

Bowel Cancer Quality Performance Indicator Specifications

BCQI16 Radiotherapy

2019

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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) noradio	Quality improvement
a) no radiotherapy (surgery alone)	b) preopscrt	
b) short course radiotherapy (SCRT) pre-operative	c) preoplcrct	
c) long course radiotherapy (LCRT) pre-operative		

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	<p>Patients with NETs, gastrointestinal stromal sarcoma (GISTs), lymphomas, squamous cell carcinomas, neuroendocrine carcinomas and melanomas</p> <p>Morphology codes 8240, 8249, 8246, 8070, 8720, 8013, 8041, 8244 and 8936</p> <p>Patients diagnosed following death certificate only (basis = 0)</p> <p>Registration codes not R_C or R_R</p> <p>Non-incident cancer (exclude people with multiple tumour flags = yes)</p> <p>Patient domiciled outside of New Zealand (DHB_code = 999)</p>
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	<p>Includes ACHI (8th edition) procedure codes (see description below):</p> <p>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</p> <p>Only include these procedures between 50 days prior and 365 days after diagnosis</p>

Numerator criteria

Diagram reference	Assessment	Item	Codes
9a	Numerator a): Number of people who receive no radiotherapy treatment	noradio	<p>ROC dataset</p> <p>Include when there is no record of a first curative treatment for colorectal cancer prior to surgery for the patient¹</p> <p>NNPAC data (identifies if patient's treatment was publicly funded)</p> <p>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</p>
9b	Numerator b): Number of people who receive preoperative short course radiotherapy treatment	preops crt	<p>ROC dataset</p> <p>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</p> <p>NNPAC data (identifies if patient's treatment was publicly funded)</p> <p>Include patients with:</p> <ul style="list-style-type: none"> • 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	preopl crt	<p>ROC dataset</p> <p>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</p> <p>NNPAC data (identifies if patient's treatment was publicly funded)</p> <p>Include patients with:</p> <ul style="list-style-type: none"> • 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

