

# 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)<sup>1</sup> – 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.

<sup>1</sup> 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.

- 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 8 <sup>th</sup> 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

<b>Dataset</b>	<b>Data item</b>	<b>Description</b>
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



Diagram reference	Assessment	Item	Codes
7	Radical treatment	Treatment	<p><b>7.1 Surgery as treatment</b></p> <p>a. Include ACHI (8th edition) procedure codes: 3844000, 3844001, 3843800, 9016900, 3843801, 3844100, 3844101, 3843802</p> <p>AND</p> <p>b. surgery date between -30 and 183 days from diagnosis date</p> <p><b>7.2 SABR as treatment</b></p> <p>From ROC dataset, include patients with:</p> <p>a. treatment_occurrence = "First Treatment"</p> <p>b. clinical_code_icd10_am8 like ("C33%", "C34%")</p> <p>c. Treatment intent = 1 (curative)</p> <p>d. Dose between 48 GY and 60 GY</p> <p>e. Fractionation between 3# and 8#</p> <p>f. Treatment start date between -30 and 275 days from diagnosis date</p> <p><b>7.3 Concurrent chemoradiation</b></p> <p>From ROC dataset, include patients with:</p> <p>a. treatment_occurrence = "First Treatment"</p> <p>b. clinical_code_icd10_am8 like ("C33%", "C34%")</p> <p>c. Treatment start date between -30 and 275 days from diagnosis date</p> <p>AND</p> <p>From PHARMS dataset, include patients with:</p> <p>d. Drugs with chemical ID 3826, 3825, 2433, 3847, 3811, 3815, 3834, 3842, 3816, 4088, 3966, 3916, 1369, 3813, 2319, 2320</p> <p>AND</p> <p>e. PHARMS date of dispensing between ROC start date and ROC end date</p>

# 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

