Lung Cancer Quality Performance Indicator Specifications

LCQI09 Treatment Mortality

2021

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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 lung cancer who died within 30 days of treatment with curative intent (surgery, systemic anti-cancer therapy, chemoradiation, radiotherapy), by type (NSCLC/SCLC). | death\_30 | Quality improvement |
| Proportion of people with lung cancer who died within 30 days of treatment with curative intent (surgery, systemic anti-cancer therapy, chemoradiation, radiotherapy), by type (NSCLC/SCLC). | death\_90 | Quality improvement |

# Sources of data for indicator

* 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)[[1]](#footnote-1) – 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
* Pharmaceutical Collection (PHARMS) – a data warehouse that supports the management of pharmaceutical subsidies, and contains claim and payment information from pharmacists for subsidised dispensings
* Radiation Oncology Collection (ROC) – a collection of radiation oncology treatment data, including both public and private providers.
* Mortality Collection (MORT) – classifies the underlying cause of death for all deaths registered in New Zealand

More information on these data sources can be found on the Ministry of Health’s website: [www.health.govt.nz](http://www.health.govt.nz).

# LCQI09 Treatment mortality

Proportion of people with lung cancer who died within 30 or 90 days of treatment with curative intent (surgery, systemic anti-cancer therapy, radiation therapy), by type (NSCLC/SCLC).

**Measure type:** quality improvement

## Measure items

| **Dataset** | **Data item** | **Description** |
| --- | --- | --- |
| NZCR | NHI | Patient identifier |
| NZCR | Cancer event ID | Cancer registration identifier |
| NZCR | Date of initial diagnosis | Date person first diagnosed with lung cancer |
| NZCR | Diagnosis year | Calendar year of first diagnosis |
| NZCR | Site | Primary organ of origin of the cancer (ICD-10-AM 8th Edition code) |
| NZCR | Morphology code | 4-digit code (ICD-O-3) for microscopic or cellular anatomy of the cancer |
| NZCR | Basis | Basis of diagnosis |
| NZCR | DHB of domicile | DHB code for domicile of patient at diagnosis |
| NZCR | DHB | DHB name based on domicile of patient at diagnosis |
| NZCR | Age at diagnosis | Age of patient at diagnosis in years |
| NZCR | Prioritised ethnicity | Ethnic group derived from patient’s ethnicity |
| NZCR | Sex | Sex of patient |
| NZCR | Deprivation quintile | NZDep2013 index of social deprivation quintile based on patient’s domicile |
| NZCR | Date of death | Date patient died |
| NZCR | TNM\_T | Stage at diagnosis – tumour |
| NZCR | TNM\_N | Stage at diagnosis – node |
| NZCR | TNM\_M | Stage at diagnosis – metastases |
| NZCR | Behaviour code | Neoplastic behaviour of the cancer |
| NZCR | Multiple tumour flags | Person diagnosed with more than one tumour |
| NZCR | Registration status code | Status of registration processing |
| NMDS | Surgical procedure code | ICD10 procedure code |
| NMDS | Surgical procedure | Description of surgical procedure |
| NMDS | Date of curative surgery | Date of procedure considered as curative treatment of the primary site |
| NMDS | DHB of service | DHB of service for patient |
| ROC | Start date | Date of treatment start |
| ROC | End date | Date of treatment end |
| ROC | Treatment occurrence | Treatment occurrence |
| ROC | Intent of treatment | Intent of treatment indicator |
| ROC | Fractionation | Planned fractions |
| ROC | Dose | Dosage used |
| ROC | Facility | Facility of service |
| PHARMS | Date of dispensing | Date of dispensing of chemotherapy drugs |
| PHARMS | Chemical ID | Identifier for drug |
| PHARMS | Chemical name | Name of chemotherapy drug |

## Case eligibility criteria (denominator)

| **Diagram reference** | **Assessment** | **Item** | **Codes** |
| --- | --- | --- | --- |
| 1 | First or only diagnosis of malignant neoplasm | Primary site | First diagnosis of lung cancer (trachea C33 or bronchus C34) |
| 2 | Exclude manually censored case | Exclusion | Registration codes not R\_C (registered complete) or R\_R (registered)  No incident cancer (exclude people with multiple tumour flags = yes)  People diagnosed following death certificate only (basis = 0)  People domiciled outside of New Zealand (DHB\_code = 999)  Cancer morphologies of melanoma, sarcoma and other unusual morphologies (codes 8333, 8720, 8772, 8800, 8801, 8803, 8805, 8815, 8890, 9040, 9041, 9133) |
| 3 | Diagnosis date | Date of initial diagnosis | 2015–18 |
| 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 | Radical treatment | Treatment | 7.1 **Surgery as treatment**  a. Include ACHI (8th edition) procedure codes: 3844000, 3844001, 3843800, 9016900, 3843801, 3844100, 3844101, 3843802  AND  b. surgery date between -30 and 183 days from diagnosis date  7.2 **SABR as treatment**  From ROC dataset, include patients with:  a. treatment\_occurrence = “First Treatment”  b. clinical\_code\_icd10\_am8 like (“C33%”, “C34%”)  c. Treatment intent = 1 (curative)  d. Dose between 48 GY and 60 GY  e. Fractionation between 3# and 8#  f. Treatment start date between -30 and 275 days from diagnosis date  7.3 **Concurrent chemoradiation**  From ROC dataset, include patients with:  a. treatment\_occurrence = “First Treatment”  b. clinical\_code\_icd10\_am8 like (“C33%”, “C34%”)  c. Treatment start date between -30 and 275 days from diagnosis date  AND  From PHARMS dataset, include patients with:  d. Drugs with chemical ID 3826, 3825, 2433, 3847, 3811, 3815, 3834, 3842, 3816, 4088, 3966, 3916, 1369, 3813, 2319, 2320  AND  e. PHARMS date of dispensing between ROC start date and ROC end date |

## Numerator criteria

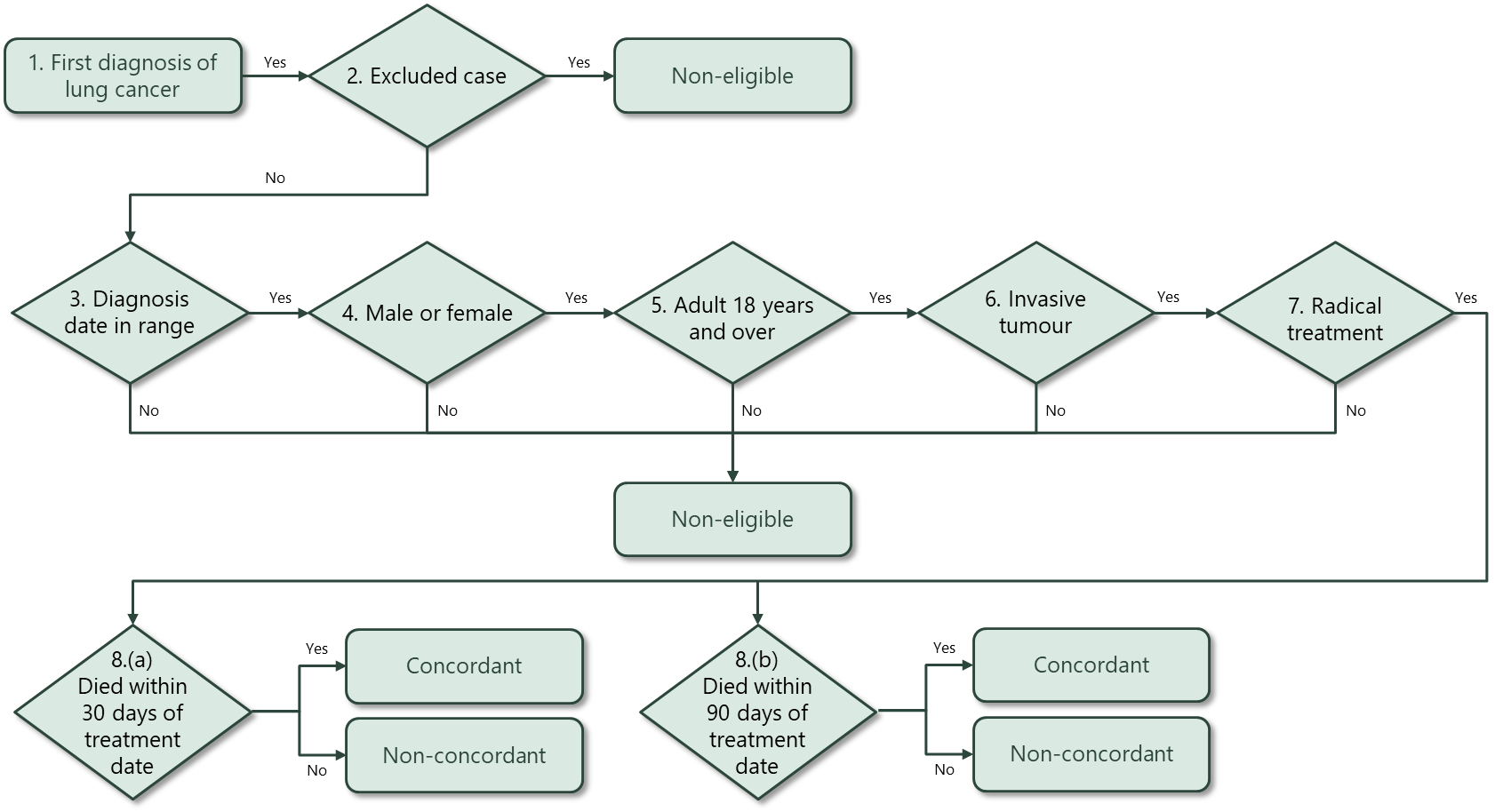
|  |  |  |  |
| --- | --- | --- | --- |
| **Diagram reference** | **Assessment** | **Item** | **Codes** |
| 8 | Number of people with lung cancer who died within 30 days of treatment with radical intent (surgery, SABR, concurrent chemoradiation) | death\_30 | Patient died within 30 days of treatment. If more than 1 treatment, date of first treatment is used. |
|  | Number of people with lung cancer who died within 90 days of treatment with curative intent (surgery, SABR, concurrent chemoradiation) | death\_90 | Patient died within 90 days of treatment. If more than 1 treatment, date of first treatment is used. |

## Curative resection ACHI procedure codes

|  |  |  |
| --- | --- | --- |
| **Clinical code** | **Clinical code description** | **Block description** |
| 3844000 | Wedge resection of lung | Partial resection of lung |
| 3844001 | Radical wedge resection of lung | Partial resection of lung |
| 3843800 | Segmental resection of lung | Partial resection of lung |
| 9016900 | Endoscopic wedge resection of lung | Partial resection of lung |
| 3843801 | Lobectomy of lung | Lobectomy of lung |
| 3844100 | Radical lobectomy | Lobectomy of lung |
| 3844101 | Radical pneumonectomy | Pneumonectomy |
| 3843802 | Pneumonectomy | Pneumonectomy |

## Chemotherapy drug codes and names

|  |  |
| --- | --- |
| **Chemical ID** | **Chemical name** |
| 3826 | Cisplatin |
| 3825 | Carboplatin |
| 2433 | Etoposide |
| 3847 | Etoposide phosphate |
| 3811 | Irinotecan hydrochloride |
| 3815 | Paclitaxel |
| 3834 | Docetaxel |
| 3842 | Gemcitabine hydrochloride |
| 3816 | Vinorelbine |
| 4088 | Pemetrexed |
| 3966 | Gefitinib |
| 3916 | Erlotinib hydrochloride |
| 1369 | Cyclophosphamide |
| 3813 | Doxorubicin |
| 2319 | Vinblastine sulphate |
| 2320 | Vincristine sulphate |



1. Hospital events in NMDS are coded using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) for diagnoses and the Australian Classification of Health Interventions (ACHI) for procedures. Both ICD-10-AM and ACHI are from the Independent Hospital Pricing Authority, Australia. [↑](#footnote-ref-1)