence of the primary tumour. |
| Justification | Collected to determine the extent of the tumour resection required. Colorectal cancer adherence to adjacent intra-abdominal organs or structures is encountered in 15% of patients with colorectal cancer. Aggressive surgical procedures may be needed because of the direct extension of tumor into these adjacent structures. |

Representational attributes

| | |
|---|---|
| Data type | Code |
| Representation class | Number |
| Field size maximum | 1 |
| Format | N |

Value domain

| Code | Description |
|---|---|
| 1 | Uterus |
| 2 | Adnexa |
| 3 | Posterior vaginal wall |
| 4 | Bladder |
| 8 | Other site |
| 9 | Not stated/Unknown |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's medical record. |
| Validation rules | |
| Related data element | Adherence of primary tumour – colorectal cancer |
| Additional information | |
| References | Nelson et al. Guidelines 2000 for Colon and Rectal Cancer Surgery. Journal of the National Cancer Institute, Vol. 93, No. 8, 583-596, April 18, 2001, available http://jnci.oxfordjournals.org/cgi/content/full/93/8/583 (viewed 11 August 2010)<br>Sugarbaker PH, Corlew S. Influence of surgical techniques on survival in patients with colorectal cancer. Dis Colon Rectum 1982; 25:545–57 |

# Inflammatory infiltrate

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Whether there is an inflammatory infiltrate present. |
| Justification | The presence of a tumour inflammatory infiltrate is a predictor of a more favourable prognosis in colorectal cancer and may indicate the need for immunohistochemistry testing of mismatch repair proteins. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | Present |
| | 2 | Absent |
| | 9 | Not stated / inadequately described |
| Guide for use | This information should be obtained from the patient's pathology report. | |
| Validation rules | | |
| Related data element | Mismatch repair protein status | |

## Additional information

| | |
|---|---|
| References | Jass Jr, Love SB, Northover JM. A new prognostic classification of rectal cancer. Lancet. 1987;1(8545):1303-6<br>Roxburgh, C.S. and Salmond, J.M. and Horgan, P.G. and Oien, K.A. and McMillan, D.C. (2009) Tumour inflammatory infiltrate predicts survival following curative resection for node-negative colorectal cancer. European Journal of Cancer, 45 (12). pp. 2138-2145 |

# Treatment

## Method of surgery – colorectal cancer

### Identifying and definitional attributes

| | |
|---|---|
| Definition | The method of surgery performed. |
| Justification | Laparoscopic surgical techniques are becoming increasing utilised in modern surgery. It is thought that although the morbidity and mortality rates are similar to those seen for other surgical methods, the bed days of the patients in hospital and patient recovery time for laparoscopic surgery are reduced.<br>The collection of this data will also inform on practice patterns, which will help direct medical teaching and the need for expertise in specialised surgical techniques. |

### Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

Data domain

| Code | Description |
|---|---|
| 0 | No surgery |
| 1 | Open |
| 2 | Laparoscopic/laparoscopic assisted |
| 3 | Laparoscopic converted to open |
| 4 | Local excision |
| 8 | Other method of surgery |
| 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | Surgery method should be present in the patient's physical or electronic medical record. The theatre records or surgical report should be used to identify what method of surgery was used.<br><br>Code 4: Local excision includes transanal endoscopic microsurgery (TEMS) |
| Validation rules | Primary site = colon |
| Related data element | |

## Additional information

References

Cancer Institute of NSW NSW Oncology Group Colorectal Minimum Data Set Extension Data Dictionary Draft Version 1 August 2007

Bonjer H J, Laparoscopic surgery versus open surgery for colon cancer: short-term outcomes of a randomised trial, Lancet Oncology, 2005, 6:477-484

Schoetz, D.J., Jr., Evolving practice patterns in colon and rectal surgery. Journal of the American College of Surgeons, 2006. 203(3): p. 322-7.

Veldkamp, R., et al., Laparoscopic surgery versus open surgery for colon cancer: short-term outcomes of a randomised trial. Lancet Oncology, 2005. 6(7): p. 477-84.

# Total mesorectal excision

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Whether a total mesorectal excision was performed. |
| Justification | Collected to determine outcome by surgical procedure.<br>Complete excision of the mesorectum is associated with a low rate of local recurrence in rectal cancers where lymph node clearance of 5 cm beyond the distal margin of the tumour is achieved.<br>Total mesorectal excision is performed for cancer in the lower two-thirds of the rectum, either as part of a low anterior resection or an abdomino-perineal resection (APER). In tumours of the upper rectum, the mesorectum is divided at least 5 cm below the lower margin of the tumour. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representational class | Code |
| Field size maximum | 1 |
| Format | N |

| Value domain | **Code** | **Description** |
|---|---|---|
| | 1 | Yes |
| | 2 | No |
| | 8 | Not applicable – not rectal cancer |
| | 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's medical record. |
| Validation Rules | Primary site = rectum |
| Related data element | |

## Additional information

| | |
|---|---|
| References | The Colorectal Surgical Society of Australia and New Zealand Bi-National Colorectal Cancer Audit 2007-2008 Annual Report p 27<br>The Association of Coloproctology of Great Britain and Ireland Guidelines for the Management of Colorectal Cancer 3rd edition (2007) http://www.acpgbi.org.uk/assets/documents/COLO_guides.pdf (viewed 25 January 2010) |

# Total mesorectal excision result

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Description of the completeness of a total mesorectal excision. |
| Justification | Collected to determine outcome by surgical procedure.<br>Complete excision of the mesorectum is associated with a low rate of local recurrence in rectal cancers where lymph node clearance of 5 cm beyond the distal margin of the tumour is achieved.<br>Total mesorectal excision is performed for cancer in the lower two-thirds of the rectum, either as part of a low anterior resection or an abdomino-perineal resection (APER).<br>In tumours of the upper rectum, the mesorectum is divided at least 5 cm below the lower margin of the tumour. Perforation of the tumour during resection appears to be an important factor associated with local recurrence, independent of tumour stage or fixity. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representational class | Code |
| Field size maximum | 1 |
| Format | N |

| Value domain | **Code** | **Description** |
|---|---|---|
| | 1 | Parcel intact (complete) |
| | 2 | Parcel mostly intact (nearly complete) |
| | 3 | Parcel not intact (incomplete) |
| | 8 | Not applicable – not rectal cancer |
| | 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's medical record.<br>Code 1: Parcel intact or complete mesorectal excision or grade 3.<br>Code 2: Parcel mostly intact or nearly complete mesorectal excision or grade 2<br>Code 3: Parcel not intact or incomplete mesorectal excision or grade 1.<br>See RCPA Colorectal Cancer Structured Reporting Protocol for more information. |
| Validation Rules | Primary site = rectum |
| Related data element | |

## Additional information

References

RCPA Colorectal Cancer Structured Reporting Protocol, 1st Ed, 2010 http://www.rcpa.edu.au/Publications/StructuredReporting/CancerProtocols.htm (viewed 3 March 2010)

The Colorectal Surgical Society of Australia and New Zealand Bi-National Colorectal Cancer Audit 2007-2008 Annual Report p 27

The Association of Coloproctology of Great Britain and Ireland Guidelines for the Management of Colorectal Cancer 3rd edition (2007) http://www.acpgbi.org.uk/assets/documents/COLO_guides.pdf (viewed 25 January 2010)

# Anastomosis method

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Description of the surgical method used for anastomosis. |
| Justification | Collected to determine outcome by surgical procedure.<br>Anastomotic dehiscence is a major source of operative morbidity and mortality after resection for colorectal cancer. The rate varies greatly among surgeons and is more common after anterior resection of the rectum than after colonic resection. Although studies have not shown any advantage of stapled over hand-sewn anastomosis, stapling techniques have assisted with the ability to perform ultra-low anastomosis after anterior resection. |

## Representational attributes

| | |
|---|---|
| Data type | Number |
| Representation class | Code |
| Field size maximum | 1 |
| Format | N |

| Value domain | **Code** | **Description** |
|---|---|---|
| | 1 | Handsewn |
| | 2 | Staple |
| | 8 | Not applicable – no anastomosis |
| | 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's medical record. |
| Validation rules | |
| Related data element | Return to theatre - Indication |

**Additional information**

| | |
|---|---|
| References | The Colorectal Surgical Society of Australia and New Zealand Bi-National Colorectal Cancer Audit 2007-2008 Annual Report p 27<br>The Association of Coloproctology of Great Britain and Ireland Guidelines for the Management of Colorectal Cancer 3rd edition (2007) http://www.acpgbi.org.uk/assets/documents/COLO_guides.pdf (viewed 25 January 2010) |

# Anastomosis type

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Description of the type of anastomosis performed. |
| Justification | Collected to determine outcome by surgical procedure. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | End-to-end |
| | 2 | End-to-side |
| | 3 | Side-to-side |
| | 8 | Not applicable – no anastomosis |
| | 9 | Not stated/inadequately described |

| | |
|---|---|
| Guide for use | This information should be obtained from the patient's medical record. |
| Validation rules | |
| Related data element | |

## Additional information

| | |
|---|---|
| References | The Colorectal Surgical Society of Australia and New Zealand Bi-National Colorectal Cancer Audit 2007-2008 Annual Report p 27 |

# Return to theatre – Date

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Date on which the patient returned to theatre to treat complication(s) of initial treatment. |
| Justification | Collected to determine incidence and timelines of complications requiring surgical intervention. |

## Representational attributes

| | |
|---|---|
| Data type | Date/Time |
| Representation class | Date |
| Field size maximum | 8 |
| Format | DDMMYYYY |
| Value domain | Valid date |

| | |
|---|---|
| Guide for use | This information should be obtained from the operation report or theatre records in the patient's medical record. |
| Validation rules | |
| Related data element | Return to theatre - Indication |

## Additional information

References

# Return to theatre - Indication(s)

## Identifying and definitional attributes

| | |
|---|---|
| Definition | Indication for patient’s return to theatre for procedure(s) to treat complication(s) of initial treatment, as represented by a code. |
| Justification | Collected to determine incidence and timelines of complications requiring surgical intervention. |

## Representational attributes

| | | |
|---|---|---|
| Data type | Number | |
| Representation class | Code | |
| Field size maximum | 1 | |
| Format | N | |
| Value domain | **Code** | **Description** |
| | 1 | Anastomotic bleeding |
| | 2 | Anastomotic leak |
| | 3 | Bowel Obstruction |
| | 4 | Drainage of wound haematoma |
| | 5 | Drainage of pelvic collection |
| | 6 | Stoma complication |
| | 7 | Wound dehiscence |
| | 8 | Surgical puncture or laceration |
| | 9 | Other |
| | 99 | Not stated / inadequately described |
| Guide for use | Code 8: for example, ureteric injury or organ laceration.<br>This information should be obtained from the patient's medical record. | |
| Validation rules | | |
| Related data element | Return to theatre - Date | |

## Additional information

References

# Abbreviations

| | |
|---|---|
| ACHI | Australian Classification of Health Interventions |
| ADH | Atypical Ductal Hyperplasia |
| AIHW | Australian Institute of Health and Welfare |
| ALH | Atypical Lobular Hyperplasia |
| ASERNIP-S | Australian Safety & Efficacy Register of New Interventional Procedures -Surgical |
| CCV | Cancer Council Victoria |
| CDS | Consensus Data Set |
| CT | Computerised Tomography |
| DCIS | Ductal Carcinoma In Situ |
| ER | Oestrogen Receptor |
| FBE | Full Blood Examination |
| FNAC | Fine Needle Aspiration Cytology |
| GP | General Practitioner |
| ICD | International Classification Of Diseases |
| ICD-O | International Classification Of Diseases For Oncology |
| ICRU | International Commission On Radiation Units |
| ICS | Integrated Cancer Services |
| ISH | In Situ Hybridization |
| LCIS | Lobular Carcinoma In Situ |
| LNB | Lymph node biopsy |
| METeOR | Metadata Online Registry |
| MRI | Magnetic Resonance Imaging |
| NBCC | National Breast Cancer Centre |
| NBOCC | National Breast And Ovarian Cancer Centre |
| NHDD | National Health Data Dictionary |
| PD | Progressive Disease |
| PET | Positron Emission Tomography |
| PR | Progesterone Receptor |
| RACS | Royal Australian College of Surgeons |
| SNB | Sentinel node biopsy |
| UICC | International Union Against Cancer |
| US | Ultrasound |
| VCDS | Victorian Consensus Data Set |
| VCOG | Victorian Cooperative Oncology Group |
| VCR | Victorian Cancer Registry |
| WHO | World Health Organization |

# References

American Joint Committee on Cancer (AJCC) Cancer Staging Manual 7th Edition (2010). Available online at cancerstaging.org/products/ajccproducts.html

Australian Institute of Health and Welfare. METeOR (Metadata Online Registry). Primary Site definition. Available online at meteor.aihw.gov.au/content/index.phtml/itemId/370039

Royal College of Pathologists of Australasia (RCPA). Colorectal Cancer Structured Reporting Protocol. 1st Edition 2010. Available online at rcpa.edu.au/Publications/StructuredReporting/CancerProtocols.htm

National Health and Medical Research Council (NHMRC). Clinical practice guidelines for the prevention, early detection and management of colorectal cancer (2005).

The Cancer Council New South Wales. Minimum Dataset for Colorectal Cancer. 1st Edition, August 2007. Available online at cancerinstitute.org.au/cancer_inst/publications/pdfs/datadictionaries/2007-08-29_GuidelinesforColorectalCancerReportingAug07.pdf

NSW Oncology Group. Colorectal Minimum Data Set Extension. Draft: Version 1.0. August 2007.

Association of Coloproctology of Great Britain & Ireland data-set for national bowel cancer audit (revision of dataset version 3). Available nbocap.org.uk/datasets/ACPGBI%20dataset%20v3.pdf

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