WA Cancer Registry Data Dictionary

January 2024

(Version 1.2)

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VERSION	DATE	AUTHOR	COMMENTS
1.0	May 2023	IPG – Data Management team	Original Masterfile – Data Dictionary
1.1	October 2023	IPG – Data Management team	Fields added to support mortality statistics, updates to allowed values, format and guide for use across most fields.
1.2	January 2024	IPG – Coding Team	Minor rewording to multiple primary rules and selected variables.

Contents

Abbreviations

ABF	Activity Based Funding
AIHW	Australian Institute of Health and Welfare
CanIS	Cancer Registry Information System
DIS	Data & Information Systems
DOH	Department of Health
NOS	Not Otherwise Specified
WA	Western Australia
webPAS	Web-based Patient Administration System
MO	Medical Officer (Canis user access role)
WACR	WA Cancer Registry

Purpose

The WA Cancer Registry (WACR) Data Dictionary is a reference for all users who currently use or are planning to use information collected in the WACR. The variables in this data dictionary represent all fields currently available for analysis and reporting in the WA Department of Health, Data and Information Systems data warehouse.

This Data Dictionary is intended to:

- provide working definitions of all data elements included in the data set; and

- provide an up-to-date reference to ensure that an understanding of the data can be used in a consistent and timely fashion; and

- provide some history on the collection's development

The WACR Data Dictionary provides information about each of the data elements and offers context to all the variables when interpreting the dataset. It contains names of measured variables, their data types and formats, text descriptions, and detailed guide for use.

The fields in this reference list should not be considered a comprehensive list of all information collected in the WACR. There are additional fields collected, such as name aliases, multiple addresses, and multiple client identifiers, which are too complex and have low demand to include in the standard output files but may be available through custom extracts.

Please contact the WA Cancer Registry for more details and any questions related to this document on:

wacanreg@health.wa.gov.au

Background

The WACR is a population-based registry-derived data collection. Since 1982 the Western Australian Cancer Registry has collected cancer data for use in the planning of health care services and the support of cancer-related research at local, national, and international levels.

The WACR data supports the monitoring of cancer incidence and mortality counts, trends, and outcomes in the WA population and sub-populations. The WACR data also supports cancer research, prevention, and control efforts by identifying gaps, needs, and priorities.

Cancer, which has substantial social, economic, and personal impact on individuals, families, and the community, is a major cause of illness in Australia. Cancer and other neoplasms were identified as leading contributors to the burden of disease in Australia in 2018, constituting 18% of the overall burden of disease. It was ranked third in terms of Australia's estimated total health system expenditure on diseases in 2015–16.

Legislation

The WACR operates under the *Health (Western Australian Cancer Register) Regulations 2011*. The legislation describes the definition of notifiable cancers; health practitioners who

must notify the WACR; and details what must be notified under section 10(4). The information is maintained in the register and used to:

- monitor the number of cases of cancer in Western Australia

- plan, monitor and evaluate services for the control of cancer and the care of cancer patients in Western Australia

- compile and publish general or statistical information relating to cancer

- conduct research into the causes, prevention, screening, and treatment of cancer.

Information may be disclosed under section 12, for the purpose of:

- research approved in accordance with the guidelines for the conduct of medical research involving humans issued in compliance with the *National Health and Medical Research Council Act 1992 (Commonwealth) section 10*

- to the Australian Institute of Health and Welfare if the Chief Health Officer is satisfied that the information is to be used solely for a purpose mentioned in regulation 10(4)

- in a case of urgency, to assist in the diagnosis, staging or treatment of the person to whom the information relates, if it is not reasonably practical to obtain the written consent of that person to the disclosure

- to a corresponding officer in another State or a Territory, if the Chief Health Officer is satisfied that the usual place of residence of the person to whom the information relates is or was in that State or Territory

- other than identifying information, for a purpose mentioned in regulation 10(4)

Governance

The WACR is managed within the Information and Performance Governance Directorate of the Purchasing and System Performance Division of the Western Australian Department of Health under the custodianship of the WA Cancer Registry Principal Data Management Officer (PDMO), on behalf of the Chief Health Officer (WA Cancer Registry Steward) under an Instrument of Delegation. The PDMO is responsible for the day-to-day management, development, and dissemination of cancer related information as required by the provisions of the *Health (Western Australian Cancer Registry) Regulations 2011*. The PDMO is supported by the WA Clinical Coding Authority & WA Cancer Registry Coding Team for clinical and coding expertise.

Collection classification

The coding of tumour data is based on the International Classification of Diseases for Oncology (ICD-O) which originated as an extension of Chapter II (Neoplasms) of the Ninth Revision of the International Classification of Diseases (ICD-9); which was superseded by ICD-10. ICD-O permits separate coding of topography, morphology and behaviour, and thus allows a more comprehensive characterisation of some tumours than the single-code ICD-10 classification system. Topography and morphology codes from ICD-O 3.2 are used from 1 January 2018, however some

ICD-O 3.1 codes persist prior to this date though work is planned to reconcile these historical codes to version 3.2.

WACR mortality reporting has been based on death certificate coding performed within the Registry since 1990. WACR utilises the ICD-10, Fifth Edition (2016), Volume 2 Instruction Manual to determine the underlying cause of death on the death certificate.

ICD-10 defines the underlying cause of death as:

a) The disease or injury which initiated the train of morbid events leading directly to death; or

b) The circumstances of the accident or violence which produced the fatal injury

ICD-10 contains multiple special rules to select the cause of death that meets the above definition.

Multiple primary rules

The WACR rules for multiple primaries are based on the International Rules for Multiple Primary Cancers produced by the International Association of Cancer Registries.

A primary cancer is one that originates in a site with potential to extend/invade into adjacent structures or organs. The primary cancer may spread to regional or distant sites (metastatic spread). After excision/treatment, the primary cancer may recur at the same site or another site (documented as "recurrence").

If a cancer invades an adjacent organ, the documentation should be interpreted to determine where it originated/arose. Only the originating site is coded i.e. the site of the invaded adjacent organ is not collected, even if some of the documentation refers to the cancer as being of the adjacent site.

Before attempting to utilise the WACR multiple primaries rules to register a subsequent primary tumour, thorough abstraction and accurate interpretation firstly excludes metastasis, recurrence or extension. Metastasis, recurrence and adjacent organ invasion are not registered as a subsequent primary tumour, as they are part of the same disease process of the primary cancer.

Once metastasis, recurrence or adjacent organ invasion have been excluded, the rules detailed in Appendix A are used to determine whether multiple separate primaries are registered.

Correct use of the standard inclusions flag will account for multiple primaries that may have still been registered in the WACR, otherwise careful use of the countable and countable_ignore fields is required.

Scope of collection

Under the *Health (Western Australian Cancer Register) Regulations 2011,* the WACR receives cancer notifications from a variety of sources including reports and information received from pathologists, haematologists, cytologists, clinical biochemists, ophthalmologists, and radiation oncologists, and death certificates, hospital notifications, and via state and territory cancer registries.

The WACR contains information relating to incidence and mortality from 1982 onwards. The **standard inclusions field should be used** to ensure only WA residents are included in outputs.

All notifiable cancers are registered in the WACR, regardless of address at diagnosis, however, only diagnoses for residents in WA should be reported on. Registrations for diagnoses in other state and territory registrations are collated for data quality purposes and are on-provided to respective registries under legislation.

Standard inclusions flag

The standard inclusions flag is recommended for use in typical cancer incidence reporting of counts, rates, and survival of cancers in Western Australia. This flag applies the following rules:

- WA resident at time of diagnosis as determined by their postcode of residence at diagnosis.
    - This also includes a few cases in Christmas Island and the Cocos and Keeling Islands so caution should be used when calculating rates using standard WA populations.
- Primary cancers only. See: Multiple primary rules.
- Valid persons and tumours. Invalid persons and tumours may be in the dataset through merging and de-merging of cases, and removal of tumours that were erroneously registered.

Standard mortality inclusions flag

The standard mortality inclusion flag provides a derived field to ensure each person is counted once for mortality statistics and that the cancer related death is attributed to the appropriate person. This flag applies the following rules:

- Each person is counted once.
- Each death is cancer related and has been determined by the registry staff to be the underlying cause of disease resulting in that person's death, in accordance with ICD-10 rules.
- WA residents at time of death only. This is determined by their reported postcode at time of death. This may be the postcode of their residential address, a nursing or aged care home postcode, or their hospital postcode.
    - This may include a few cases in Christmas Island and the Cocos and Keeling Islands so caution should be used when calculating rates using standard WA populations.
- Valid persons and tumours. Invalid persons and tumours may be in the dataset through merging and demerging of cases, and removal of tumours that were erroneously registered.

Note: Do not apply both inclusions flags in analysis. Standard inclusions for cancer incidence, standard mortality for cancer mortality.

Australian Cancer Database

The Australian Cancer Database (ACD) is a national database maintained by the Australian Institute of Health and Welfare that contains cancer registry information provided by all states and territories relating to new cases of cancer diagnosed in Australia since 1 January 1982, excluding basal and squamous cell carcinomas of the skin. The AIHW undertakes deduplication of cases between registries. links with the National Death Index and provides advice to registries on coding variations to support coding harmonisation across cancer registries.

The AIHW produces various reports each year available on their website including Cancer Data in Australia and Cancer statistics for small geographic areas. Data may be requested directly from AIHW where it is not publicly available. Please navigate to www.aihw.gov.au for more details.

Australasian Association of Cancer Registries

The Western Australia Cancer Registry is a member of the Australasian Association of Cancer Registries (AACR) which is a collaborative body representing the 8 Australian state and territory cancer registries, the New Zealand Cancer Registry and the AIHW. It was formed in 1982 to provide a formal mechanism for promoting uniformity of collection, classification, and collation of cancer data.

The objectives of the AACR are to:

- analyse and report on the data in its national repository of cancer incidence and mortality statistics

- support research based on these data

- develop and improve cancer statistics generally.

DATA DEFINITIONS

Aboriginal status

Field Name:	aboriginal_status
Source Data Elements:	person.indigenous_code
Definition:	Whether a person identifies as being of Aboriginal and/or Torres Strait Islander origin.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	1 - Aboriginal 2 - Torres Strait Island 3 - Aboriginal and TSI 4 - Non-indigenous 5 - Indigenous NOS 9 - Unknown / not stated NULL - not collected

Guide for use

Aboriginal Status is either provided on pathology reports or updated from the Hospital Morbidity Data Collection (HMDC) data set bulk update. *The* WA Cancer Registry utilises an "any history of Aboriginal status" methodology in updating cases, that is, where conflicting information may be notified to the registry over time, preference is given to any identification of Aboriginal status. There are five categories that are captured in the registry. The values 1,2,3, and 5 are often combined to represent Aboriginal and/or Torres Strait Islander status.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values, and guide for use updates

Age

Field Name:	age
Source Data Elements:	person.date_of_birth, tumour.diagnosis_date
Definition:	The age of the person in (completed) years at the date of diagnosis of cancer.
Requirement Status:	Mandatory
Format:	numeric(18,0), null
Permitted Values:	0-120 NULL – not collected

Guide for use

The Age of the patient at diagnosis is derived from the difference between the Date of Birth and Date of Diagnosis, in completed years. The age is an integer rounded down. The age of the patient at diagnosis will usually be different to the age of the patient at death so use caution if including this field in mortality analysis.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Age group

Field Name:	age_group
Source Data Elements:	person.date_of_birth,tumour.diagnosis_date
Definition:	The age range that best accommodates a person's completed age in years, at the time of diagnosis of cancer.
Requirement Status:	Non-mandatory
Format:	numeric(22,0), null
Permitted Values:	0, 5, 10, 15 … 85, 99

Guide for use

The five-year age group at diagnosis is categorised using the patients age at time of diagnosis.

- 0 represents 0 – 4 years of age (inclusive).
- 5 represents 5 – 9 years of age (inclusive).
- 85 – represents persons 85 years of age and over.
- 99 is unknown age group.

Age in this field is calculated using the same definition as the age field.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Basis of diagnosis

Field Name:	basis_of_diagnosis
Source Data Elements:	tumour.diagnosis_basis_code
Definition:	The basis of diagnosis of a cancer is the most valid basis of diagnosis that is accepted by the cancer registry as the most reliable diagnostic source notified to and confirming the registered tumour.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	0 - Microscopic Dx, NOS 1 - Histopathology 2 - Cytology 3 - Haematology 4 - X-Ray / Ultrasound / MRI 5 - Clinical 6 - Biochemical / Immunologic test 7 - Surgery 8 - Post mortem 9 - Death Certificate D - DC and HMDS only R - Old Research case, no path found U - NULL

Guide for use

Basis of diagnosis is a field based on the highest level of verification of cancer specimen notified to the registry confirming a diagnosis. That is, if a case is originally notified through code 2 - Cytology (minimal or non-invasive testing) and a histopathology report is received for the same cancer the clinical coder will make the basis of diagnosis code 1 – Histopathology.

This field is useful to determine whether cancers notified to the cancer registry are validated microscopically, Non-microscopically or through death certificates.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Behaviour

Field Name:	behaviour
Source Data Elements:	tumour.behaviour_code
Definition:	The behavior of the tumour identifies whether the neoplasm is malignant, benign, in-situ or otherwise.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	0 - Benign 1 - Uncertain benign or malignant 2 - Carcinoma in situ 3 - Malignant invasive, primary site 6 - Malignant invasive, metastatic site 8 - Suggestive of malignancy 9 - Malignant, uncertain whether primary/metastatic

Guide for use

In the ICD-O-3 classification the behaviour field is represented as the 5th-digit of a morphology code and distinguishes benign, in-situ, malignant and other tumours.

Pathologists use a variety of observations to determine the behaviour of a tumour which is interpreted and captured in this field.

A tumour can grow in place without the potential for spread (/0, benign); malignant but still growing in place (/2, non-invasive or in situ); invade surrounding tissues (/3, malignant, primary site); or even disseminate from its point of origin and begin to grow at another site (/6 and /9, metastatic).

Under the *Health (Western Australian Cancer Register) Regulations 2011,* all /2 and /3 tumours and selected /0 and /1 tumours are notifiable and registered in the WACR.

Please see ICD-O 3.2 for more coding guidelines.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - ER marker

Field Name:	breast_er_marker
Source Data Elements:	tumour.oestrogen_biochem_marker_code
Definition:	The result of Oestrogen receptor assay at the time of diagnosis of the primary breast tumour.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	N - Negative. P - Positive. Q - Equivocal / Indeterminate. U - Unknown. X - Not applicable NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx, NOS (code 0), Histopathology (code 1) or Cytology (code 2).

Oestrogen receptor status is an indicator of responsiveness to hormonal therapies. High ER expression is associated with a good prognosis and with a response to hormonal therapy.

The collection of this data item is for initial diagnosis and not for recurrent or subsequent metastatic disease. Where the pathologist has stated the test result in the conclusion of the pathology report as being positive, negative, or equivocal this value is coded.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - HER2 marker

Field Name:	breast_her2_marker
Source Data Elements:	tumour.her_2_biochem_marker_code
Definition:	A code set representing whether human epidermal growth factor receptor-2 (HER2) was found from HER2 test.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	N - Negative. P - Positive. Q - Equivocal / Indeterminate. U - Unknown. X - Not applicable NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx, NOS (code 0), Histopathology (code 1) or Cytology (code 2).

HER2 receptor (human epidermal growth factor receptor 2), is sometimes referred to as Her2/neu or c-erb-2. Sometimes laboratories give IHC values as 0, 1+, 2+ or 3+ with no indication of positive or negative. The scale is detailed below:

- N = Negative
- 1+ = Negative
- 2+ = Equivocal (weak positive)
- 3+ = Strongly positive.

For SISH, BISH etc., the terms amplified/ non-amplified are often used in relation to the Her 2 receptor. 'Amplified' means a positive result and 'non-amplified' means negative.

For clinical use of Her 2 receptors - Her 2 +ve tumours are usually more aggressive, however, if a tumour is Her 2 +ve, there is a range of drugs to which the tumour may be sensitive.

For FISH, SISH etc., studies are usually done - especially if the lesion is at least 2+ on IHC. The code which gives the +ve result is used.

The collection of this data item is for initial diagnosis and not for recurrent or subsequent metastatic disease.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - HER2 test

Field Name:	breast_her2_test
Source Data Elements:	tumour.her_2_test_type_code
Definition:	The type of test used to determine the results of human epidermal growth factor receptor-2 (HER2) at the time of diagnosis of the primary tumour.
Requirement Status:	Conditional
Format:	nvarchar(8), null
Permitted Values:	1 - FISH. 2 - BISH / CISH / SISH. 3 - IHC. 4 - DISH. N - Not applicable. U - Unknown NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx, NOS (code 0), Histopathology (code 1) or Cytology (code 2).

There are several laboratory techniques available to test for HER2. The methods recorded in the WACR are Fluorescence in situ hybridization (FISH) which is considered the reference standard and more accurately predicts response to trastuzumab. Bright-field in situ hybridization (BISH), an alternative to FISH and uses a combination of in situ methodology and a peroxidase-mediated chromogenic substrate. Chromogenic in situ hybridisation (CISH) was introduced into diagnostic testing in Australia in October 2006. Silver in situ hybridization (SISH) methodology is a more recent introduction into the testing repertoire. Immunohistochemical (IHC) - a method of detecting proteins in/on cells.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Breast - ductal carcinoma in situ

Field Name:	breast_ductal_carcinoma_in_situ
Source Data Elements:	tumour.ductal_cis
Definition:	A non-invasive condition in which abnormal cells are found in the lining of a breast duct.
Requirement Status:	Conditional
Format:	bit, null
Permitted Values:	0 - No DCIS 1 - DCIS present NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

Invasive unilateral or bilateral breast tumours where each morphology code is identical; or each morphology code differs but codes are in the same Berg group, should be registered as multiple primaries.

Exception: Invasive tumours/tumour foci linked by a continuous area of carcinoma in situ, are registered as a single primary. This may be described as: extensive DCIS within and around tumours, interconnecting the separate invasive lesions; or tumour foci arising within extensive DCIS.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - isolated tumour cells

Field Name:	breast_isolated_tumour_cells
Source Data Elements:	tumour.itc
Definition:	Isolated Tumour Cells (ITC) is the presence of single tumour cells or small clusters of cells in a lymph node.
Requirement Status:	Conditional
Format:	bit, null
Permitted Values:	0 - No 1 - Yes NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - lymphovascular invasion

Field Name:	breast_lymphovascular_invasion
Source Data Elements:	tumour.lymphovascular_invasion
Definition:	The presence of tumour cells within a definite endothelial-lined space (lymphatics or blood vessels) in the breast surrounding invasive carcinoma
Requirement Status:	Conditional
Format:	bit, null
Permitted Values:	0 - No 1 - Yes NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

It is difficult to distinguish between lymphatics and veins; therefore, the term 'lymphovascular' is used to cover both possibilities. This element's details are captured from the pathology notification. Code 1 (yes) indicates that there is evidence of lymphovascular invasion.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - multifocal

Field Name:	breast_multifocal
Source Data Elements:	tumour.multifocal
Definition:	Breast cancer in which there is more than one tumour, all of which have arisen from one original tumour. The tumours are likely to be in the same quadrant (section) of the breast.
Requirement Status:	Conditional
Format:	bit, null
Permitted Values:	0 - No 1 - Yes NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

Where the report indicates evidence of at least two invasive tumours developed in the same quadrant, or area of the breast they are recorded as separate primaries. Where the pathology Pathologist's documentation specifically states "multifocal" disease, multifocal is selected.Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - primary size method

Field Name:	breast_primary_size_method
Source Data Elements:	tumour.primary_size_method_code
Definition:	The method for determining the primary size of the breast cancer tumour as either microscopic or not.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	I - Not applicable M - Microscopic N - Non microscopic U - Unknown method NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

The primary size of a breast tumour is recorded as either microscopic or macroscopic. If only the macroscopic size is given, this value is recorded. Where both the macroscopic and microscopic measurements are provided, and differ, the microscopic measurement is recorded. Tumour sizes for phyllodes tumours, sarcomas, or lymphomas are not recorded.

If a surgery is greater than four months post diagnosis, then it is coded as I (not applicable).

The registry only codes details which were determined on a specimen within 4 months of the diagnosis date to capture details of the lesion at presentation rather than after the effects of treatment or delayed resection.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - primary size of tumour

Field Name:	breast_primary_size_of_tumour
Source Data Elements:	tumour.primary_size
Definition:	The primary size of the breast cancer as reported on the pathology report.
Requirement Status:	Conditional
Format:	numeric(5,2), null
Permitted Values:	-1.00 - not applicable 0.01 - no measurement provided 0.99 - less than 1mm 1–200 - valid range 999.00 - missing/unavailable NULL - not collected

Guide for use

This is a conditional field for breast cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

Tumour sizes are only recorded where the tumour size is mentioned on the pathology notification.

The registry only codes tumour size details which were determined on a specimen within 4 months of the diagnosis date in order to capture details of the lesion at presentation rather than after the effects of treatment or delayed resection.

- If surgery is performed more than 4 months after the diagnosis, the 'Breast – primary size method' field is coded as 'Not applicable' and the 'Primary size in mm' is recorded as '-1.00'.

- If the 'Breast – primary size method' field is coded as 'microscopic (with no other measurement) the Primary size is recorded as 0.01.

- If the tumour size is described as "less than 1mm" the Primary size is recorded as 0.99

- If the tumour size is missing/unavailable, the Primary size is recorded as 999.00

Please see the WACR coding manual for more details on recording tumour sizes. The recorded size represents the largest available measurement of the primary tumour.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - sentinel nodes examined

Field Name:	breast_sentinel_nodes_examined
Source Data Elements:	tumour.sentinel_nodes_examined
Definition:	A sentinel lymph node is defined as the first lymph node to which cancer cells are most likely to spread from a primary tumour. Sometimes, there can be more than one sentinel lymph node.
Requirement Status:	Conditional
Format:	smallint, null
Permitted Values:	-2 - not applicable -1 - unknown 1 to 90 - As specified in notification 25 - not specified NULL - not collected

Guide for use

The field is only populated where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

This data field describes the number of sentinel nodes examined.

This count is collected from the pathology notification and has a valid range of 0 - 90.

Where nodes are not mentioned in the notification -1 represents 'unknown'. -2 represents not applicable.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - sentinel nodes positive

Field Name:	breast_sentinel_nodes_positive
Source Data Elements:	tumour.sentinel_nodes_positive
Definition:	A sentinel node is a node where cancer cells are most likely to spread first. With breast cancer this is the axilla node (under the armpit). A positive sentinel node means that the cancer cells have spread to the node.
Requirement Status:	Conditional
Format:	smallint, null
Permitted Values:	-2 - not applicable -1 - unknown 1 to 90 - As specified in notification NULL - not collected

Guide for use

The field is only populated where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

This field records the number of sentinel nodes reported as having metastatic tumour present.

This count is collected from the pathology notification and has a valid range of 0 - 90.

Where nodes are not mentioned in the notification -1 represents 'unknown'. -2 represents not applicable. Where a report is vague and states something like 'virtually all axillary nodes contain tumour' with no indication as to number of positive nodes – 25 is entered in the 'Total Positive' nodes field; and 25 also recorded in the 'Total Examined" nodes field.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - total nodes examined

Field Name:	breast_total_nodes_examined
Source Data Elements:	tumour.total_nodes_examined
Definition:	The total number of sentinel and axillary lymph nodes reported as having been examined.
Requirement Status:	Conditional
Format:	smallint, null
Permitted Values:	-2 - not applicable -1 - unknown 1 to 90 - As specified in notification 25 - not specified NULL - not collected

Guide for use

The field is only populated where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).This field records the total number of lymph nodes reported as having been examined. The count is collected from the pathology notification and has a valid range of 0 - 90.

Where nodes are not mentioned in the report -1 represents 'unknown'. -2 represents not applicable, and 25 indicates that the number of nodes is not specified in the report. Where a report is vague and states something like 'virtually all axillary nodes contain tumour' with no indication as to number of positive nodes – 25 is entered in this field and in the 'Total Positive' nodes field.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Breast - total nodes positive

Field Name:	breast_total_nodes_positive
Source Data Elements:	tumour.total_nodes_positive
Definition:	The total number of axillary lymph nodes (sentinel and others) reported as being positive.
Requirement Status:	Conditional
Format:	smallint, null
Permitted Values:	-2 - not applicable -1 - unknown 1 to 90 - As specified in notification 25 - not specified NULL - not collected

Guide for use

The field is only populated where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1) or Cytology (code 2).

This field records the total number of positive nodes reported as having been examined. The count is collected from the pathology notification and has a valid range of 0 - 90.

Where nodes are not mentioned in the notification -1 represents 'unknown'. -2 represents not applicable, and 25 indicates that the number of nodes is not specified in the report.

Where a report is vague and states something like 'virtually all axillary nodes contain tumour' with no indication as to number of positive nodes – 25 is entered in this field and in the 'Total' nodes examined field.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Cancer registration number

Field Name:	cancer_registration_number
Source Data Elements:	tumour.crn
Definition:	Cancer Registration Number (CRN) is a unique identifier given to each patient in Cancer Registry
Requirement Status:	Mandatory
Format:	nvarchar(7),null
Permitted Values:	NNNNNNX

Guide for use

The WACR maintains its own person registration system – the Cancer Registration Number (CRN). The CRN is unique to every new person record registered. This means that duplicate records for a single person can occur from time to time when some demographic details do not match existing records information. Common sources of erroneous new records being generated include variations in spelling family names, given names, and date of birth.

Potential duplicate records are identified most commonly through data linkage quality checks and are merged or de-merged by registry officers as appropriate.

Characteristics of the CRN:

- consists of 6 numeric and 1 alpha characters
- system generated and assigned to each person registered
- can be linked to multiple UMRNs
- can be linked to multiple tumours
- can be linked to multiple name aliases and addresses

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Cancer type

Field Name:	cancer_type
Source Data Elements:	icdm.neoplasm_type_code
Definition:	Grouping used for reporting purposes of cancer type based on cancer site (e.g., for breast, lung, prostate), morphology (e.g., lymphoma, leukemia), and behaviour.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	See Appendix B

Guide for use

Cancer type is aggregated from the combination of tumour site, morphology and behaviour. Most of these aggregations align with national and international aggregates, however some subgroups for haematopoietic cancers are unique to the Western Australian Cancer Registry.

See Appendix B for list of cancer type code and descriptions

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Cancer – reportable

Field Name:	cancer_reportable
Source Data Elements:	neoplasm_type.cancer
Definition:	Identification of a valid cancer case.
Requirement Status:	Mandatory
Format:	bit, null
Permitted Values:	0 - NULL 1 - reportable tumours

Guide for use

This field is used by the coders to flag reportable cancers. Reportable cancers are derived using the cancer type field, which itself is derived from a combination of site, morphology, and behaviour. All malignant and in situ tumours are reportable cancers. Non-reportable tumours include cutaneous BCC/SCC tumours, most benign tumours, and tumours identified only through HMDS records.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Cause of death - cancer related

Field Name:	cause_of_death_cancer_related
Source Data Elements:	icd_cause_of_death.within_jurisdiction
Definition:	The disease or injury which were the underlying condition that led directly to death.
Requirement Status:	Conditional
Format:	nvarchar(1), null
Permitted Values:	C - Died due to cancer X - Died due to cause other than cancer NULL - not collected

Guide for use

This field indicates whether the underlying cause of a person's death was due to a cancer or not.

The WACR is notified about a person's death by forensic pathologists, the WA Registrar General (RG), through data linkage, and/or via the National Death Index (NDI). The RG may provide an initial death certificate stating that the cause of death is pending and follows it up with a subsequent death certificate with a definitive cause of death. Clinical coders update cause of death as more recent information is received.

Note that the registry's cause of death may not align with ABS cause of death because the registry often has access to a richer breadth of clinical information to ascertain the underlying cause of death.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Cause of death - code

Field Name:	cause_of_death_code
Source Data Elements:	cause_of_death.icd_cause_of_death_code
Definition:	The underlying cause of death as indicated on the death certificate in accordance with ICD-10 Rules and guidelines for mortality and morbidity coding.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	As per ICD 10 codes

Guide for use

The Cause of Death is coded according to ICD-10 Rules and guidelines for mortality and morbidity coding. The information is gathered from death certificates, coroners' reports, and the national death index.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Cause of death - due to tumour

Field Name:	cause_of_death_due_to_tumour
Source Data Elements:	tumour.kill
Definition:	The underlying cause of death as indicated on the death certificate in accordance with ICD-10 Rules and guidelines for mortality and morbidity coding.
Requirement Status:	Conditional
Format:	bit, null
Permitted Values:	1 - Yes 0 - No

Guide for use

This field is used to identify the cancer that is the underlying cause of death in accordance with ICD-10 Rules and guidelines for mortality and morbidity coding.as. Unlike the other cause of death fields that provide the death code and description, this field is a Yes/No response. Note that one person may have multiple primary cancers over their lifetime and their cause of death should be attributed to one tumour, however there are some historical cases where this was ambiguous, and more than one tumour was flagged as resulting in their death. In this case, the earliest, or first tumour should be selected as resulting in the persons death.

Use of the mortality_inclusions_flag is recommended to account for 1 death due to cancer for a person record.

The underlying cause of death is central to the registry's mortality coding and is comparable to international mortality reporting.

- Code 1 – Yes indicates that the cause of death was due to a tumour,
- Code 0 – No indicates that cause of death was not due to a tumour, and
- NULL indicates the information was not collected or is missing.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Client Identifier

Field Name:	client_identifier
Source Data Elements:	person_umrn.umrn
Definition:	A unique medical record number, also referred to as Unit Medical Record Number
Requirement Status:	Mandatory
Format:	nvarchar(8), null
Permitted Values:	Alphanumeric (Private patients) Numeric (Public patients)

Guide for use

There are two streams of UMRNs. One stream is for public hospitals; and the second stream is for private hospitals. CanIS collects both streams of UMRNs, but only public hospital records are extracted for output and analysis. If private hospital UMRNs are required, these can be accessed through one-off data requests.

A person's record can contain multiple private and/or public hospital UMRNs, however, only one public UMRN can be nominated as the current number and that is what will be presented in this field, whereas multiple private UMRNs can be flagged as current.

Unique Medical Record Numbers (UMRN) may also be referred to as Unit Record Number (URN).

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Countable

Field Name:	countable
Source Data Elements:	tumour.countable
Definition:	Countable relates to primary cancers.
Requirement Status:	Mandatory
Format:	bit, null
Permitted Values:	0 – No 1 – Yes

Guide for use

The CanIS software automatically assigns the countable flag to tumours. When necessary, the senior clinical coder can override the automatic selection.

See the section Multiple primary rules for more details. Two tumours may be diagnosed and be in the "same" site and Berg Group (i.e., the sites are in the same group and the morphologies are in the same group, but they may not be identical codes).

If the morphology codes are different but within the same BERG group, CanIS will automatically ascribe the countable flag to the tumour with the highest morphology code

If the tumours have identical morphology codes, CANIS will automatically send them to the coordinator to ascribe countability. In this case, the Senior Clinical Coder may choose to record a particular tumour as a primary to be counted in statistic by checking the "countable ignore" button.

It is recommended to use the standard inclusions flag to ensure accurate reporting of primary tumours.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Countable ignore

Field Name:	countable_ignore
Source Data Elements:	tumour.countable_ignore
Definition:	Allows manual intervention to over the system's automatic setting and allows multiple primary cancers to be counted.
Requirement Status:	Conditional
Format:	bit, null
Permitted Values:	0 - NULL 1 - Yes

Guide for use

Two tumours may be diagnosed on the same day and be in the "same" site and Berg Group (i.e., the sites are in the same group and the morphologies are in the same group, but they may not be identical codes).

See the section Multiple primary rules for more information. If the morphology codes are different CanIS will automatically ascribe the countable flag to the tumour with the highest morphology code. The countable ignore function allows the senior clinical coder to override the automatic system selection.

If the tumours have identical morphology codes, CANIS will automatically send them to the coordinator to ascribe countability. In these situations, the Senior Clinical Coder (CanIS access level MO) will force a particular tumour to be "countable" by checking the "countable ignore" button.

It is recommended to use the standard inclusions flag to ensure accurate reporting of primary tumours.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Country of birth

Field Name:	country_of_birth
Source Data Elements:	birth_location.province_code
Definition:	Country of Birth is the description on the name of the country where the patient was born. ABS standard
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	As per ABS standard

Guide for use

The country of birth is collected from secondary sources including the hospital morbidity data system and death certificates.

Country of birth should align with ABS standard however please note that minimal quality assurance processes are applied to the COB field.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Date of birth

Field Name:	date_of_birth
Source Data Elements:	person.date_of_birth
Definition:	Date of Birth is the description of the date where the patient was born.
Requirement Status:	Mandatory
Format:	date, null
Permitted Values:	yyyy-mm-dd

Guide for use

The date of birth as provided on the relevant notification to the cancer registry. The clinical coders make every attempt to record the accurate date of birth when missing from notifications. Secondary sources available to the coders include hospital administration records.

Where an estimate has been used, please see the dob validity field for detail regarding the estimation technique

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Date of birth - validity code

Field Name:	date_of_birth_validity_code
Source Data Elements:	person.dob_date_validity_code
Definition:	Defines the accuracy of the date of birth
Requirement Status:	Mandatory
Format:	nvarchar(3), null
Permitted Values:	1 - Date OK 2 - Only Month and Year known (e.g., 15th) 3 - Only Year known (e.g., 30/06 4 - Whole date is an estimate 5 - Only and Month known; Year estimated 6 - Only Day and Year known; Month estimated 9 - Unknown

Guide for use

This field is used to indicate the completeness of the date of birth provided by the information source.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Date of death

Field Name:	date_of_death
Source Data Elements:	person.date_of_death
Definition:	Date when patient was deceased.
Requirement Status:	Conditional
Format:	date, null
Permitted Values:	yyyy-mm-dd

Guide for use

Date of death as recorded on death registrations provided to the WACR. Death registrations are provided monthly to WACR from the Office of the Registrar General via the Data Linkage team. Interstate deaths are also provided by the AIHW via an annual linkage process with the National Death Index.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Detection method

Field Name:	detection_method
Source Data Elements:	tumour.detection_method_code
Definition:	Method of detection for the cancer registered.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	1 - Clinical, N.O.S 2 - Clinical, symptomatic 3 - Clinical, incidental 4 - Autopsy, N.O.S 5 - Autopsy, related to death 6 - Autopsy, incidental finding 7 - Screening 8 - Other 9 - Unknown NULL - not collected

Guide for use

This flag identifies the method of detection used to identify the cancer at diagnosis in question. Note that WACR does not have access to all these data sources so, for example, screening detected cancers would not be complete for this field.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Diagnosis address

Field Name:	diagnosis_address
Source Data Elements:	address.street
Definition:	Address of residence at time of diagnosis.
Requirement Status:	Mandatory
Format:	nvarchar(158), null
Permitted Values:	As provided from information sources

Guide for use

The diagnosis address is associated to the tumour details and records the person's address at the time of each new diagnosed cancer. The diagnosis address(s) do not update as a person relocates to different residences. If a new tumour is registered after a person relocates the new residential address is used for the Diagnosis Address.

There are additional addresses captured in CanIS which are associated with the persons' demographic details. The most recent address notified to the registry is captured in the "person - last known address" field and may or may not be the same as the diagnosis address.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Diagnosis date

Field Name:	diagnosis_date
Source Data Elements:	tumour.diagnosis_date
Definition:	The date on which the patient was first diagnosed with cancer
Requirement Status:	Mandatory
Format:	Date, null
Permitted Values:	yyyy-mm-dd

Guide for use

Date of diagnosis must be:

- Greater than or equal to date of birth
- Less than or equal to date of death

Diagnosis of cancer after death:

- If the patient is first diagnosed with the cancer in an autopsy report the date of diagnosis is the date of death as stated on the patient's death certificate.

Incidental diagnosis of cancer:

- If a person is admitted into an institution for another condition (for example a broken leg, aged care, or pregnancy), and a cancer is diagnosed incidentally then the date of diagnosis is the date the cancer was diagnostically determined, not the date of admission into the institution.

If components of the date are not known, an estimate should be provided with an estimated date flag to indicate that it is estimated. If an estimated date is not possible, a standard date of 15 June 1900 should be used with a flag to indicate the date is not known. Additionally, a date accuracy indicator should be recorded in conjunction with the estimated date.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Diagnosis date - validity code

Field Name:	diagnosis_date_validity_code
Source Data Elements:	tumour.diagnosis_date_validity_code
Definition:	Defines the accuracy of the date of birth
Requirement Status:	Mandatory
Format:	nvarchar(3), null
Permitted Values:	1 - Date OK 2 - Only Month and Year known (e.g., 15th) 3 - Only Year known (e.g., 30/06 4 - Whole date is an estimate 5 - Only and Month known; Year estimated 6 - Only Day and Year known; Month estimated 9 - Unknown

Guide for use

This field is used to indicate the completeness of the diagnosis date provided by the information source.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Diagnosis postcode

Field Name:	diagnosis_postcode
Source Data Elements:	locality.postcode_code
Definition:	Postcode of person's residential address at time of diagnosis.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	Aligned with Australia Post postcode listings

Guide for use

This field represents the person's residential postcode at time of diagnosis as determined by the registry from various source types including pathology laboratories, health clinical administrative systems which may include comments from GPs or family members, the WA Registrar General, or from interstate cancer registries. Additional research is undertaken to determine complete residential addresses such as when a PO Box may be provided.

Where geocoding is not available the diagnosis postcode is recommended for mapping to socioeconomic and remoteness concordance files available from the Australian Bureau of Statistics website.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Diagnosis suburb

Field Name:	diagnosis_suburb
Source Data Elements:	locality.name
Definition:	Suburb of person's residential address at time of diagnosis.
Requirement Status:	Mandatory
Format:	nvarchar(64), null
Permitted Values:	Aligned with Australia Post postcode listings

Guide for use

This field represents the person's residential suburb at time of diagnosis as determined by the registry from various source types including pathology laboratories, health clinical administrative systems which may include comments from GPs or family members, the WA Registrar General, or from interstate cancer registries. Additional research is undertaken to determine complete residential addresses such as when a PO Box may be provided.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Diagnosis year

Field Name:	diagnosis_year
Source Data Elements:	tumour.diagnosis_date
Definition:	The year of diagnosis derived from the date of diagnosis
Requirement Status:	Mandatory
Format:	int, null
Permitted Values:	yyyy

Guide for use

The *'Diagnosis year'* data item relates to the year in which a cancer was first diagnosed. It is attributed to the tumour and not the person, therefore a single record in CanIS can have multiple diagnosis years. The field is derived from the date of diagnosis to support easier aggregates of cancer incidence by calendar years.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Family name

Field Name:	family_name
Source Data Elements:	person_name.family_name
Definition:	Description associated with person's family name, last name, or surname.
Requirement Status:	Mandatory
Format:	nvarchar(40), null
Permitted Values:	As provided from information sources

Guide for use

This field is populated from the first pathology and/or death notification when a new record is created. Subsequent notifications may include additional or new names that the clinical coders enter as more information becomes available.

CanIS stores multiple names for a single person's record. Name variations can occur due to changes in marital status, or variations in spelling, and may result in multiple names (or merged aliases) that can be entered into CanIS by the clinical coders. Where multiple family names have been saved in CanIS, only one name is flagged as the preferred name and provided in this field. This may result in a different family name being provided against a cancer registration number for extracts at different points in time. The latest provided family name is flagged as the preferred name and provided in this field.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

First given name

Field Name:	first_given_name
Source Data Elements:	person_name.given_name
Definition:	Description associated with person's first given name
Requirement Status:	Mandatory
Format:	nvarchar(40), null
Permitted Values:	As provided from information sources

Guide for use

This field is populated from the first pathology and/or death notification when a new record is created. Subsequent pathology notifications may include additional names that the clinical coders enter as more information becomes available.

CanIS can store multiple names for a single person's record. Name variations can occur due to changes in marital status, variations in spelling or merged records. The latest provided name is flagged as the preferred name and provided in this field. This field is populated from the first pathology and/or death notification when a new record is created. Subsequent pathology notifications may include second/third additional or new names that are entered into CanIS manually by the coders.

CanIS can store multiple names for a single person's record. Name variations can occur due to data entry errors, or spelling may result in multiple names (or aliases) that can be entered into CanIS by the clinical coders. Where multiple first given names have been saved in CanIS, only one name is flagged as the preferred name and provided in this field. This may result in a different first given name being provided against a cancer registration number for extracts at different points in time.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Grade

Field Name:	grade
Source Data Elements:	tumour.grade_code
Definition:	A description of a tumour based on how abnormal the cancer cells and tissue look under a microscope and how quickly the cancer cells are likely to grow and spread.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	1 - Low / Well differentiated 2 - Int. / Moderately differentiated 3 - High / Poorly differentiated 4 - Anaplastic / Undifferentiated 9 - Unknown X - Not applicable NULL - not collected

Guide for use

Tumour grade is an indicator of how quickly a tumour is likely to grow and spread. If the cells of the tumour and the organization of the tumour's tissue are close to those of normal cells and tissue, the tumour is called "well-differentiated." These tumours tend to grow and spread at a slower rate than tumours that are "undifferentiated" or "poorly differentiated," which have abnormal-looking cells and may lack normal tissue structures. Based on these characteristics and other differences in microscopic appearance, doctors assign a numerical "grade" to most cancers. However, there are some exceptions, cancers such as lymphoma, melanoma etc. don't have a grade, while Brain tumours grading is captured in the morphology.

The factors used to determine tumour grade can vary between diverse types of cancer. Tumour grade is different from the stage of a cancer. Cancer stage refers to the size and/or extent (reach) of the original (primary) tumour and whether cancer cells have spread in the body. Cancer stage is based on factors such as the location of the primary tumour, tumour size, regional lymph node involvement (the spread of cancer to nearby lymph nodes), and the number of tumours present.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Laterality

Field Name:	laterality
Source Data Elements:	tumour.laterality_code
Definition:	Laterality describes which side of a paired organ is the origin of the primary cancer. Each side of a paired organ is considered separately and described as lateral when occurring unless a physician determines that it is bilateral.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	L - Left. R - Right. U - Unknown. N - Not applicable B - NULL

Guide for use

This information is collected for the purpose of differentiating the site of the primary cancer. For example, a woman may present with a primary cancer in the left breast. She may return at a later stage with a new primary cancer in the right breast.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Melanoma - Breslow thickness

Field Name:	melanoma_breslow_thickness
Source Data Elements:	tumour.breslow_thickness
Definition:	A measure of how deeply a melanoma tumour has grown into the skin.
Requirement Status:	Conditional
Format:	numeric(5,2), null
Permitted Values:	-1 to 999

Guide for use

This is a conditional field for melanoma cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1).

The tumour thickness (depth) is usually measured from the top of the tumour to the deepest tumour cells. If the tumour is ulcerated (i.e., the skin is broken), it is measured from the base of the ulcer to the deepest tumour cells. Breslow thickness, which is captured to 2 decimal places, is used to help determine the stage of cancer.

-1 is used for unknown or undetermined Breslow thickness. The Breslow thickness can only be provided for melanoma cases.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Melanoma - Clark level

Field Name:	melanoma_clark_level
Source Data Elements:	tumour.clark_level_code
Definition:	The Clark's Level refers to how deep the Tumour has penetrated the layers of the skin.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	II - Clark Level II. III - Clark Level III. IV - Clark Level IV. V - Clark Level V . N/A - Not applicable. UNK - Missing/not available NULL - not collected

Guide for use

This is a conditional field for melanoma cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1).

The Clark Level provided on the pathology notification referring to how deep the tumour has penetrated the layers of the skin.

The AJCC system assigns a stage based on tumour, node, metastasis (TNM). Melanomas of the same stage are classified to have similar characteristics, treatment options, and outcomes. Note The American Joint Committee on Cancer (AJCC) version 8 has reduced reliance on the Clark Level as the Clark level has been found to be less prognostic and more subjective than other alternatives.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - asbestos exposure code

Field Name:	mesothelioma_asbestos_exposure_code
Source Data Elements:	mesothelioma.asbestos_exposure_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(5), null
Permitted Values:	See Appendix C - Mesothelioma asbestos exposure code and description

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - asbestos exposure description

Field Name:	mesothelioma_asbestos_exposure_description
Source Data Elements:	asbestos_exposure.name
Definition:	Mesothelioma related data item. Asbestos Exposure Code
Requirement Status:	Non-mandatory
Format:	nvarchar(50), null
Permitted Values:	See Appendix C - Mesothelioma asbestos exposure code and description

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - comment

Field Name:	mesothelioma_comment
Source Data Elements:	mesothelioma.comment
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(max), null
Permitted Values:	As provided from information sources

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - committee date

Field Name:	mesothelioma_committee_date
Source Data Elements:	mesothelioma.committee_date
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	Date, null
Permitted Values:	yyyy-mm-dd

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - exposure summary

Field Name:	mesothelioma_exposure_summary
Source Data Elements:	mesothelioma.exposure_summary
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(150), null
Permitted Values:	As provided from information sources

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - first year Wittenoom

Field Name:	mesothelioma_first_year_wittenoom
Source Data Elements:	mesothelioma.first_year_wittenoom
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	smallint, null
Permitted Values:	yyyy

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma – first year exposed

Field Name:	mesothelioma_first_year_exposed
Source Data Elements:	mesothelioma.first_year_exposed
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	smallint, null
Permitted Values:	yyyy

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - history

Field Name:	mesothelioma_history
Source Data Elements:	mesothelioma.history
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(max), null
Permitted Values:	As provided from information sources

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - lived Wittenoom verity code

Field Name:	mesothelioma_lived_wittenoom_verity_code
Source Data Elements:	mesothelioma.lived_wittenoom_verity_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(1), null
Permitted Values:	D - Doubtful N - No P - Probably U - Unknown Y - Yes NULL - not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - mesothelioma status code

Field Name:	mesothelioma_status_code
Source Data Elements:	mesothelioma.meso_status_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(5), null
Permitted Values:	C – Confirmed F – Mesothelioma (non-malignant) N – Non Meso P – Pending R – Re-present S – Suspected V – Review spec X – Not WA Z - Unassessed U – Unpresented

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - non occupational exposure verity code

Field Name:	mesothelioma_non_occupational_exposure_verity_code
Source Data Elements:	mesothelioma.non_occupational_exposure_verity_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(1), null
Permitted Values:	D - Doubtful N - No P - Probably U - Unknown Y - Yes NULL - not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - occupational exposure casual verity code

Field Name:	mesothelioma_occupational_exposure_casual_verity_code
Source Data Elements:	mesothelioma.occupational_exposure_casual_verity_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(1), null
Permitted Values:	D - Doubtful N - No P - Probably U - Unknown Y - Yes NULL - not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - occupational exposure inherent verity code

Field Name:	mesothelioma_occupational_exposure_inherent_verity _code
Source Data Elements:	mesothelioma.occupational_exposure_inherent_verity _code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(1), null
Permitted Values:	D - Doubtful N - No P - Probably U - Unknown Y - Yes NULL - not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - occupational exposure nos verity code

Field Name:	mesothelioma_occupational_exposure_nos_verity_code
Source Data Elements:	mesothelioma.occupational_exposure_nos_verity_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(1), null
Permitted Values:	D - Doubtful N - No P - Probably U - Unknown Y - Yes NULL - not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - smoked start age

Field Name:	mesothelioma_smoked_start_age
Source Data Elements:	mesothelioma.smoke_start_age
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	smallint, null
Permitted Values:	0 – 120 NULL – not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - smoked stop age

Field Name:	mesothelioma_smoked_stop_age
Source Data Elements:	mesothelioma.smoke_stop_age
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	smallint, null
Permitted Values:	0 – 120 NULL – not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - smoked verity code

Field Name:	mesothelioma_smoked_verity_code
Source Data Elements:	mesothelioma.smoked_verity_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	nvarchar(1), null
Permitted Values:	D - Doubtful N - No P - Probably U - Unknown Y - Yes NULL - not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Mesothelioma - visited Wittenoom verity code

Field Name:	mesothelioma_visited_wittenoom_verity_code
Source Data Elements:	mesothelioma.visted_wittenoom_verity_code
Definition:	Mesothelioma related data item.
Requirement Status:	Non-mandatory
Format:	X(1)
Permitted Values:	D - Doubtful N - No P - Probably U - Unknown Y - Yes NULL - not collected

Guide for use

The mesothelioma fields capture specific information to support the Australian Mesothelioma Registry (AMR) which is a stand-alone database that contains information about people with mesothelioma. The AMR monitors all new cases of mesothelioma diagnosed in Australia.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Metastasis - date identified

Field Name:	metastasis_date_identified
Source Data Elements:	tumour.metastasis_date
Definition:	Date when metastasis was identified, either clinically or pathologically
Requirement Status:	Conditional
Format:	date, null
Permitted Values:	yyyy-mm-dd

Guide for use

Where evidence of metastases is reported on a pathology report or on the death certificate, the date of known metastases is recorded.

Note that evidence of metastases is not actively followed up for every case and therefore this field may not capture metastases for all patients registered in WACR.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Metastasis - period of identification

Field Name:	metastasis_period_of_identification
Source Data Elements:	tumour.metastatis_spread_onset_code
Definition:	Description of person's metastasis history
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	0 - Not as far as we know 1 - At Diagnosis 2 - At Death 3 - After Dx: get date NULL - not collected

Guide for use

Where evidence of metastases is reported on a pathology and/or death notification or on the death certificate, the metastatic flag is updated to one of the values selected, and the date of known metastases is recorded.

Note that evidence of metastases is not actively followed up for every case and therefore this field may not capture metastases for all patients registered in WACR.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values updates and guide for use update

Modifier code

Field Name:	modifier_code
Source Data Elements:	tumour_prognosis.prognosis_modifier_code
Definition:	The modifier code provides context where there is a deviation from a standard treatment journey.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	1 - Prior treatment. 2 - Regressing 3 - No Rx - refused. 4 - No Rx - advanced cancer. 5 - No Rx - other non-cancer reason. 6 - No Rx - unknown/NOS. 7 - Treatment delayed 8 - Did have treatment 9 - Other - refer to notes NULL - not collected

Guide for use

This modifier code indicates events that may have occurred for the person with cancer that may impact the person's cancer journey. For example, radiation therapy prior to surgery for breast cancer may lower the risk of the cancer coming back or reoccurring after surgery (code 1 – Prior treatment). On the other hand, a longer period between surgery and the start of radiation therapy increases the risk of local cancer recurrence (code 7 – Treatment delayed).

Note that this field does not cover all treatment modifiers for the population and should be used only as a guide, further, the information is not routinely available.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Morphology - code

Field Name:	morphology_code
Source Data Elements:	moprhology.icdo_morphology_code
Definition:	The histological classification of the cancer tissue (histopathological type) according to ICD-O
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	8000 to 9989

Guide for use

Morphology (histological type) refers to the physical structure of the affected cells and tissues. It represents the molecular, cellular, and architecture characteristics of the affected cells and tissues. The morphology code records the kind of tumour that has developed and how it behaves. A complete morphology code includes the 4-digit cell type code and the 1-digit behaviour code.

As at October 2023, Clinical coders select the most accurate morphology codes in accordance with ICD-O Version 3.2. A single morphology code may have multiple descriptions or synonyms.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Morphology - description

Field Name:	morphology_description
Source Data Elements:	moprhology.name
Definition:	The description of the course of development that a tumour is likely to take benign or malignant (behaviour).
Requirement Status:	Mandatory
Format:	nvarchar(64), null
Permitted Values:	As per ICD-O Version 3.2

Guide for use

Morphology (histological type) refers to the physical structure of the affected cells and tissues. It represents the molecular, cellular, and architecture characteristics of the affected cells and tissues. The morphology code records the kind of tumour that has developed and how it behaves.

WACR clinical coders code morphologies in accordance with ICD-O 3.2. Detailed morphology serves as an index of confidence in the diagnosis. Morphology must be considered in epidemiological and clinical studies as it is often related to etiology and prognosis.

A single morphology code may have multiple descriptions or synonyms. For example, the morphology code 8503 could represent intraductal papilloma, intraductal papillary adenocarcinoma, infiltrating papillary adenocarcinoma or invasive papillary carcinoma.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Person - age at death

Field Name:	age_at_death
Source Data Elements:	Person.date_of_birth, person.date_of_death
Definition:	The age of the person in (completed) years at the date of their death.
Requirement Status:	Mandatory
Format:	numeric(18,0), null
Permitted Values:	0-120 NULL – not collected

Guide for use

This field represents the persons completed age at death and should be used for mortality statistics by age.

Date and cause of death are updated from the Department of the Registrar General and through linkages with the National Death Index via the Australian Institute of Health and Welfare.

Revision History

Date	Comment
May 2023	
October 2023	New data field added

Person - last known address

Field Name:	person_last_known_address
Source Data Elements:	address.street
Definition:	The residential address that the most recent pathology, death notification, or clinical information provides
Requirement Status:	Mandatory
Format:	nvarchar(128), null
Permitted Values:	As provided from information sources

Guide for use

This field is populated from the first notification when a new record is created. As the person moves between residences over the course of their life subsequent notifications received by the registry inform the clinical coders of the new address, and the coders update the person's address details in the demographic section of CanIS and flag the latest address as the 'Preferred' address.

The associated address is captured in this field. The previous addresses are preserved and stored in CanIS against the record for historical, researching, and reporting purposes.

The last known address may be different to the address at diagnosis and the address at mortality and should not be used for typical incidence and mortality statistics.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates.

Person - last known postcode

Field Name:	person_last_known_postcode
Source Data Elements:	locality.postcode_code
Definition:	The residential postcode that the most recent pathology, death notification, or clinical information provides
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	As provided from information sources

Guide for use

This field is populated from the first notification when a new record is created. As the person moves between residences over the course of their life subsequent notifications received by the registry inform the clinical coders of the new address, and the coders update the person's address details in the demographic section of CanIS and flag the latest address as the '*Preferred*' address.

The associated postcode is captured in this field. The previous postcodes are preserved and stored in CanIS against the record for historical, researching, and reporting purposes.

The last known postcode will often be different to the postcode at diagnosis and the postcode at mortality and should not be used for typical incidence and mortality statistics.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Person - last known suburb

Field Name:	person_last_known_suburb
Source Data Elements:	locality.name
Definition:	The residential suburb that the most recent pathology, death notification, or clinical information provides
Requirement Status:	Mandatory
Format:	nvarchar(64), null
Permitted Values:	As provided from information sources

Guide for use

This field is populated from the first pathology and/or death notification when a new record is created. As the person moves between residences over the course of their life subsequent notifications received by the registry inform the clinical coders of the new address, and the coders update the person's address details in the demographic section of CanIS and flag the latest address as the '*Preferred*' address.

The associated suburb is captured in this field. The previous suburbs are preserved and stored in CanIS against the record for historical, researching, and reporting purposes.

The last known suburb will often be different to the suburb at diagnosis and the suburb at mortality and should not be used for typical incidence and mortality statistics.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Person - postcode at death

Field Name:	death_postcode
Source Data Elements:	Derived depending on location at death
Definition:	The geographical postcode of the person at the time of their death.
Requirement Status:	Conditional
Format:	numeric(18,0), null
Permitted Values:	0-120 NULL – not collected

Guide for use

This field is a derived postcode field from the location of death to simplify the calculation of the postcode at death. This should be used for WA mortality statistics.

The postcode is calculated using the following algorithm where the place of death is registered as own home through to unknown with the corresponding postcode used:

- Own home: person – last known postcode
- Establishment: establishment postcode
- En-route to hospital: establishment postcode
- Other private residence: private residence postcode
- Death (HMDC): person - last known postcode
- NT: 0999
- Overseas: 9999
- QLD: 4999
- SA: 5999
- TAS: 7999
- VIC: 2999
- NSW: 3999
- Deceased out of state NOS: 9999
- Unknown: last known postcode

Revision History

Date	Comment
May 2023	
October 2023	New data field added

Person id number

Field Name:	person_ID
Source Data Elements:	*Supplied by data linkage*
Definition:	A field provided by the Data Linkage Unit to facilitate linkage between datasets.
Requirement Status:	Mandatory
Format:	Bigint,null
Permitted Values:	System generated

Guide for use

The person id is based on the encrypted root number calculated by the Data Linkage team. This field can be used to link between datasets (master files) in the DoH Data & Information Systems warehouse.

Note that this field is accurate at a point in time and may change over time, or potentially be out of sync with other datasets with various update schedules.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Person valid

Field Name:	person_valid
Source Data Elements:	person.valid
Definition:	Valid person flag
Requirement Status:	Non-mandatory
Format:	bit, null
Permitted Values:	0 - Deleted or merged with another record 1 - Valid person

Guide for use

This flag is used to identify a valid person (case) in the registry and is a standard inclusion criterion. Invalid persons (cases) may be a result of duplicate and/or erroneous records being identified and rectified.

Examples of duplicate and/or erroneous records include:

- Changes of family name due to marriage and/or divorce
- Different spellings and/or punctuation of any names
- Traversing of first, second and family names
- Different dates of birth

Correct use of the standard_inclusions_flag and the standard_mortality_flag will ensure inclusion of valid persons.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Place of death - Establishment postcode

Field Name:	place_of_death_establishment_postcode
Source Data Elements:	locality.postcode_code
Definition:	The postcode of the establishment where the person died.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	As provided from information sources

Guide for use

The Place of death – establishment postcode is associated to the establishment in Western Australia where the person died such as a nursing or aged care home.

This field must be used in conjunction with the location of death field. Note that the Person – postcode of death is derived using this field and is recommended for use when calculating mortality statistics for WA.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Place of death - Location type code

Field Name:	place_of_death_location_type_code
Source Data Elements:	person.death_location_type_code
Definition:	Place where patient was deceased.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	01 Own home. 02 - Establishment. 03 - En Route to Hospital. 04 - Other Private Residence. 05 - Death (HMDS code only). 06 - NT. 07 - O/S. 08 - QLD. 09 - SV. 10 TAS. 11 - VIC. 12 - NSW. 14 - Deceased Out of State 99 - Place of death unknown NULL - not collected

Guide for use

This filed is used when the registry is notified of the death of a person in the cancer registry with or without cancer. It identifies the location of the person's death and used to further derive where the address and postcode at death should be taken from, e.g., last known address, hospital or nursing home address, interstate address.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Place of death - Private Residence postcode

Field Name:	place_of_death_private_residence_postcode
Source Data Elements:	locality.postcode_code
Definition:	The postcode of the private residence where a person dies where the residence is not their own home.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	As provided from information sources

Guide for use

The private residence postcode is associated with a private residence where the person died, which is not their own home or an establishment such as nursing or aged care homes.

This field must be used in conjunction with the location of death field. Note that the Person – postcode of death is derived using this field and is recommended for use when calculating mortality statistics for WA.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Prostate - gleason score 1

Field Name:	prostate_gleason_score_1
Source Data Elements:	tumour.gleason_1
Definition:	The Gleason Score is the grading system used to determine the aggressiveness of prostate cancer.
Requirement Status:	Conditional
Format:	smallint, null
Permitted Values:	1 - 5 -1 –unknown/not reported NULL – not collected

Guide for use

This is a conditional field for prostate cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1)

The Gleason Grading System; helps predict prognosis. The Gleason score 1 is the score provided by the pathologist in the pathology notification. The first number (gleason score 1) relates to the grade of the most common tumour pattern and the second number (gleason score 2) to the grade of the next most common pattern. The 2 grades are then added together to get a Gleason Score (gleason score total. The higher the Grade or Score, the poorer the prognosis.

For a Gleason Score 7, it could be either a 4+3 =7 or 3+4=7 or both on the path report. The 4+3 would be more aggressive than the 3+4 so that would be the one that is recorded, i.e., the one with the highest first number is the one WACR enters.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Prostate - gleason score 2

Field Name:	prostate_gleason_score_2
Source Data Elements:	tumour.gleason_2
Definition:	The Gleason Score is the grading system used to determine the aggressiveness of prostate cancer.
Requirement Status:	Conditional
Format:	smallint, null
Permitted Values:	1 - 5 -1 –unknown/not reported NULL – not collected

Guide for use

This is a conditional field for prostate cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1).

The Gleason Grading System; helps predict prognosis. The Gleason score 1 is the score provided by the pathologist in the pathology notification. The first number (gleason score 1) relates to the grade of the most common tumour pattern and the second number (gleason score 2) to the grade of the next most common pattern. The 2 grades are then added together to get a Gleason Score (gleason score total. The higher the Grade or Score, the poorer the prognosis.

For a Gleason Score 7, it could be either a 4+3 =7 or 3+4=7 or both on the path report. The 4+3 would be more aggressive than the 3+4 so that would be the one that is recorded, i.e., the one with the highest first number is the one WACR enters.

NB: The Gleason score may be left blank if unavailable.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Prostate - gleason score total

Field Name:	prostate_gleason_score_total
Source Data Elements:	tumour.gleason_total
Definition:	The Gleason Score is the grading system used to determine the aggressiveness of prostate cancer. This the total of Gleason 1 and 2 scores.
Requirement Status:	Conditional
Format:	smallint, null
Permitted Values:	1- 10 NULL – not collected/not reported

Guide for use

This is a conditional field for prostate cancers; information is only recorded where the basis of diagnosis is Microscopic Dx NOS (code 0), Histopathology (code 1).

The Gleason Grading System; helps predict prognosis. The Gleason score 1 is the score provided by the pathologist in the pathology notification. The first number (gleason score 1) relates to the grade of the most common tumour pattern and the second number (gleason score 2) to the grade of the next most common pattern. The 2 grades are then added together to get a Gleason Score (gleason score total. The higher the Grade or Score, the worse the prognosis.

For a Gleason Score 7, it could be either a 4+3 =7 or 3+4=7 or both on the path report. The 4+3 would be more aggressive than the 3+4 so that would be the one that we record-i.e., the one with the highest first number is the one we choose.

NB: The Gleason score may be left blank if unavailable.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Recurrence - date of onset

Field Name:	recurrence_date_of_onset
Source Data Elements:	tumour.local_spread_date
Definition:	Recurrence flag for date of onset.
Requirement Status:	Conditional
Format:	date, null
Permitted Values:	yyyy-mm-dd

Guide for use

The date that recurrence of an invasive cancer was identified. Whilst recurrence is reported where documentation from pathology or clinical information sources indicate recurrence, this information is not routinely provided to WACR and the presence of this field should not be used as an estimate of recurrence in the population.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Recurrence - onset code

Field Name:	recurrence_onset_code
Source Data Elements:	tumour.local_spread_onset_code
Definition:	Recurrence flag identifying period of onset.
Requirement Status:	Conditional
Format:	nvarchar(5), null
Permitted Values:	0 - Not as far as we know. 1 - At Diagnosis. 2 - At Death. 3 - After Dx; get date NULL - not collected

Guide for use

The recurrence – onset code field is only used for invasive cancers and states at what point the recurrence was identified. Whilst recurrence is reported where documentation from pathology or clinical information sources indicate recurrence, this information is not routinely provided to WACR, and the presence of this flag should not be used as an estimate of recurrence in the population.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Reliability marker

Field Name:	reliability_marker
Source Data Elements:	tumour.reliability_code
Definition:	Flag for each tumour in CanIS to assist with validation and quality assurance.
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	1 - OK. 2 - On an enquiries list 5 - No action possible - not ok 6 - Incomplete - no more can be done 7 - Chose not to research 8 - OLD CASE; Follow-up unclear 9 - Incomplete – surgery with no initial biopsy 10 – Incomplete – Biopsy with no surgical report P – Pathology – Submission pending H - HMDS record, unassessed X - OLD CASE: Follow-up not complete

Guide for use

The reliability marker is an operational field used to provide confidence or flag particular scenarios relating to complete ascertainment of information for a case.

All response in this field should be used in analysis and reporting.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Second given name

Field Name:	second_given_name
Source Data Elements:	person_name.other_names
Definition:	Description associated with person's second given name or middle name.
Requirement Status:	Non-mandatory
Format:	nvarchar(40), null
Permitted Values:	As provided from information sources

Guide for use

This field is populated from the first pathology and/or death notification when a new record is created – where a second name is provided. Subsequent notifications may include additional names and, in these cases, the WACR Clinical coders update the person record.

CanIS can store multiple names for a single person's record. Name variations can occur due to data entry errors, or spelling may result in multiple names (or aliases) that can be entered into CanIS by the clinical coders. Where multiple second given names have been saved in CanIS, only one name is flagged as the preferred name and provided in this field. This may result in a different second given name being provided against a cancer registration number for extracts at different points in time.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use update

Sex

Field Name:	sex
Source Data Elements:	person.sex_code
Definition:	Description associated with person's gender
Requirement Status:	Mandatory
Format:	nvarchar(1),null
Permitted Values:	1 - Male 2 - Female 9 - Unknown NULL – not collected

Guide for use

The sex of the person recorded on the pathology notification or updated from clinical and administrative information sources available to the WA Cancer Registry.

The WACR CanIS software does not have the capacity to capture any additional gender fields as of October 2023 and historical in-built quality checks may force coding officers to change the sex than what is provided on pathology reports. For example, a transgender female may present with prostate cancer and be reported as sex as female, however CanIS forces all prostate cases to be male. In this case whilst male is reported in the registry, evidence of differing gender/sex are captured in free text fields for future reference and updates should enhancements in CanIS facilitate more accurate capture of gender and sex at birth.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Standard inclusion - incidence

Field Name:	standard_inclusions_flag
Source Data Elements:	derived
Definition:	An indicator assigned to a person's record to ensure that accurate records are identified for reporting incidence counts and rates, and survival of cancers in Western Australia.
Requirement Status:	Non-mandatory
Format:	int, null
Permitted Values:	1 – include in standard incidence reporting 0 – all other persons and cancers registered

Guide for use

The standard inclusions flag should be used for typical cancer incidence reporting of counts, rates, and survival of cancers in Western Australia. The field applies inclusions to records for:

- WA resident at time of diagnosis.
- Primary malignant (behaviour 3) cancers only
- Valid persons and tumours

Caution should be used if analysing or reporting on incidence when not using this flag, and discussion with the WACR team is recommended.

The incidence and mortality inclusions flag should be used independently, the incidence flag for incidence reporting, the mortality flag for mortality reporting.

NB: A few cases from Christmas Island and the Cocos and Keeling Islands may be included so caution should be used when calculating rates using standard WA populations.

Revision History

Date	Comment
May 2023	
October 2023	New data field added

Standard inclusion - mortality

Field Name:	standard_mortality_inclusion
Source Data Elements:	derived
Definition:	An indicator assigned to a person's record to ensure that they are only counted once for mortality statistics.
Requirement Status:	Non-mandatory
Format:	int, null
Permitted Values:	1 – include in standard mortality reporting 0 – all other persons and cancers registered

Guide for use

The standard mortality inclusion flag ensures that each person is counted once for mortality statistics and that the cancer related death is attributed to the appropriate person. The field applies to records for:

- A single person – i.e., each person is counted once

- WA residents at time of death only.

- Each death is cancer related

The incidence and mortality inclusions flag should be used independently, the incidence flag for incidence reporting, the mortality flag for mortality reporting.

NB: A few cases from Christmas Island and the Cocos and Keeling Islands may be included so caution should be used when calculating rates using standard WA populations.

Revision History

Date	Comment
May 2023	
October 2023	New data field added

Tumour ID

Field Name:	tumour_id
Source Data Elements:	tumour.id
Definition:	The unique system ID generated by CanIS for every tumour entered.
Requirement Status:	Mandatory
Format:	int, null
Permitted Values:	System generated

Guide for use

CanIS generates unique identification numbers for each tumour entered in the registry. This is a system generated identifier that has no visibility in the front end of CanIS.

This field is primarily used by the Data Linkage branch to identify unique tumours. It is not useful for general analysis, with the combination of cancer registration number and tumour number being preferred to identify people and tumours recorded against them.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format , permitted values and guide for use updates.

Tumour number

Field Name:	tumour_number
Source Data Elements:	tumour.path_no
Definition:	An incremental number assigned to each tumour entered for a patient.
Requirement Status:	Mandatory
Format:	nvarchar(8), null
Permitted Values:	System generated

Guide for use

Where a person has multiple tumours registered in the WACR, a new tumour number is assigned to them by the Cancer Registry Information System In the *Tumour section* of CanIS the *Path No*. (001, 002, 003 etc.) is the tumour number.

The combination of cancer registration number and tumour number is recommended to identify different registered tumours.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format, permitted values and guide for use updates

Tumour site - code

Field Name:	tumour_site_code
Source Data Elements:	site.icdo_site_code
Definition:	ICD-O code assigned to the tumour topography or anatomical location on the body
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	As per ICD-O Version 3.2 codes

Guide for use

The site (topography) code used to code tumours refers to the anatomical location of the primary tumour. The detailed topography of a tumour is the most important item of data recorded, and it provides the main axis of tabulation of registry data. To ensure accurate coding of the tumour site the coders investigate associated pathological reports and clinical documentation to gain as much specific information that is available to assist the accurate coding of a primary site. Additional information from future notifications can result in previously recorded primary tumours being updated.

With ICD-O 3.2, topography is coded for all tumours. Benign tumours and tumours of undefined behaviour are coded with the same topography as malignant tumours, and therefore consideration of the morphology and behaviour of the tumour is required when reporting cancers.

The primary site (topography) is the location that the tumour originated in a person with cancer. For cases with a secondary or unknown primary/secondary behaviour (behaviour = 6/9) the topography provided may be the site of metastases as the primary site is unknown. These cases will in future be coded with a primary site unknown (C80.9) and behaviour 3 malignant to achieve consistency with other cancer registries.

Contact the WACR for a full list of topography codes and descriptions.

Revision History

Date	Comment
May 2023	Original version
October 2023	Format, permitted values and guide for use updates

Tumour site - description

Field Name:	tumour_site_description
Source Data Elements:	site.name
Definition:	Description assigned to the tumour topography or anatomical location on the body
Requirement Status:	Mandatory
Format:	nvarchar(64), null
Permitted Values:	As per ICD-O Version 3.2 code descriptions

Guide for use

The site (topography) description provides a detailed explanation of the assigned topography code of the anatomical location of the primary tumour. The detailed topography of a tumour is the most important item of data recorded, and it provides the main axis of tabulation of registry data. To ensure accurate coding of the tumour site the coders investigate associated pathological reports and clinical documentation to gain as much specific information that is available to assist the accurate coding of a primary site.. Additional information from future notifications can result in previously recorded primary tumours being updated.

The primary site (topography) is the location that the tumour originated in a person with cancer. For cases with a secondary or unknown primary/secondary behaviour (behaviour = 6/9) the topography provided may be the site of metastases as the primary site is unknown. These cases are commonly recoded with a primary site unknown (C80.9) and behaviour 3 malignant.

Contact the WACR for a full list of topography codes and descriptions.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Tumour valid

Field Name:	tumour_valid
Source Data Elements:	tumour.valid
Definition:	Flag to identify tumours that have been deleted by cancer coding officers within CanIS
Requirement Status:	Mandatory
Format:	bit, null
Permitted Values:	0 – NULL 1 – valid

Guide for use

The tumour valid field is used to identify valid tumours in the WACR. Valid tumour is a standard inclusion criterion. This flag is used to identify tumours that were removed from the WACR or were merged. Its value is two-fold; one for reporting purposes and two to identify tumours that are later found to be valid.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Tumour verification status

Field Name:	tumour_verification_status
Source Data Elements:	tumour.verification_status_code
Definition:	Code for status of tumour verification
Requirement Status:	Mandatory
Format:	nvarchar(5), null
Permitted Values:	* - Unusual comb to be checked by MO. C - Checked by Medical Officer. M - User requested checking by MO. N - No verification required. V - Unusual comb. - checked by M/O

Guide for use

The tumour verification status field is an operational field used by coding officers to communicate with a senior officer to flag records requiring coding validation.

Revision History

Date	Comment
May 2023	Original version
October 2023	Minor format and permitted values updates

Appendix A - Multiple/separate primaries (solid tumours) WACR Exceptions

Multiple/separate primaries rule	Examples and actions

1. Codes in different Berg groups
 	
Tumours where each Morphology code differs, and codes are in different Berg groups, should be registered as separate primaries even if they are diagnosed simultaneously in the same site (third digit category).
	Examples
	Adenocarcinoma (8140 – Berg group 3) of rectum (C20.9) and mesothelioma (9050 – Berg group 7) of pleura (C38.4).
	  → Separate primaries registered, coded to sites C20.9 and C38.4.
	
	Squamous cell carcinoma (8070 – Berg group 1) and adenocarcinoma (8140 – Berg group 3) in the left upper lobe of the lung (C34.1).
	  → Separate primaries are registered, both coded to primary site C34.1 (same third digit category)

2. Codes in the same Berg group, different sites Tumours where each Morphology code differs, and codes are in the same Berg group, and tumours arise in a different site (third digit category), should be registered as separate primaries.	**Example** Adenocarcinoma (8140 – Berg group 3) of sigmoid colon C18.5 and follicular adenocarcinoma (8330 - Berg group 3) of thyroid C73.9 → Separate primaries are registered, coded to sites C18.5 and C73.9
3. Codes in the same Berg group, same site Tumours where each morphology code differs, and codes are in the same Berg group, and both tumours arise in the same site (third digit category), should be registered as a single primary. ***Exceptions*** • 3.1 Breast • 3.2 Colorectal • 3.3 Lung • 3.4 Thyroid • Melanoma – see Melanoma section xx.	**Example** Two liver lesions 1. Segment 4A subcapsular (C22.0) Hepatocellular carcinoma (8170 Berg group 4) 2. Segment 8 intraparenchymal (C22.0) Combined hepatocellular and cholangiocarcinoma (8180 Berg group 4) → A single primary is registered, assign the numerically higher morphology code as per logic in ICD-O/4.3.8 *Coding a diagnosis with multiple morphology terms* (page 24)
3.1 Breast – multiple invasive tumours Invasive unilateral or bilateral breast tumours where each morphology code is identical; or	Register all invasive tumours from each breast as a separate primary, including those diagnosed on the same day. Do not attempt to register multiple

each morphology code differs but codes are in the same Berg group, should be registered as multiple primaries.

Exception: Invasive tumours/tumour foci linked by a continuous area of carcinoma in situ, are registered as a single primary. This may be described as: extensive DCIS within and around tumours, interconnecting the separate invasive lesions; or tumour foci arising within extensive DCIS.

primaries from biopsy report alone – await excision reports.

Only one invasive breast primary will count in incidence statistics. Incidence countability is influenced by the following factors:

- If there are metastases, the tumour that relates to these is countable.
- If there are no metastases, the tumour with the largest microscopic size in mm is countable.
- If there are no metastases and size is unavailable, the tumour with the highest grade is countable
- If unable to be determined according to the above guidelines, the first mentioned tumour in the histopathology report is countable.

Registering two or more breast tumours diagnosed on the same day, and which are the patient's first breast cancer in CANIS
Prior to registration, attempt to determine which tumour is countable, and enter this as the first tumour in CANIS.

If the tumours have identical morphology codes, CANIS will automatically refer them to the coordinator to assign incidence countability. The coordinator will force a particular tumour to be "countable" by checking the "countable ignore" button. However, if the morphology codes are different, the tumour that is automatically "counted" by CanIS will be the one with the highest morphology code. The coordinator may choose to make a different tumour countable from the one automatically assigned by CANIS. This is achieved by altering the diagnosis date of the other tumours i.e. dating them one day later (with 'Dated + 1 day' entered in the Tumour Comment tab). See example (045093F).

Breast tumour recurrence
As a general rule, subsequent breast tumours are registered as a separate primary unless there is documentary evidence that it is recurrent disease (research is required to clarify).

Cases diagnosed in WA
If a tumour occurs in the same laterality (side) after 12 months of previous diagnosis, register a new primary unless documentation indicates recurrence.
If a tumour occurs in the opposite side, register

	new primary even if "recurrence" is documented. (WA-specific rule). Cases diagnosed outside of WA If a tumour occurs after 12 months of previous diagnosis - review on case-by-case basis to determine whether to register a new primary.
3.2 Colorectal – multiple invasive tumours Invasive colorectal tumours where each morphology code is identical; or each morphology code differs but codes are in the same Berg group, should be registered as multiple primaries.	Register each invasive tumour as a separate primary, including those diagnosed on the same day. The term "synchronous" may be documented (but is not essential) to enable registration of multiple primaries. **Registering two or more colorectal tumours diagnosed on the same day, and which are the patient's first colorectal cancer in CANIS** Prior to registration, attempt to determine which tumour is countable, and enter this as the first tumour in CANIS. The countable tumour is the most invasive (highest T stage).
3.3 Lung – multiple invasive tumours Invasive lung tumours where each morphology code is identical; or each morphology code differs but codes are in the same Berg group, should be registered as multiple primaries **only** if "synchronous" is documented in histopathology report or other clinical documentation. If "synchronous" is not documented, register as single primary.	Register all "synchronous" (so stated) invasive tumours from each lung as a separate primary, including those diagnosed on the same day. Only one invasive lung primary will count in incidence statistics. Multiple lung primaries may be registered in any order, and the first entered in CANIS will become the countable tumour.
3.4 Thyroid – multiple invasive tumours (Synchronous papillary tumour and follicular tumour are registered as multiple primaries	
4. Same morphology, right and left tumours in paired organs Tumours of different laterality but of the same morphology, diagnosed in paired organs (e.g. kidney) should be registered as separate primaries (unless stated to have originated from a single primary). **Exceptions:** a) Tumour in both ovaries (of the same morphology). Register single primary, use flag "bilateral" in *Laterality* data field b) b) Retinoblastoma in both eyes. Register single primary, use flag "bilateral" in *Laterality* data field	Bilateral renal cell carcinoma of kidneys (C64.9). → Separate primaries are registered, both coded to primary site C64.9

Appendix B - List of cancer type code and descriptions

Catype code	Name	Countable cancer	Cancer category
C00	Lip, gum & mouth	Yes	Invasive malignancies (site-related)
C01	Tongue	Yes	Invasive malignancies (site-related)
C07	Parotid gland	Yes	Invasive malignancies (site-related)
C08	Major salivary glands (not parotid)	Yes	Invasive malignancies (site-related)
C09	Pharynx	Yes	Invasive malignancies (site-related)
C11	Nasopharynx	Yes	Invasive malignancies (site-related)
C15	Oesophagus	Yes	Invasive malignancies (site-related)
C16	Stomach	Yes	Invasive malignancies (site-related)
C17	Small intestine	Yes	Invasive malignancies (site-related)
C21	Anus	Yes	Invasive malignancies (site-related)
C22	Liver & intrahepatic bile ducts	Yes	Invasive malignancies (site-related)
C23	Gallbladder & bile ducts	Yes	Invasive malignancies (site-related)
C25	Pancreas	Yes	Invasive malignancies (site-related)
C30	Nasal cavity/sinuses, middle & inner ear	Yes	Invasive malignancies (site-related)
C32	Larynx	Yes	Invasive malignancies (site-related)
C33	Lung, bronchus & trachea	Yes	Invasive malignancies (site-related)
C37	Thymus	Yes	Invasive malignancies (site-related)
C38	Pleura, heart & mediastinum	Yes	Invasive malignancies (site-related)
C40	Bones, joints & articular cartilages	Yes	Invasive malignancies (site-related)
C47	Nervous system, peripheral/autonomic	Yes	Invasive malignancies (site-related)
C48	Retroperitoneum and peritoneum	Yes	Invasive malignancies (site-related)
C49	Connective, subcutaneous & other soft tissues	Yes	Invasive malignancies (site-related)
C50	Breast	Yes	Invasive malignancies (site-related)
C51	Vulva	Yes	Invasive malignancies (site-related)
C52	Vagina	Yes	Invasive malignancies (site-related)
C53	Cervix uteri	Yes	Invasive malignancies (site-related)
C54	Corpus uteri	Yes	Invasive malignancies (site-related)
C55	Uterus, nos	Yes	Invasive malignancies (site-related)
C56	Ovary	Yes	Invasive malignancies (site-related)
C57	Uterine adnexa & oth. fem gen.	Yes	Invasive malignancies (site-related)
C58	Placenta	Yes	Invasive malignancies (site-related)
C60	Penis	Yes	Invasive malignancies (site-related)
C61	Prostate gland	Yes	Invasive malignancies (site-related)
C62	Testis	Yes	Invasive malignancies (site-related)
C63	Other male genital	Yes	Invasive malignancies (site-related)
C64	Kidney	Yes	Invasive malignancies (site-related)
C65	Bladder & urinary tract	Yes	Invasive malignancies (site-related)
C69	Eye & lacrimal gland	Yes	Invasive malignancies (site-related)
C70	Meninges (cerebral & spinal)	Yes	Invasive malignancies (site-related)
C71	Brain	Yes	Invasive malignancies (site-related)
C72	Spinal cord & cranial nerves	Yes	Invasive malignancies (site-related)
C73	Thyroid gland	Yes	Invasive malignancies (site-related)
C74	Adrenal gland	Yes	Invasive malignancies (site-related)
C75	Endocrine glands (not adrenal)	Yes	Invasive malignancies (site-related)
CRC	Colorectal	Yes	Invasive malignancies (site-related)
CUT	**Skin SCC/BCC**	**NO**	Invasive malignancies (site-related)
NMS	Non melanoma,non-SCC/BCC skin	Yes	Invasive malignancies (site-related)

Catype code	Name	Countable cancer	Cancer category
KAP	Kaposi sarcoma	Yes	Invasive malignancies (site-related)
MEL	Melanoma	Yes	Invasive malignancies (site-related)
MES	Mesothelioma	Yes	Invasive malignancies (site-related)
UNK	Unknown primary site	Yes	Invasive malignancies (site-related)
HCP	Polycyth. rubra vera	Yes	*Lymphohaematopoietic malignancies*
HCS	Myelofibrosis/sclerosis	Yes	*Lymphohaematopoietic malignancies*
HCX	Chronic MPD, NOS	Yes	*Lymphohaematopoietic malignancies*
HCO	Other chronic MPDs	Yes	*Lymphohaematopoietic malignancies*
HIH	Malig. histiocytic/dendritic cell neo.	Yes	*Lymphohaematopoietic malignancies*
HIM	Mast cell malignancies	Yes	*Lymphohaematopoietic malignancies*
HII	Other & U/S immunoproliferative neo.	Yes	*Lymphohaematopoietic malignancies*
HMR	Refractory anaemias/cytopenias	Yes	*Lymphohaematopoietic malignancies*
HMS	Myelodysplastic syndromes	Yes	*Lymphohaematopoietic malignancies*
LLA	Leukaemia, lymphoid, acute	Yes	*Lymphohaematopoietic malignancies*
LLC	Leukaemia, lymphoid, chronic	Yes	*Lymphohaematopoietic malignancies*
LLO	Leukaemia, lymphoid, other/NOS	Yes	*Lymphohaematopoietic malignancies*
LMA	Leukaemia, myeloid, acute	Yes	*Lymphohaematopoietic malignancies*
LMC	Leukaemia, myeloid, chronic	Yes	*Lymphohaematopoietic malignancies*
LMO	Leukaemia, myeloid, other & NOS	Yes	*Lymphohaematopoietic malignancies*
LOT	Leukaemia, other	Yes	*Lymphohaematopoietic malignancies*
LUC	Leukaemia, unclassifiable	Yes	*Lymphohaematopoietic malignancies*
P	Myeloma & plasma cell tumours	Yes	*Lymphohaematopoietic malignancies*
YHO	Lymphoma, Hodgkin	Yes	*Lymphohaematopoietic malignancies*
YNB	Lymphoma, non-Hodgkin, mature B Cell	Yes	*Lymphohaematopoietic malignancies*
YNO	Lymphoma, non-Hodgkin, other / unclassifiable	Yes	*Lymphohaematopoietic malignancies*
YNP	Lymphoma, non-Hodgkin, precursor cell lymphobla	Yes	*Lymphohaematopoietic malignancies*
YNT	Lymphoma, non-Hodgkin, mature T / N-K cell	Yes	*Lymphohaematopoietic malignancies*
YUC	Lymphoma, unclassifiable	Yes	*Lymphohaematopoietic malignancies*
N/A	Not applicable	**NO**	*NA*
nBR	Benign breast	**NO**	*Non-Cancers general*
nCN	Benign CNS	**NO**	*Non-Cancers general*
nCO	Benign colon & rectum	**NO**	*Non-Cancers general*
nCX	Benign cervix	**NO**	*Non-Cancers general*

Catype code	Name	Countable cancer	Cancer category
nOT	Benign other	NO	*Non-Cancers general*
sBR	In situ breast	NO	*Non-Cancers general*
sCO	In situ colon & rectum	NO	*Non-Cancers general*
sCX	In situ cervix	NO	*Non-Cancers general*
sME	In situ melanoma	NO	*Non-Cancers general*
sNM	In situ non melanoma, non-SCC/BCC skin	NO	*Non-Cancers general*
sOT	In situ other	NO	*Non-Cancers general*
sSK	In situ skin SCC/BCC	NO	*Non-Cancers general*
sUB	In situ bladder	NO	*Non-Cancers general*
sUO	In situ other urinary	NO	*Non-Cancers general*
uCN	Uncertain CNS	NO	*Non-Cancers general*
uCO	Uncertain colon & rectum	NO	*Non-Cancers general*
uME	Uncertain melanocytic	NO	*Non-Cancers general*
uNH	Uncertain other non-LHN	NO	*Non-Cancers general*
uNM	Uncertain non melanoma, non-SCC/BCC skin	NO	*Non-Cancers general*
uOV	Uncertain ovary	NO	*Non-Cancers general*
uSK	Uncertain skin SCC/BCC	NO	*Non-Cancers general*
huh	Mast cell neoplasms, unc. malignant potential	NO	*Non-Cancers general*
hun	Ill-def. lymphoprolif. neoplasms, unc. malignancy	NO	*Non-Cancers general*
hup	Immunoglobulin-related neoplasms, unc. malignancy	NO	*Non-Cancers general*

Appendix C - Mesothelioma asbestos exposure code and description

NULL	NULL
R4	Do It Yourself/handyman exposure
W1	ABA workers at Wittenoom
W10	Building/construction and supply industry workers
W10b	Painter/Decorator
W10c	Builder
W10d	Builders Labourer
W10e	Demolition Worker
W11a	Armed Forces (NAVY)
W11c	Armed Forces (AIRFORCE)
W12	Plumbers
W16	Automotive or other brake material exposure
W17	Pipefitters
W19	Boilermakers/cleaners and attendants, welders
W2	Non-ABA workers at Wittenoom
W20	Shipbuilding industry
W21	Power station workers
W22	Electricians/electrical fitters
W25	Engineers
W25g	Heating/Refrigeration Engineer
W3b	Other (non-WA) railways employees
W5	Wharf workers Port Sampson
W9a	Asbestos transport (ROAD)
N	Known no asbestos exposure
R1	Wittenoom resident, not employed
W10a	Carpenter/Cabinet maker
W10g	Bricklayer/Stonemason
W10h	Plasterer
W11	Armed forces
W13	Mining workers non-ABA asbestos
W14	Mining workers non-asbestos or NOS
W15	Other occupational grouping
W23	Telecommunications/Linesmen
W25c	Mechanical Engineer
W9	Asbestos transport/loading (non-wharf workers)
R5	Other residential exposure
U	No known asbestos exposure
U1	Unknown exposure (no information)
U2	Unknown exposure (known exposure - source unknown)
W10f	Fencing Contractor
W18	Laggers/insulation workers
W25a	Marine Engineer
W25b	Electrical Engineer
R2	Wittenoom visitor
R3	Non-wittenoom resident, family contact asbestos
W10i	Building Supply/Hardware
W24	Sheet metal workers
W25e	Civil/Construction Engineer
W3a	Westrail/WAGR/Midland Workshops employees
W4	James Hardie employees
W6	Wharf workers Fremantle
W7	Wharf workers, "other" or unspecified
W8	Bestobell/Ceiloyd/other asb. insulation workers

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