Bowel Cancer Quality Performance Indicator Specifications

BCQI16 Radiotherapy

2019

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| **Version number** | **Purpose/change** | **Date** |
| 1 | Published | 04/03/2019 |

Citation: Ministry of Health. 2019. *Bowel Cancer Quality Performance Indicator Specifications: BCQI16 Radiotherapy*. Wellington: Ministry of Health.

Published in February 2019 by the Ministry of Health  
PO Box 5013, Wellington 6140, New Zealand

ISBN 978-1-98-856858-4 (online)  
HP 7044



This document is available at health.govt.nz

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# Introduction

This information is provided to make it easier for analysts to replicate our calculations. For each measure we have provided supporting information, a table and a flow diagram.

This document provides specifications for the following measure.

|  |  |  |
| --- | --- | --- |
| **Measure** | **Measure abbreviation** | **Measure type** |
| Proportion of people with rectal cancer with:  a) no radiotherapy (surgery alone)  b) short course radiotherapy (SCRT) pre‑operative  c) long course radiotherapy (LCRT) pre‑operative | a) noradio  b) preopscrt  c) preoplcrt | Quality improvement |

Notes

This indicator includes:

* people with metastatic disease
* people having short course radiotherapy and chemotherapy.

### Sources of data for indicators

This document refers to the following national data sources.

* **New Zealand Cancer Registry (NZCR)** – a population-based register of all primary malignant diseases diagnosed in New Zealand, excluding squamous and basal cell skin cancers
* **National Minimum Dataset (NMDS)** – a collection of public and private hospital discharge information, including coded clinical data for inpatients and day patients
* **National Non-Admitted Patients Collection (NNPAC)** – includes event-based purchase units that relate to medical and surgical outpatient events and emergency department events
* **Radiation Oncology Collection (ROC)** – a collection of radiation oncology treatment data, including both public and private providers.

More information on these data sources can be found on the Ministry of Health’s website: www.health.govt.nz.

# BCQI16 Radiotherapy

Proportion of people with rectal cancer receiving surgery alone, or preoperative short or long course radiotherapy.

## Measure type: quality improvement

### Measure items

| **Dataset** | **Data item** | **Description** |
| --- | --- | --- |
| NZCR | Site | Primary organ of origin of the cancer |
| NZCR | Sex | Sex of patient |
| NZCR | Age at diagnosis | Age of patient at diagnosis |
| NZCR | Morphology | Microscopic or cellular anatomy of the cancer |
| NZCR | Behaviour code | Neoplastic behaviour of the cancer |
| NZCR | Date of initial diagnosis | Date person first diagnosed with bowel cancer |
| NZCR | Basis | Basis of diagnosis |
| NZCR | Multiple tumour flags | Person diagnosed with more than one tumour |
| NZCR | Registration status code | Status of registration processing |
| NMDS | DHB name | DHB of service for patient |
| NMDS | Health speciality | Type of inpatient admission |
| NMDS | Event end date | Date of admission |
| NMDS | Surgical procedure | Surgical procedure of primary site |
| NMDS | Date of surgery | Date of most definitive surgical procedure of the primary site |
| ROC | Start date | Date of treatment start |
| ROC | Intent of treatment | Intent of treatment indicator |
| ROC | Treatment occurrence | Treatment occurrence |
| ROC | Sessions | Number of sessions of radiotherapy |
| NNPAC | Purchase code | Type of outpatient attendance |
| NNPAC | Date and time of service | Date and time of service |

## Case eligibility criteria (denominator)

| **Diagram reference** | **Assessment** | **Item** | **Codes** |
| --- | --- | --- | --- |
| 1 | First or only diagnosis of malignant neoplasm | Date of diagnosis | First diagnosis of bowel cancer (C18, C19 or C20) |
| 2 | Primary site – rectum | Primary site | Rectum C20 |
| 3 | Exclude manually censored case | Exclusion | Patients with NETs, gastrointestinal stromal sarcoma (GISTs), lymphomas, squamous cell carcinomas, neuroendocrine carcinomas and melanomas  Morphology codes 8240, 8249, 8246, 8070, 8720, 8013, 8041, 8244 and 8936  Patients diagnosed following death certificate only (basis = 0)  Registration codes not R\_C or R\_R  Non-incident cancer (exclude people with multiple tumour flags = yes)  Patient domiciled outside of New Zealand (DHB\_code = 999) |
| 4 | Male or female | Sex | M or F |
| 5 | Adult patient 18 years and older at diagnosis | Age at diagnosis | 18 years and older |
| 6 | Invasive tumours | Behaviour code | 3 |
| 7 | Diagnosis date | Date of initial diagnosis | 2013–16 |
| 8 | Surgical procedure | Surgical procedure of the primary site | Includes ACHI (8th edition) procedure codes (see description below):  3200000, 3200001, 3200300, 3200301, 3200400, 3200401, 3200500, 3200501, 3200600, 3200601, 3200900, 3201200, 3201500, 3202400, 3202500, 3202600, 3202800, 3203000, 3203900, 3205100, 3205101, 3206000, 3209900, 3211200, 9220800  Only include these procedures between 50 days prior and 365 days after diagnosis |

## Numerator criteria

| **Diagram reference** | **Assessment** | **Item** | **Codes** |
| --- | --- | --- | --- |
| 9a | Numerator a): Number of people who receive no radiotherapy treatment | noradio | ROC dataset  Include when there is no record of a first curative treatment for colorectal cancer prior to surgery for the patient1  NNPAC data (identifies if patient’s treatment was publicly funded)  Include patients who had no record of radiotherapy treatment starting in the period 20 weeks before or 16 weeks after first date of definitive surgery |
| 9b | Numerator b): Number of people who receive preoperative short course radiotherapy treatment | preopscrt | ROC dataset  Include patients with first curative treatment for colorectal cancer1 AND 5 sessions of radiotherapy AND radiotherapy treatment was received up to 140 days before definitive surgery for rectal cancer  NNPAC data (identifies if patient’s treatment was publicly funded)  Include patients with:   * PU code – M50025 Oncology – Radiotherapy, External Beam Megavoltage (linac) with 5 or 6 treatments (exclude patients who have more than 6 treatments) * treated up to 20 weeks before first definitive surgery date to account for post-radiotherapy wait for surgery |
| 9c | Numerator c): Number of people who receive preoperative long course radiotherapy treatment | preoplcrt | ROC dataset  Include patients with first curative treatment for colorectal cancer1 AND 20 or more sessions of radiotherapy AND radiotherapy was received up to 140 days before definitive surgery for rectal cancer  NNPAC data (identifies if patient’s treatment was publicly funded)  Include patients with:   * PU code – M50025 Oncology – Radiotherapy, External Beam Megavoltage (linac) with 20 or more treatments * treated up to 20 weeks before first definitive surgery date to account for post-radiotherapy wait for surgery |

1 fre.intent\_of\_treatment\_ind in ('1', 'X') and fre.treatment\_occurrence = "First Treatment" and substr(fre.clinical\_code\_icd10\_am8, 1, 3) in ("C18", "C19", "C20", "C21"). Note C18, C19 and C21 included as text in site\_of\_treatment field indicates pelvis or rectum.

## Morphology codes (ICD-O 3rd edition) for exclusion

|  |  |
| --- | --- |
| **Clinical code** | **Clinical code description** |
| 8013 | Large cell neuroendocrine carcinoma |
| 8041 | Small cell carcinoma, not otherwise specified |
| 8070 | Squamous cell carcinoma, not otherwise specified |
| 8240 | Carcinoid tumour, not otherwise specified |
| 8244 | Mixed adenoneuroendocrine carcinoma |
| 8246 | Neuroendocrine carcinoma, not otherwise specified |
| 8249 | Atypical carcinoid tumour |
| 8720 | Malignant melanoma, not otherwise specified |
| 8936 | Gastrointestinal stromal sarcoma |

## ACHI 8th edition procedure codes for surgery inclusion

|  |  |  |
| --- | --- | --- |
| **Code** | **Block short description** | **Clinical code description** |
| 3200000 | Colectomy | Limited excision of large intestine with formation of stoma |
| 3200001 | Colectomy | Right hemicolectomy with formation of stoma |
| 3200300 | Colectomy | Limited excision of large intestine with anastomosis |
| 3200301 | Colectomy | Right hemicolectomy with anastomosis |
| 3200400 | Colectomy | Subtotal colectomy with formation of stoma |
| 3200401 | Colectomy | Extended right hemicolectomy with formation of stoma |
| 3200500 | Colectomy | Subtotal colectomy with anastomosis |
| 3200501 | Colectomy | Extended right hemicolectomy with anastomosis |
| 3200600 | Colectomy | Left hemicolectomy with anastomosis |
| 3200601 | Colectomy | Left hemicolectomy with formation of stoma |
| 3200900 | Colectomy | Total colectomy with ileostomy |
| 3201200 | Colectomy | Total colectomy with ileorectal anastomosis |
| 3201500 | Total proctocolectomy | Total proctocolectomy with ileostomy |
| 3202400 | Anterior resection of rectum | High anterior resection of rectum |
| 3202500 | Anterior resection of rectum | Low anterior resection of rectum |
| 3202600 | Anterior resection of rectum | Ultra low anterior resection of rectum |
| 3202800 | Anterior resection of rectum | Ultra low anterior resection of rectum with hand sutured coloanal anastomosis |
| 3203000 | Rectosigmoidectomy or proctectomy | Rectosigmoidectomy with formation of stoma |
| 3203900 | Rectosigmoidectomy or proctectomy | Abdominoperineal proctectomy |
| 3205100 | Total proctocolectomy | Total proctocolectomy with ileo-anal anastomosis |
| 3205101 | Total proctocolectomy | Total proctocolectomy with ileo-anal anastomosis and formation of temporary ileostomy |
| 3206000 | Rectosigmoidectomy or proctectomy | Restorative proctectomy |
| 3209900 | Excision of lesion or tissue of rectum or anus | Per anal submucosal excision of lesion or tissue of rectum |
| 3211200 | Rectosigmoidectomy or proctectomy | Perineal rectosigmoidectomy |
| 9220800 | Anterior resection of rectum | Anterior resection of rectum, level unspecified |

