1205.0.55.001

Australian Bureau of Statistics

Information Paper

Cause of Death Certification

Australia

2008

INQUIRIES

www.abs.gov.au

Information Paper

Cause of Death Certification

Australia

2008

Brian Pink
Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS

EMBARGO: 11.30AM (CANBERRA TIME) TUES 25 NOV 2008

ABS Catalogue No. 1205.0.55.001

Produced by the Australian Bureau of Statistics

INQUIRIES

- For further information about these and related statistics, contact Health & Vitals Statistics Unit (QLD) on (Toll Free) 1800 620 963.

CONTENTS

PREFACE

PURPOSE

This booklet is produced for the guidance of Medical Practioners in completing Medical Certificates of Cause of Death.

Accurate cause of death information is important:

- To the public health sector and medical researchers for evaluating and developing measures to improve the health of Australians generally, and
- To family members, now and for the future, to know what caused a loved one's death and to be aware of conditions that may occur in other family members.

Brian Pink
Australian Statistician

INTRODUCTION

WHY IS CAUSE OF DEATH INFORMATION IMPORTANT?

The death certificate completed by medical practitioners, is the major source of Australia's mortality statistics. Cause of Death statistics, and the use of these statistics for demographic and health purposes, supports understanding of Australian society now and in the future. These statistics guide the formulation and monitoring of health and lifestyle policies and impact on the funding of medical and health research. Cause of death information provides insights into the diseases, lifestyle issues and external factors contributing to reduced life expectancy. The Cause of Death collection is one of the oldest and most comprehensive set of health statistics available in Australia.

MORTALITY STATISTICS IN AUSTRALIA

The International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) is used by the ABS to code causes of death. The International Classification of Diseases (ICD), produced by the World Health Organisation (WHO), is the international standard diagnostic classification used to classify diseases and other health problems recorded on many types of health and vital records including death certificates and hospital records (WHO 2007).

Underlying Cause

The underlying cause of death is defined as:

> 'the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury'. (ABS, 2006)

When more than one condition is entered on the death certificate coders select the underlying cause using the coding rules of the ICD. Since its adoption in 1948, statistics on the underlying cause concept have been produced summarising international cause-specific mortality.

Multiple Cause

The leading causes of death have changed over time from infectious and parasitic diseases to chronic and degenerative diseases. As the population ages the focus on chronic diseases and understanding their co-morbidities becomes increasingly important. Coding only a single underlying cause means that other valuable information is lost.

Multiple cause coding is best defined as:

> 'the coding of all morbid conditions, diseases and injuries entered on the death certificate, including those involved in the morbid train of events leading to the death which were classified as either the underlying cause, the intermediate cause, or any intervening causes, and those conditions which contributed to death but were not related to the disease or condition causing death.'

Major benefits of multiple cause coding include:

- an increase in the type and variety of data available for analysis
- an improved product for matching mortality and morbidity data
- an improved product for internationally comparable data
- further details on deaths from external causes (including nature of injuries)

Multiple Cause continued

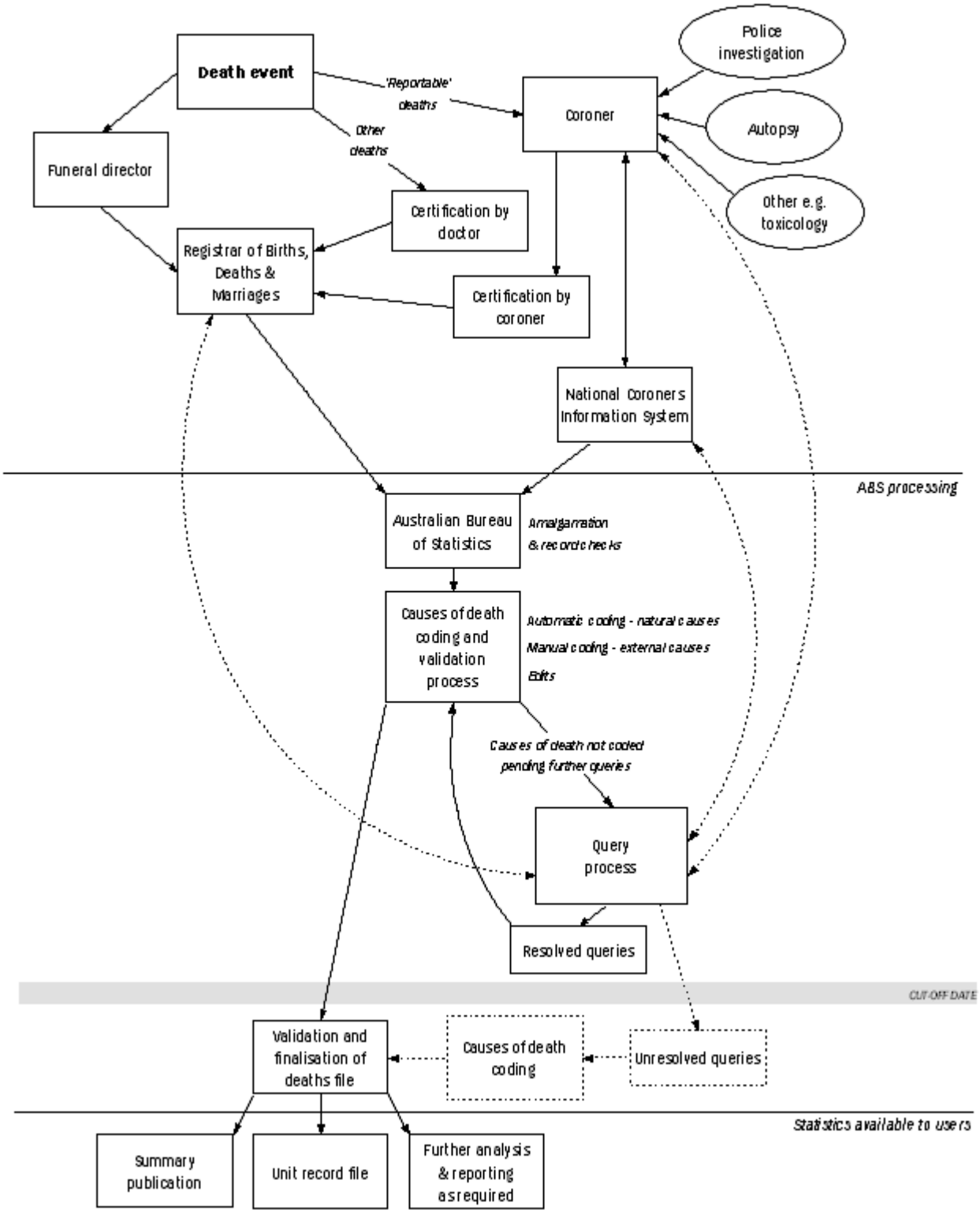
Multiple cause coding allows researchers to take into account additional information. Over four in every five deaths registered in Australia provide more than one condition on the death certificate. Increasing analysis of the contributing causes, as well as traditional analysis of underlying causes, may increase the available knowledge on these conditions and offer alternatives in terms of treatment and/or prevention.

ROLE OF THE MEDICAL PRACTITIONER

The statistical data obtained from the Medical Certificate of Cause of Death is only as accurate and complete as the information on the actual certificate. Medical Practitioners have a vital role to play in the production of high quality mortality data, by ensuring complete, accurate and detailed information is recorded on the certificate.

PROCESSING OF DATA

The following diagram summarises the statistical process used to produce cause of death statistics. It illustrates the different data sources used, and the processes that are applied to ensure quality statistics are available for research and analysis.


Death event
'Reportable' deaths
Other deaths
Police investigation
Coroner
Autopsy
Other e.g. toxicology
Funeral director
Certification by doctor
Registrar of Births, Deaths & Marriages
Certification by coroner
National Coroners Information System
ABS processing
Australian Bureau of Statistics
Amalgamation & record checks
Causes of death coding and validation process
Automatic coding - natural causes
Manual coding - external causes
Edits
Causes of death not coded pending further queries
Query process
Resolved queries
CUT-OFF DATE
Validation and finalisation of deaths file
Causes of death coding
Unresolved queries
Statistics available to users
Summary publication
Unit record file
Further analysis & reporting as required

HOW TO USE THE DEATH CERTIFICATE BOOK

IMPORTANT NOTE

This booklet is not intended as a guide to the legal requirements of death certification, notification of death or of cases that require reporting to the coroner. These requirements differ between jurisdictions. For advice on your legal obligations please contact your state or territory Coroner's Office.

HOW TO USE THIS BOOKLET

It is the aim of this booklet to assist Medical Practitioners in the accurate completion of the Medical Certification of Cause of Death. Sufficiently detailed cause of death information will ensure accurate and timely cause of death data is available to data users.

Medical Practitioners should read this booklet in full and retain it for future reference.

The first section details your responsibilities in completing the Medical Certificate of Cause of Death, what happens to this information and how the data is disseminated and utilised.

The second section of the booklet provides information on common issues that are encountered in completing the death certificate and determining the underlying cause of death. It also provides examples to assist Medical Practitioners in providing the required detail in these common problem areas. Guidance is also provided on how to complete a Perinatal Medical Certificate of Cause of Death.

NOTE

The examples in this booklet provide additional information for the most common issues encountered. Please also refer to the *List of Terms* on pages 28 to 34.

Quick reference guide

A quick reference guide is provided at the back of this booklet. It provides a quick reference for certifiers on the most common issues described in the booklet. A copy of the quick reference guide should be kept with the blank Medical Certificates of Cause of Death in a prominent position in the area(s) where certification takes place, or, with the person responsible for overseeing the death certification process within your organisation (e.g. Mortuary attendant).

ASSISTANCE

This booklet is provided to assist Medical Practitioners to report accurate information to support coding of cause of death. However, if you have any questions or would like further information please contact the Australian Bureau of Statistics (ABS) :

Phone Toll Free: 1800 620 963 or Fax 02 6252 8105

Or Mail to:

AUSTRALIAN BUREAU OF STATISTICS
HEALTH & VITALS STATISTICS UNIT
DATA PROCESSING TEAM
GPO BOX 9817
BRISBANE QLD 4001

REGISTRAR AND CORONER CONTACT INFORMATION

The following information provides the contact details of the office of the Registrar of Births, Deaths and Marriages, and the Coroner's Office in each state and territory.

Where do I obtain blank Medical Certificates of Cause of Death for completion?

Medical Certificates of Cause of Death for completion may be requested from the Registrar of Births, Deaths and Marriages in your state or territory.

New South Wales Registry of Birth, Deaths & Marriages	Ph. 1300 655 236
Victoria Registry of Births, Deaths & Marriages	Ph. 1300 369 367
Queensland Registry of Births, Deaths & Marriages	Ph. 1300 366 430
South Australia Births, Deaths & Marriages	Ph. 08 8204 9599
Western Australia Registry of Births, Deaths & Marriages	Ph. 1300 305 021
Tasmania Registry of Births, Deaths & Marriages	Ph. 1300 135 513
Northern Territory Registrar General's Office	Ph. 08 8999 6119
Australian Capital Territory Registrar General's Office	Ph. 02 6207 0460

Where do I obtain advice on reportable deaths?

If you are in any doubt as to whether a death should be reported to the Coroner, please contact the Coroner's Office in your state or territory for further advice.

New South Wales Office of the State Coroner	Ph: 02 8584 7777
Victoria State Coroner's Office of Victoria	Ph: 03 9684 4380
Queensland Office of State Coroner	Ph: 1300 304 605
South Australia State Coroner	Ph: 08 8204 0600
Western Australia Coroner's Court of Western Australia	Ph: 08 9425 2900
Tasmania Coronial Division, Magistrates Court of Tasmania	Ph: 03 6233 3257
Northern Territory Coroner's Office	Ph: 08 8999 7770
Australian Capital Territory Coroner's Court	Ph: 02 6207 1754

SHOULD THE DEATH BE REFERRED TO A CORONER?

What constitutes a 'reportable death' varies by jurisdiction. In general, a death must be reported to a coroner in the following instances:

- where the person died unexpectedly and the cause of death is unknown
- where the person died in a violent or unnatural manner
- where the person died during or as a result of an anaesthetic
- where the person was 'held in care' or in custody immediately before they died
- where a doctor has been unable to sign a death certificate giving the cause of death
- where the identity of the person who has died is not known.

It is the role of the coroner to investigate the circumstances surrounding all reportable deaths and to establish wherever possible the circumstances surrounding the death, and the cause(s) of death. The coroner may or may not require a full autopsy to be completed to assist with a decision regarding the medical cause of death. Whether or not such an examination is undertaken, the coroner will also be provided with sufficient information from a police investigation such that the circumstances of the death, so far as are known or can be interpreted, are available to assist with a determination of the legal cause of death relating to the intent.

If you are unsure whether a death should be reported to the Coroner, please contact the Coroner's Office in your state or territory for further advice. Please see page 5 for contact details.

MEDICAL CERTIFICATES OF CAUSE OF DEATH

The Standard Medical Certificate of Cause of Death

The Medical Certificate of Cause of Death is recommended by the World Health Organisation for international use. This general format is used by all Australian states and territories, although some local variations will occur. (e.g. an extra line, Part 1(e) may appear on some forms). The Medical Certificate of Cause of Death also includes demographic information used in collating statistics on causes of death. The extract below shows only the cause of death component of the certificate.

INTERNATIONAL MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*)..... due to (or as a consequence of)	.....
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*)..... due to (or as a consequence of)	.....
	(*c*)..... due to (or as a consequence of)	.....
	(*d*).....	.....
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	.....	.....
	.....	.....

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

Medical Certificate of Cause of Perinatal Death

The World Health Organisation (WHO) recommends use of a separate Medical Certificate of Cause of Perinatal Death. A copy of the form recommended by WHO is shown on the following page. It seeks information on maternal obstetric history, with a view to identifying those conditions which require the greatest clinical monitoring to avoid the occurrence of perinatal deaths. The process of recording a sequence of events leading to the death is not used for the Medical Certificate of Cause of Perinatal Death. Please note that each state and territory uses a slightly different version of this form.

In all states and territories, it is a legal requirement that the Medical Certificate of Cause of Perinatal Death be completed in respect of a child not born alive, of at least *20 weeks gestation* or *400 grams weight*, or a live born child who dies within 28 days of birth.

A sample Medical Certificate of Cause of Perinatal Death follows.

MEDICAL CERTIFICATE OF CAUSE OF PERINATAL DEATH

To be completed in respect of:

(i) a child not born alive, of at least 20 weeks gestation or 400 grams weight:

(ii) a live born child dying within twenty-eight days after birth:

Note: Please answer all question and tick relevant boxes

A. Particulars related to Mother

1. Full name..... 2. Age.....years

3. Address of usual residence.....

4. Number of previous pregnancies resulting in

All issue live born	|__|__|
One or more issue born dead	|__|__|
Abortion	|__|__|

5. Outcome of last previous pregnancy

All issue live born	☐
One or more issue born dead	☐
Abortion	☐

Date of last previous pregnancy __/__/__

Current pregnancy:

6. Estimated duration of pregnancy was.....completed weeks from first day of last menstrual period to date of delivery.

7. Antenatal care two or more visits

Yes	☐
No	☐
Not known	☐

8. Method of delivery

Spontaneous	☐
Forceps delivery	☐
Forceps and rotation	☐
Vacuum extractor	☐
Caesarean section	☐
Other surgical or instrumental	☐

9. Presentation

Vertex	O.A.	O.P.	☐
Brow			☐
Breech			☐
Face			☐
Shoulder			☐
Transverse			☐
Other (specify).....			☐

10. Attendant at birth

Doctor	☐
Trained midwife	☐
Other trained person (specify).....	☐
Other (specify).....	☐

B. **Particulars relating to Child**

11. Name if given..... 12. Sex.....

13. Place of death..... 14. Birthweight was..... grams.

15. This birth was: Single ☐ First twin ☐ Second twin ☐ Other multiple ☐

16. For child born alive: Time and date of birth was.....a.m./p.m. on.....Date of death.....
After delivery, heartbeat ceased at.....a.m./p.m. on.....(date) Age.....

17. For child not born alive, time and date of delivery was.....a.m./p.m. on.....(date).

18. For child not bor n alive, heartbeat ceased (a) before labour ☐ (b) during labour but before delivery ☐
(c) before delivery but not known whether before or during labour ☐

19. If heartbeat ceased before labour commenced, please estimate how long before:..... .....days .....hours

20. It is not known whether heartbeat ceased before or after delivery ☐

---

21. **CAUSES OF DEATH** — Approximate interval between onset and death, If known

---

(a) Main disease or condition in fetus or infant

(b) Other diseases or conditions in fetus or infant

(c) Main maternal disease or condition affecting fetus or infant

(d) Other maternal diseases or conditions affecting fetus or infant

---

(e) Other relevant circumstances

---

22. Certified cause of d eath has been confirmed by autopsy ☐ Autopsy information may be available later ☐
Autopsy not being held ☐

23. Post mortem carried out on.....

24. Post mortem ordered or authorised by..... Coroner

25. If born alive, last attended by me on..... .....

I certify that, to the best of my information and belief, the particulars set out above are correct.

Signature..... Prof. title.....

Surname (block letters).....

Address.....

HOW DO I OBTAIN A BLANK MEDICAL CERTIFICATE OF CAUSE OF DEATH FOR COMPLETION ?

Blank Medical Certificates of Cause of Death and Medical Certificate of Cause of Perinatal Death for completion may be requested from the Registrar of Births, Deaths and Marriages in your state or territory. See page 5 for contact details.

Note: Not all states have a separate Medical Certificate of Cause of Perinatal Death. For those states the Medical Certificate of Cause of Death should be used to certify a perinatal death. The advice provided in the following pages should be taken into consideration when completing the details of a perinatal death.

RECORDING OF DEATHS INFORMATION

As a Medical Practitioner you are required to lodge Medical Certificates of Cause of Death and Medical Certificates of Cause of Perinatal Death with your state or territory Registrar of Births, Deaths and Marriages. The quality of the statistics on causes of death depends on the quality of the information on the death certificate, which should be YOUR BEST MEDICAL OPINION as to the sequence of events leading to death.

What happens to the information on the death certificate?

After registration of the death, the Registrar General passes the information from the death certificates to the ABS. Staff in the Health & Vitals National Statistics Unit code the causes of death according to the World Health Organisation's (WHO) International Statistical Classification of Diseases and Related Health Problems - 10th Revision (ICD-10).

The ABS assign an ICD-10 code to every condition stated on the death certificate. Using the coding rules, ABS staff will assign an Underlying cause of death. In a large proportion of deaths, a sequence of morbid events will have led to death. From the standpoint of prevention, the objective is to break the sequence as early as possible, hence information on every condition is required.

The statistical data produced by the ABS is used by government bodies, researchers, clinicians, educational institutions and many other organisations. The deaths data is processed on a calendar year basis and the ABS publishes data on doctor certfied deaths in *Causes of Death, Australia: Doctor Certified Deaths, Summary Tables (3303.0.55.001)* and summary data on the complete dataset, inlcuding coroner certified deaths, is published in *Causes of Death, Australia (3303.0)*. Special tabulations are also available upon request from the ABS.

How much detail is required?

This booklet highlights groups of diseases and conditions for which the detail required for coding is often lacking. As well as the guides for common issues, a detailed list of medical terms where detail is required for assigning an underlying cause of death, can be found on pages 28 to 34.

This booklet contains guides to assist certifiers in providing quality information in areas where common issues occur. The use of these guides will increase the quality of causes of death data, expedite the processing of death certificates and aggregation of cause of death data.

There is a quick reference guide located at the back of this booklet. Please print and keep this quick reference guide with the Medical Certificate of Cause of Death forms for quick and easy reference by certifiers. The quick reference guide is also available as a stand alone document on the ABS website www.abs.gov.au.

Legibility

Handwritten details can be difficult to distinguish and may lead to misinterpretation and error. Please avoid abbreviations and PRINT CLEARLY in BLOCK LETTERS.

The following are examples of terms which are often difficult to distinguish:

cardio/cerebro
congenital/congestive
coronary/cerebral
empyema/emphysema
hypotension/hypertension
infection/infarction
silicosis/scoliosis
valvular/vascular

ABORIGINAL OR TORRES STRAIT ISLANDER INFORMATION

The following question is asked to establish the deceased's Aboriginal and Torres Strait Islander status:

"Was the deceased of Aboriginal or Torres Strait Islander origin?"

The standard responses to use are:

☐ No

☐ Yes, Aboriginal

☐ Yes, Torres Strait Islander

For deceased persons of both Aboriginal and Torres Strait Islander origin, both 'Yes' boxes should be marked.

If you are unable to determine the status, the response to the Aboriginal or Torres Strait Islander status question is considered as incomplete. Responses that are incomplete must not be recorded as 'No'

Why is this information needed?

The capacity of Commonwealth, State and Territory governments to report on issues such as the health status, service use and access to services by Indigenous people is reliant on being able to accurately identify Indigenous clients.

Indigenous deaths information allows us to compare mortality rates, leading causes of death and life expectancy for the Aboriginal and Torres Strait Islander population with those for the Australian population as a whole.

This information is needed to monitor and understand the health of different population groups in Australia and improve the health of groups with the greatest health disadvantages. For example, information about age is used to assess whether particular age groups have greater health needs than others. After identifying at-risk groups within the population, remedial policies can be formulated and funds allocated more appropriately. Services can be customised to address the areas of most need.

The deceased's background may have diagnostic significance and should be established as part of routine medical history taking. Correct identification will assist policy makers to develop quality and targeted population health strategies for Indigenous people such

Why is this information needed? continued

as immunisation programs, Indigenous health check items, preventative health care and chronic disease management. It will also assit researchers to identify areas of medical health in which Indigenous patients may be more at risk.

How can I answer the question?

The Indigenous origin question should be asked of the next of kin in the first instance. If no next of kin has been identified or is available, then the question should be asked of the broader family. If this information is not able to be obtained from either of these sources, another person who knew the deceased well may be asked.

It is not possible to determine whether the deceased is of Aboriginal or Torres Strait Islander origin without either asking someone who knew the deceased or checking administrative records. Assumptions should not be made based on appearance, family name or on prior knowledge of the person's family history or background

If the information is unable to be obtained from someone who knew the deceased, prior records of the deceased e.g. medical records, hospital admission records etc.) should be reviewed.

Make sure that the information you transcribe is correct. If possible verify the information using other sources.

Is it discriminatory to ask the question?

No. The information is being collected for statistical purposes to monitor the health of the Aboriginal and Torres Strait Islander community, and contributes to decisions relating to planning and improving services. The information will also help to provide accurate estimates and projections of the size of the Aboriginal and Torres Strait Islander population. The question should be asked of every person, and should be completed the same as any other question on the form.

What about confidentiality?

All personal information is protected by a strict Privacy Act—the use of personal information for reasons other than the purpose for which it was collected is strictly prohibited unless consent is given. Aboriginal or Torres Strait Islander status information is used in a de-identified form to improve information on the health of Aboriginal or Torres Strait Islander and non-Indigenous Australians.

HOW TO COMPLETE THE MEDICAL CERTIFICATE OF CAUSE OF DEATH

The following is a guide to completing Parts I and II of the Medical Certificate of Cause of Death.

Part I, Line (a), Disease or condition directly leading to death

Enter on line I(a) the direct cause of death ie. the disease or complication which led directly to death. There must always be an entry on line I(a). This condition may be the only condition reported in Part I of the certificate, but only if it was not due to, or did not arise as a consequence of, any other disease or injury that occurred before the direct cause of death. That is, the condition entered on line 1(a) should have a shorter duration than any diseases mentioned in Part1(b), (c) and (d).

If conditions such as cardiac arrest, respiratory failure, chronic renal failure. are entered on line I(a) always enter the underlying cause(s) on I(b), I(c) and 1 (d) to indicate the sequence of events leading to death. Always use consecutive lines, never leave blank lines in the sequence.

Part I, Lines (b), (c) and (d), Antecedent causes

If the direct cause of death on line I(a) was due to, or arose as a consequence of another disease, this disease should be entered on line I(b). If the condition entered on line I(b) was itself due to another condition or disease this other condition should be reported on line I(c). Similarly, a condition antecedent to that reported on line I(c) should be reported on line I(d). Enter any additional antecedent conditions in Part I(d).

A condition should be regarded as being antecedent not only in an aetiological or pathological sense, but also where it is believed that this condition prepared the way for the direct cause by damage of tissues or impairment of function, even after a long interval.

Occasionally two independent diseases may be thought to have contributed equally to the fatal issue, and in such circumstances they may be entered on the same line. If this is necessary please ensure that the durations of the diseases are clearly stated for each disease.

Part II, Other significant conditions

After completing Part I, the certifier must consider whether there were any other significant conditions which, though not included in the sequence in Part I, contributed to the fatal outcome. If so, these conditions should be entered in Part II. That is, diseases that though they did not directly cause the death prevented the person from recovering from or overcoming the disease. (e.g. chronic conditions such as Diabetes, Ischaemic Heart Disease, Dementia, Chronic Obstructive Airways Disease, previous history of Breast Cancer).

For example :

Part I

(a) Renal failure 1 year;
(b) Nephritic syndrome 3 years;
(c) Diabetes mellitus 20 years;

Part II

Ischaemic right foot 3 months.
Duration between onset and death

Duration between onset and death

The duration between the onset of each condition entered on the certificate and the date of death, should be entered in the column provided. Where the time or date of onset is not known, the best estimate should be made. The unit of time should be entered in each case.

In a correctly completed certificate, the duration entered for I(a) will never exceed the duration entered for the condition on line I(b) or I(c) or I(d); nor will the duration for I(b) exceed that for I(c) or I(d).

HOW TO COMPLETE THE MEDICAL CERTIFICATE OF CAUSE OF PERINATAL DEATH

The Medical Certificate of Cause of Perinatal Death provides five sections for the entry of causes of perinatal deaths, labelled (a) to (e). In sections (a) and (b) enter the diseases or conditions of the infant or fetus. The single most important or main condition in the child should be entered in section (a) and the remainder, if any, in section (b). "The most important or main condition" is the pathological condition which, in the opinion of the certifier made the greatest contribution to the death of the infant or fetus. The mode of death, eg. heart failure, asphyxia, anoxia, should not be entered in section (a) unless it was the only fetal or infant condition known. This also holds true for prematurity.

In sections (c) and (d), the certifier should enter all diseases or conditions in the mother which, in his or her opinion had some effect on the infant or fetus. The most important one of these should be entered in section (c) and the others, if any, in section (d). Section (e) is provided for the reporting of any other circumstances which the certifier considers to have a bearing on the death, but which cannot be described as a disease or condition of the infant or the mother. Examples of this might be delivery in the absence of an attendant or involvement in a motor vehicle accident.

In certifying causes of perinatal deaths, please take careful note of the following points:

Congenital malformations

Please specify the organ and part of organ involved, unless this is obvious from the name of the malformation. Avoid the use of eponyms wherever possible.

Birth injuries

Please state the organ involved, type of injury (eg. haemorrhage, tear), under "conditions in fetus or infant", and the cause of the injury (eg. abnormality of pelvis, malposition of fetus, abnormal forces of labour), under "maternal diseases or conditions".

Prematurity

If possible, please state the complication directly causing death eg. pulmonary immaturity.

Conditions in the mother

Please indicate whether any disease condition present in the mother was related to the pregnancy. For example, conditions such as hypertension and pyelonephritis should be qualified as to whether they arose during pregnancy, or were present before pregnancy.

COMMON ISSUES

INTRODUCTION

This section provides information on common issues that are encountered in completing the death certificate and determining the underlying cause of death. It also provides examples to assist Medical Practitioners in providing the required detail in these common areas of difficulty.

GENERAL CONDITIONS AND DISEASES

The examples in this booklet provide additional information for the most common problems encountered. Please also refer to the *List of Terms* on pages 28 to 34.

Neoplasms

Neoplasms are classified according to whether they are benign or malignant, and by site. Hence the terms 'neoplasm', 'growth' and 'tumour' should not be used without qualification as to whether malignant or benign, and the primary site should always be indicated, even though the primary growth may have been removed long before death. If a secondary growth is included in the sequence of events leading to death, state the site of the secondary growth due to the site of the primary growth. If the primary site is unknown, this MUST be stated on the certificate.

You must clearly identify the malignancy, exact site and behaviour of all neoplasms.

- Tumour/Growth - Identify site and as benign, malignant primary, malignant secondary or unknown behaviour.
- Neoplasm - Identify the malignancy, exact site and behaviour.
- Metastatic - Identify whether metastatic TO (Secondary) or metastatic FROM (Primary).
- Secondary - Identify primary site or document Primary as Unknown.

If the site of any primary neoplasm is unknown, "Primary unknown" MUST be documented on the Medical Certificate of Cause of Death.

The principles of site specificity, and primary unknown, apply to all malignant neoplasms, not just those listed in the following table. The primary neoplasm sites listed below require one of the subset qualifying terms, to provide necessary detail for identification of the underlying cause of death.

Neoplasms continued

Example 1: A female aged 54 years admitted to hospital for palliative care due to secondary adenocarcinoma of the liver. The secondary growth occurred due to the primary adenocarcinoma of the lung and, even though the primary was removed and has not reoccurred, it will be selected as the underlying cause of death.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) SECONDARY ADENOCARCINOMA OF LIVER due to (or as a consequence of)	1 YEAR
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) PNEUMOECTOMY due to (or as a consequence of)	3 YEARS
	(*c*) PRIMARY ADENOCARCINOMA OF LOWER LOBE LUNG due to (or as a consequence of)	3.5 YEARS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*) ISCHAEMIC HEART DISEASE	10 YEARS
*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc		

Neoplasms continued

Example 2. A similar cases as the example above, however the primary site is unknown.

The precise site of the primary neoplasm should always be indicated. See the examples in the following list. The histology of the neoplasm should also be stated if known. For neoplasms of bone, where the histology is unknown, the kind of tissue of origin (ie. marrow, osseous tissue) should be indicated.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) SECONDARY ADENOCARCINOMA OF LIVER due to (or as a consequence of)	1 YEAR
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) PRIMARY UNKNOWN due to (or as a consequence of)	OVER 1 YEAR
	(*c*) due to (or as a consequence of)	
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*)	
	ISCHAEMIC HEART DISEASE	10 YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

In the following table is a list of sites and the specificity required for coding neoplasms as underlying cause of death. This list highlights those neoplasms that cause the most classification problems and is not exhaustive. Certifiers should be as specific as possible when certifying the site of any neoplasm, not just those sites listed below. Where specific site detail is not available, identify this by documenting the detail as Unknown. eg. 'malignant carcinoma of intestine site unknown'.

HOW SPECIFIC SHOULD YOUR RECORDING OF A NEOPLASM SITE BE?

If the site of any primary neoplasm is unknown, "Primary unknown" **MUST** be documented on the Medical Certificate of Cause of Death.

The principles of site specificity, and primary unknown, apply to all malignant neoplasms, not just those listed below. The primary neoplasm sites listed below require one of the subset qualifying terms, to provide necessary detail for identification of the underlying cause of death.

Lip	**Mouth**	**Pharynx**	**Oral**	**Skin**
lower	cheek (mucosa)	nasopharynx	tongue	vulva
upper	vestibule	hypopharynx	salivary gland	vagina
commissure	retro molar	oropharynx	palate	penis
skin of lip	overlapping	tonsil	gum	scrotum
overlapping	unknown	pyriform sinus	overlapping	melanoma (by site)
unknown		overlapping	unknown	other specified site (by site)
		unknown		unknown

Liver	**Bowel**	**Uterus**	**Endocrine Gland**	**Adrenal Gland**
sarcoma	large (colon)	cervix uteri	parathyroid	medulla
angiosarcoma	small	corpus uteri	pituitary	cortex
hepatoblastoma	colon with rectum	ligament	craniopharyngeal	unknown
hepatocellular	sigmoid colon	overlapping	pineal	
intrahepatic duct	unknown	unknown	aortic body	
unknown			pluriglandular	
			unknown	

Respiratory	**Lung**	**Breast**	**Urinary Organs**	**CNS**
nasal cavity	upper lobe	upper inner quadrant	kidney	meninges
middle ear	lower lobe	lower inner quadrant	ureter	brain
accessory sinus	middle lobe	upper outer quadrant	bladder	"specific" ventricleuterine
mediastinum	main bronchus	lower outer quadrant	urethra	brain stem
trachea	overlapping	axillary tail	paraurethral gland	cranial nerve
thymus	unknown	central portion	overlapping	spinal cord
bronchus	primary	nipple and areola	unknown	cauda equina
larynx	secondary	overlapping		overlapping
overlapping		unknown		unknown
unknown				primary
				secondary

Neoplasms continued

If the required detail is unknown, please document this on the Medical Certificate of Cause of Death

Medical Certification of Cause of Death should, at all times, be your BEST MEDICAL OPINION.

Rare and trivial conditions

TRIVIAL CONDITIONS

On occasion, less serious or non-specific conditions are reported alone on a certificate without mention of a more serious condition. Or they are reported in the sequence as the underlying cause. For example, cardiac arrest may be reported as due to frailty on a certificate. Both of these conditions are considered to be non-specific or trivial conditions. It is important that these types of conditions are not entered alone on the certificate or as the underlying cause (i.e. they should not be the last cause mentioned in the sequence of events).

Rare and trivial conditions continued

TRIVIAL CONDITIONS *continued*

Another common term provided as the only cause of death is Natural Causes. It is important that the types of conditions that make up the natural causes are listed on the certificate.

Conditions that are considered as trivial or non-specific are provided in the list below. This list is not exhaustive but simply highlights the most common trivial conditions reported alone or as the underlying cause.

Anoxia	Anuria	Ascites
Bradycardia	Cardiac arrest	Collapse
Coma	Congenital Malformations	Constipation
Cough	Diarrhoea	Dysphagia
Fever	Frailty/Debility	Haemoptysis
Haemorrhage	Incontinence	Infection
Mass (intestinal, neck, head)	Mental Retardation	Multi-organ failure
Natural Causes	Nausea and Vomiting	Old Age
Pain	Paralysis	Rash
Respiratory Failure	Senility	Syncope
Tachycardia	Transient Ischaemic Attack	Weight Loss

Rare and trivial conditions continued

RARE CONDITIONS

It is accepted that on occasion a medical practitioner will have responsibility for certifying a death that is considered a rare occurrence in Australia. In order to ensure high quality data, the ABS reviews all records that are considered to be of a rare or improbable nature in Australia. In order to assist this process it is important that when certifying deaths of this nature that additional information be provided on the certificate to confirm that condition has been proven histologically or other extensive medical testing. As an example, if the disease that caused death is Creutzfeldt-Jakob Disease, then the addition of the term histologically proven will ensure accurate code assignment.

The list below, whilst not exhaustive provides examples of the types of conditions that are considered to be rare or impossible in Australia.

Acute poliomyelitis	Anthrax	Botulism
Creutzfeldt-Jakob Disease	Diphtheria	Q fever
Rabies	Smallpox	Typhoid fever
Yellow Fever		

Infectious and parasitic diseases

Where possible, give the name of the causative agent, if the disease name does not imply this. The site of the infection should also be provided (e.g. urinary tract, respiratory tract). Where the causative organism is unknown, document this on the death certificate as Organism Unknown.

PRIMARY INFECTIONS

Certifiers should identify whether a primary infection was bacterial or viral, and the causative organism, if known.

Sepsis and Septicaemia

Certifiers should document the site of the original infection and the causative organism on the death certificate where septicaemia is the direct cause of death.

Infectious and parasitic diseases continued

***Sepsis and Septicaemia** continued*

Example 3: Here the site of the original infection and the causative organism have been clearly identified.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) SEPTIC SHOCK due to (or as a consequence of)	1 YEAR
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) STAPHYLOCOCCUS AUREUS SEPSIS due to (or as a consequence of)	3 YEARS AGO
	(*c*) STAPHYLOCOCCUS AUREUS MENINGITIS due to (or as a consequence of)	3.5 YEARS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*)	
	RENAL TRANSPLANT	6 YEARS
	TYPE II DIABETES	15 YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

Example 4: The certifier has identified that no further information is available.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) SEPTICAEMIA due to (or as a consequence of)	1 WEEK
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) URINARY TRACT INFECTION due to (or as a consequence of)	MONTHS
	(*c*) ORGANISM UNKNOWN due to (or as a consequence of)	MONTHS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*)	
	TYPE II DIABETES	6 YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

Pneumonia and Bronchopneumonia

When a death is due to pneumonia or bronchopneumonia please identify if the condition is primary hypostatic or due to aspiration. State the cause of any underlying condition that led to the pneumonia and identify the causative organism. If the pneumonia has been caused by debility or inactivity please state the condition leading to the inactivity or debility.

Example 5: A male aged 64 years admitted to hospital with an arteriosclerotic cerebral infarction. Transferred to rehabilitation where he developed hypostatic pneumonia. In ICU sputum cultured Klebsiella pneumoniae and the patient died shortly after. As the arteriosclerosis was the condition beginning the sequence of morbid events, this will be selected as the underlying cause of death.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) KLEBSIELLA PNEUMONIAE due to (or as a consequence of)	1 WEEK
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) INACTIVITY due to (or as a consequence of)	2 MONTHS
	(*c*) CEREBRAL INFARCTION due to (or as a consequence of)	2 MONTHS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*) ARTERIOSCLEROSIS	MANY YEARS
	ISCHAEMIC HEART DISEASE	10 YEARS
	ALCOHOLISM	20 YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

Pregnancy

If the deceased was pregnant or died within 42 days post partum this should also be included on the death certificate, even if the pregnancy was unrelated to the cause of death. It is also important to record if the deceased had been pregnant between 43 days and 1 year prior to death.

Example 6: A female aged 24 years, pregnant for 4 months, was admitted to hospital with sudden onset of hemiplegia. Her history revealed that she had suffered from rheumatic fever at the age of 10 years, and a diagnosis of mitral stenosis was made. On her second day in hospital the patient died. The pregnancy contributed to death, but is not related to the pre-existing condition, it should be reported in Part II of the certificate.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) HEMIPLEGIA due to (or as a consequence of)	2 DAYS
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) CEREBRAL EMBOLISM due to (or as a consequence of)	2 DAYS
	(*c*) MITRAL STENOSIS due to (or as a consequence of)	14 YEARS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*) RHEUMATIC FEVER (INACTIVE)	
	PREGNANT	4 MONTHS
*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc		

Pulmonary Embolism

It is rare for pulmonary embolism to occur spontaneously in anyone below 75 years of age, and there are a large variety of underlying causes of this condition. Where Pulmonary Embolism is the direct cause or mode of death it should be entered as such in Part 1a of the death certificate, with its underlying cause(s) sequenced in the 'due to' relationship on the lines below it.

Operations

In most jurisdictions, death during or following an operation must be reported to the Coroner for investigation. See also: Should the Death be Referred to the Coroner?

When entering a post operative complication, or a complication of a medical procedure, always include the condition for which the operation was performed and when the operation was performed.

Example 7: A male aged 54 years admitted to hospital for surgery to remove the colon due to carcinoma of the sigmoid colon. The patient developed a postoperative deep vein thrombosis. A pulmonary embolism later developed and the patient died shortly after. As the carcinoma of the sigmoid colon was the condition necessitating the surgery, this will be selected as the underlying cause of death.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) PULMONARY EMBOLISM due to (or as a consequence of)	1 HOUR
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) COLECTOMY due to (or as a consequence of)	3 DAYS
	(*c*) PRIMARY CARCINOMA OF SIGMOID COLON due to (or as a consequence of)	18 MONTHS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*) ARTERIOSCLEROSIS	MANY YEARS
	ISCHAEMIC HEART DISEASE	10 YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

Renal Failure

Where renal failure is entered on to the Medical Certificate of Cause of Death, please identify if the renal failure was acute, chronic or end-stage, the underlying cause and type of renal failure if known.

Renal Failure continued

Example 8: Though serious and debilitating the renal failure was as a consequence of the sclerosis which was a direct consequence of the long history of IDDM.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	CAUSE OF DEATH	Approximate interval between onset and death
*Disease or Condition directly leading to death**	(*a*) END STAGE RENAL FAILURE due to (or as a consequence of)	1 WEEK
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) FOCAL GLOMERULAR SCLEROSIS due to (or as a consequence of)	2 YEARS
	(*c*) IDDM due to (or as a consequence of)	25 YEARS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*)	
	CIGARETTE SMOKER	10 YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

Smoking, Alcohol and Drugs

If the use of alcohol, tobacco or any other drug contributed to death, this should be reported on the certificate. Also indicate if the deceased was addicted to any substance.

Example 9: Here alcohol addiction contributed to the death, but is not related to the coronary occlusion and is documented in Part II of the certificate.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	CAUSE OF DEATH	Approximate interval between onset and death
*Disease or Condition directly leading to death**	(*a*) CORONARY OCCLUSION due to (or as a consequence of)	IMMEDIATE
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) CORONARY ATHEROSCLEROSIS due to (or as a consequence of)	5 YEARS
	(*c*) due to (or as a consequence of)	
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*)	
	EMPHYSEMA	20 YEARS
	ALCOHOL ADDICTION	MANY YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

EXTERNAL CAUSES OF DEATH

Reporting accidental deaths and injuries

Injuries should never be reported on the certificate without the circumstances that lead to the injury. In most instances deaths occurring as the result of an accident must by law be referred to the Coroner. When a medical practitioner has occasion to issue a Medical Certificate of Cause of Death relating to a death resulting from an accident, the circumstances of the accident as well as the injuries incurred need to be reported. For example, "fractured skull with cerebral haemorrhage due to accidental fall on stairs at home", or "fractured neck of femur due to fall from bed in nursing home". Please include all injuries sustained and avoid using non-specific terms such as multiple injuries.

If a death is due to late effects of a previous injury, please state the circumstances of this injury eg. bronchopneumonia due to paraplegia due to motor vehicle accident - 3 years ago.

Example 10: Female aged 80 years, fell on stairs at home and sustained a fracture of the neck of the left femur. She had an operation for insertion of a pin the following day. Four weeks later her condition deteriorated, she developed hypostatic pneumonia and died two days later.

MEDICAL CERTIFICATE OF CAUSES OF DEATH

PART 1	**CAUSE OF DEATH**	**Approximate interval between onset and death**
*Disease or Condition directly leading to death**	(*a*) TERMINAL HYPOSTATIC PNEUMONIA due to (or as a consequence of)	2 DAYS
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(*b*) INSERTION OF PIN FOR FRACTURE REPAIR due to (or as a consequence of)	3 WEEKS
	(*c*) FRACTURED NECK OF FEMUR due to (or as a consequence of)	3 WEEKS
PART II *Other significant conditions* contributing to the death, but not related to the disease or condition causing it.	(*d*) FELL WHILE VACUUMING AT HOME	3 WEEKS
	GENERAL FRAILTY	3 YEARS

*This means the disease, injury or complication which caused the death NOT ONLY for example, the mode of dying, such as "heart failure, asthenia"etc

ii. Place of Occurrence

ICD-10 coding requires a place of occurrence code for selected external causes of death. The ABS needs the certifier to indicate on the form the place where the injury which led to death occurred eg. at home, on a farm, industrial building, on highway etc.

C. PERINATAL DEATHS

i. Prematurity and Premature Labour

Prematurity and premature labour are not detailed enough to be assigned as an underlying cause of perinatal death. Please identify the underlying cause on the Medical Certificate of Cause of Perinatal Death, or indicate that the cause is unknown.

Example 1. The mother whose previous pregnancies had ended in spontaneous abortions at 12 and 18 weeks, was admitted when 24 weeks pregnant, in premature labour. There was spontaneous delivery of a 700 gram infant who was treated in an Intensive Care Nursery, but died during the first day of life. Chest x-ray had shown dense lung fields consistent with severe hyaline membrane disease.

CAUSES OF DEATH	
(a) Main disease or condition in fetus or infant	**HYALINE MEMBRANE DISEASE (RESPIRATORY DISTRESS SYNDROME)**
(b) Other disease or condition in fetus or infant	**EXTREME IMMATURITY**
(c) Main maternal disease or condition affecting fetus or infant	**PREMATURE LABOUR**
(d) Main maternal disease or condition affecting fetus or infant	**PREVIOUS SPONTANEOUS ABORTIONS**
(e) Other relevant circumstances	

ii. Diabetes Mellitus

Where diabetes is documented on the Medical Certificate of Cause of Perinatal Death, please state whether the diabetes is a pre-existing condition or gestational diabetes. If diabetes is pre-existing please indicate if they are IDDM or NIDDM.

Example 2. A known diabetic was controlled during her first pregnancy with difficulty. She developed megaloblastic anaemia at 32 weeks. Labour was induced at 38 weeks. There was spontaneous delivery of an infant weighing 3200g. The baby developed hypoglycaemia, and had a loud murmur present with a large heart noted on chest x-ray. Echocardiography showed the presence of a truncus arteriosus. The baby died on the second day of life.

CAUSES OF DEATH	
(a) Main disease or condition in fetus or infant	**TRUNCUS ARTERIOSUS**
(b) Other disease or condition in fetus or infant	**HYPOGLYCEAEMIA**
(c) Main maternal disease or condition affecting fetus or infant	**DIABETES MELLITUS - IDDM**
(d) Main maternal disease or condition affecting fetus or infant	**MEGOLABLASTIC ANAEMIA**
(e) Other relevant circumstances	

iii. Conditions in the mother affecting the fetus or infant

The main condition in the mother that has affected the fetus or infant should be entered on line (c) of the Medical Certificate of Cause of Perinatal Death, and other conditions affecting the fetus or infant on line (d). Any condition in the mother that is relevant to the circumstances of the delivery or death of the fetus or infant should be entered on line (e).

iii. Conditions in the mother affecting the fetus or infant continued

Example 3:. The patient was a 30 year old woman with a healthy four year old boy. She had a normal second pregnancy apart from hydramnios. Ultrasound examination of the fetus at 36 weeks noted the presence of anencephaly. Labour was induced. A stillborn anencephalic fetus weighing 1500g was delivered.

As there was no condition in the mother which affected the development of the fetus, lines (c) and (d) remain blank.

CAUSES OF DEATH	
(a) Main disease or condition in fetus or infant	**ANENCEPHALY**
(b) Other disease or condition in fetus or infant	-
(c) Main maternal disease or condition affecting fetus or infant	-
(d) Main maternal disease or condition affecting fetus or infant	-
(e) Other relevant circumstances	**HYDRAMNIOS**

Example 4:. A primigravida aged 26 years with a history of regular menstrual cycles, received routine antenatal care starting at the 10th week of pregnancy. At 27 weeks, fetal growth retardation was noted clinically, and confirmed at 30 weeks. There was no evident cause apart from symptomless bacteriuria. A caesarean section was performed and a liveborn boy weighing 800g was delivered. The placenta weighed 300g and was described as infarcted. Respiratory distress syndrome developed which was responding to treatment. The baby deteriorated suddenly on the third day, becoming pale and lethargic. A cranial ultrasound revealed extensive Grade IV intraventricular haemorrhage. The child died that same day.

Placental insufficiency is the main condition that affected the fetus and infant and is entered on line (c). Bacteriuria and the caesarian section are both entered on line (d), as other maternal conditions that affected the fetus and infant.

CAUSES OF DEATH	
(a) Main disease or condition in fetus or infant	**INTRAVENTRICULAR HAEMORRHAGE**
(b) Other disease or condition in fetus or infant	**RESPIRATORY DISTRESS SYNDROME** **RETARDED FETAL GROWTH**
(c) Main maternal disease or condition affecting fetus or infant	**PLACENTAL INSUFFICIENCY**
(d) Main maternal disease or condition affecting fetus or infant	**BACTERIURIA IN PREGNANCY** **CAESAREAN SECTION**
(e) Other relevant circumstances	

APPENDIX 1 LIST OF TERMS

Term	*Additional information required*
Abscess	Site
	Cause and Organism
Abuse (substance)	Type (e.g. alcohol, heroin, tobacco)
	Use: (e.g. addict, occasional user)
Acquired Immunodeficiency Syndrome (AIDS)	Please include any complications or manifestations of the disease (e.g. Kaposi's Sarcoma).
Adhesions	If following an operation, the underlying condition for which surgery was performed and length of time since surgery. (See, Operations, page 22)
Agranulocytosis	Cause: If due to drug therapy, specify condition for which drug given.
Airways disease (chronic)	Nature of disease (eg. obstructive)
Anaemia	Primary (specify type)
	Secondary (specify underlying cause)
Aneurysm	Site (eg. cerebral, aortic)
	Cause (eg. arteriosclerotic)
	Ruptured or dissecting
Antepartum haemorrhage	Cause (eg.coagulation defects, placenta praevia)
	Anoxia (fetal) If occurred before or during labour
Appendicitis	Whether acute or chronic
	With peritonitis or abscess
Arteriosclerosis, Atheroma or Atherosclerosis	If associated with hypertension, specify type (eg. benign, malignant)
	Arteries involved (eg. coronary, cerebral)
	If resulting in dementia, please include.
Arteritis	Arteries involved (eg. coronary, cerebral)
	Cause (eg. arteriosclerotic, syphilitic)
Arthritis	Type (rheumatoid, juvenile, osteo)
	Cause (eg. traumatic)
	Site (e.g. hip, knee)
Asbestosis	Source of exposure
	Period since exposure
	Manifestations (e.g. Mesothelioma)
Asphyxia (fetal)	If occurred before or during labour
Aspiration of vomitus	Cause (eg. previous CVA, acute alcoholic toxicity, drug overdose, chronic alcohol abuse, or circumstances of drug use ie. addict, occasional user)
Asthma	Allergic or late onset
	with Emphysema or Chronic Obstructive Airways Disease
Atelectasis	Underlying disease causing this condition (e.g. acquired or as a result of a congenital disorder)
Birth Injury	Site
	Type of injury
	Cause (e.g. obstructed labour)

Bronchitis	Type: acute or chronic
	With: asthma, emphysema or Chronic Obstructive Airways Disease
Bronchopneumonia	Primary, hypostatic or aspiration
	Causative agent and underlying cause if any contributing disease or condition
	(See Pneumonia and Bronchopneumonia, page 21)
Burns Site	Percentage and degree of burns
	Cause of burns (e.g. hot water, house fire)
Cachexia	See Malnutrition
Calculus	Site and if with obstruction, infection or inflammation (e.g Cholecystitis with Cholelithaisis)
Cancer, carcinoma	(See Neoplasms, pages 14 - 17)
Cardiac/cardiorespiratory arrest	Underlying disease causing this condition (e.g. Coronary Artery Disease, Chronic Obstructive Airways Disease)
Cardiac failure, dilation, hypertrophy	Underlying disease causing this condition (e.g. Coronary Artery Disease)
	Site (e.g. left, right, congestive)
Cardiovascular disease	Specific disease condition (eg. hypertensive, atherosclerotic)
Carditis	Site: myocardium, endocardium, pericardium
	Type:rheumatic, meningococcal or viral
Cerebral degeneration	Underlying cause (e.g. atherosclerotic, infarction)
Cerebral effusion	Underlying disease causing this conditon (e.g. haemorrhage)
Cerebral sclerosis	Atherosclerosis or disseminated sclerosis
Cerebrovascular disease	Nature of disease (eg. atherosclerosis causing infarction, haemorrhage, occlusion - thrombotic/embolic)
	Site
CVA	Cause: infarction, haemorrhage, thrombotic/embolic
	Site
Chorea	Type: rheumatic (with or without heart involvement), Huntington's, gravidarum
Cirrhosis of liver	Cause (eg. alcoholic)
Cor pulmonale	Underlying cause, and whether acute or chronic
Coryza	Complication leading to death
Curvature of spine	Type: acquired (eg. tuberculous) or congenital
	With: heart disease and/or hypertension
Cytomegalic inclusion disease	If due to AIDS or other HIV illness
Debility	This condition is considered a trivial and non-specific condition. Please provide details of any other disease(s) for which the patient was being treated (e.g. Coronary Artery Disease, Chronic Obstructive Airways Disease, history of cancer of ascending colon)
Deep venous thrombosis	If following an operation, condition for which operation performed
	If due to inactivity, the condition causing the inactivity
Dementia Cause	(eg. senile, alcoholic, atherosclerotic, Alzheimer's or multi-infarct)
Dermatitis	Type
	Cause (eg. drug induced and state condition necessitating drug therapy)

Diabetes mellitus	Type: insulin dependant or non-insulin dependant diabetes
	With: complication(s) (eg. nephropathy, peripheral vascular disease)
Diarrhoea	Underlying cause (if unknown state whether it is believed to be infectious or not)
Dysentery	Type: amoebic (and, if so, whether acute or chronic), bacterial or other protozoal
Embolism	Site
	If following an operation: condition for which surgery performed
	If due to inactivity: underlying condition causing the inactivity
Encephalitis	Type: acute viral, late effect of viral, postvaccinal, idiopathic, meningococcal, suppurative, tuberculous
Endocarditis	Acute or chronic
	Site: mitral valve, aortic valve, pulmonary, tricuspid valve
	Cause: rheumatic, bacterial (including type of organism)
Failure, Renal	Acute or chronic
	Cause: analgesic, diabetes, (see Renal Failure, page 23-24)
	With: hypertension, heart disease
Falls	Please provide more detail about from where (e.g. from bed, down stairs, in bathtub)
	Place fall occurred (e.g. home, nursing home, shopping centre)
Fatty degeneration	Site eg. of heart or liver
Fractures	Site (e.g. fractured neck of femur)
	Pathological (e.g. osteoporotic, neoplastic) or traumatic (if due to trauma, state circumstances of trauma, e.g. fall from bed in nursing home)
Frailty	This condition is considered a trivial and non-specific condition. Please provide details of any other disease(s) for which the patient was being treated (e.g. Coronary Artery Disease, Chronic Obstructive Airways Disease, history of cancer of ascending colon)
Gangrene	Site
	Type: atherosclerotic, diabetic, due to gas bacillus etc.
Gastro-enteritis	Cause: infectious (type of organism) or non-infectious
Gastroesophageal/Gastric Ulcer	See Peptic Ulcer
Goitre	Type: simple, toxic, diffuse, uninodular, multinodular
Haematemesis	Cause: gastric ulcer, adverse effects of medications etc.
Haematoma	Site
	Cause: if due to trauma, state circumstances of trauma; if due to surgery state type of surgery and reason for surgery.
Haemorrhage	Site
	Cause: if due to trauma, state circumstances of trauma; if due to surgery state type of surgery and reason for surgery.
Hemiplegia	Cause and duration (eg. spinal cord injury from MVA - 20 years previously)
Hepatitis	Type: acute or chronic, alcoholic, of newborn, of pregnancy, childbirth or puerperium, viral (and if so, whether Type A, B, C, D, E)
Human Immunodeficiency Virus (HIV)	Please include any complications or manifestations of the disease (e.g. Kaposis Sarcoma).
Hydrocephalus	Congenital or acquired, and if so, the underlying cause

Hypertension	With: heart involvement, cerebrovascular involvement, renal involvement, pregnancy
	If secondary, specify underlying cause
Immaturity	Cause (e.g. condition in mother, congenital disorder)
	Complication leading to death
Infarction - cerebral	If due to occlusion, stenosis, embolism/thrombosis
Infarction - myocardial	Site
	Acute, healed or old
	Cause: (e.g. Coronary Artery Disease, following trauma, following surgery)
Influenza	With: pneumonia, other manifestation (specify)
Injury	Site and type of injury
	Circumstances surrounding the injury(s) and if due to accident, suicide, homicide
	(See, Place of Occurrence and Accidental Deaths, page 25)
Intestinal infection	Causative organism
Intestinal obstruction, occlusion	Cause (e.g. Colon cancer, post-operative)
	If paralytic following operation, state condition for which surgery performed
Kaposi's sarcoma	If due to AIDS or other HIV illness
Leukaemia	Acute, sub-acute or chronic
	Type: (eg. lymphatic, myeloid, monocytic)
Liver failure; hepatic failure	Cause (eg. acute infective, post-immunisation, post-transfusion, toxaemia of pregnancy or of puerperium)
Lung disease (chronic)	Nature of disease (eg. obstructive)
Lymphadenitis	Cause (eg. tuberculous, septic wound)
Lymphoma	Type (eg. Hodgkin's disease; Non-Hodgkin's lymphoma, mixed-cell type)
Malignant neoplasm	See Neoplasms
Malnutrition	Type: congenital, if due to deprivation or disease (specify), protein deficient, (specify type and degree of severity)
Melaena	Underlying cause eg. Primary carcinoma of transverse colon
Meningitis	Cause: congenital, meningococcal, tuberculous, haemophilus influenzae, other organism (specify)
Mental retardation	Underlying physical condition (e.g. Down's Syndrome)
Multi-organ failure	This condition is considered a non-specific condition. Please provide details of any other disease(s) for which the patient was being treated (e.g. Coronary Artery Disease, Chronic Obstructive Airways Disease, history of cancer of ascending colon)
Myocarditis	Acute or chronic
	Cause (eg. rheumatic fever, atherosclerosis)
Natural Causes	Please list the types of conditions that make up the natural causes
Neoplasm	Type: benign, malignant with site of primary growth
	(See Neoplasms, pages 14 - 17)
Nephritis/Glomerulonephritis	Type: acute, sub-acute, chronic, with oedema, infective or toxic (cause)

Nephritis/Glomerulonephritis *continued*	If associated with: hypertension, arteriosclerosis, heart disease, pregnancy, diabetes mellitus
Obstruction of intestine	Cause (e.g. Colon cancer, post-operative)
	If paralytic following operation, state condition for which surgery performed
Obstructive airways disease	Type: chronic, acute lower respiratory infection, acute exacerbation of asthma, bronchiectasis, emphysema etc.
Occlusion	Site: (e.g. carotid, anterior, posterior, pre-cerebral, coronary)
	With: infarction, due to embolism, thrombosis etc.
Oedema of lungs	Type: acute, hypostatic, secondary to heart disease, with hypertension
	If hypostatic or terminal, specify conditions necessitating inactivity
	If chronic and due to external agents (specify cause)
Old age	This condition is non-specific and unable to be coded. Please provide details of any other disease(s) for which the patient was being treated (e.g. Coronary Artery Disease, Chronic Obstructive Airways Disease, history of cancer of ascending colon).
Paget's disease	Of bone, breast, skin (specify site) or malignant
Paralysis, paresis	Cause (eg. due to birth injury, syphilis)
	Precise form (eg. infantile, agitans)
Paralytic ileus	Cause (e.g. Colon cancer, post-operative)
	If paralytic following operation, state condition for which surgery performed
Parametritis	Cause and infective organism if known
Pelvic abscess	Cause and infective organism if known
Peptic ulcer	Site: stomach, gastric duodenum, oesophagus
	With: haemorrhage, perforation
Pericarditis	Type: acute, chronic, bacterial rheumatic
Peripheral vascular disease	Cause (eg. atherosclerosis)
Peritonitis	Cause and infective organism if known
Phlebitis	Cause and infective organism if known
Pleural effusion	Cause: (e.g. tuberculosis, post-operative)
Pneumoconiosis	Whether: silicosis, anthracosilicosis, asbestosis, associated with tuberculosis, other (specify)
Pneumocystosis pneumonia	If due to AIDS or other HIV illness
Pneumonia	Type of organism
	If hypostatic or terminal, specify underlying illness
	(See Pneumonia and Bronchopneumonia, page 21)
Pneumothorax	Cause: (e.g. traumatic, fetal)
Prematurity	Cause: (e.g. congenital disorder)
	Complication leading to death (hypotension)
Pulmonary embolism	If following an operation, condition for which surgery performed
	If due to inactivity, the condition causing the inactivity
	(See Pulmonary Embolism, page 22)
Pulmonary oedema	Cause: (e.g. Congestive cardiac failure, Chronic Obstructive Airways Disease)

Renal disease or failure	Acute or chronic
	Underlying cause eg. diabetic nephropathy
	With: hypertension, heart disease, necrosis
	(See Renal Failure, pages 23 - 24)
Respiratory failure	Underlying cause (e.g. Coronary Artery Disease, Chronic Obstructuve Airways Disease)
Respiratory infection	Site (upper or lower respiratory tract) and causative organism if known
Rheumatic fever	Active or inactive
	With: nature of heart disease (e.g. hypertrophy, carditis, endocarditis, mitral valve)
Sclerosis	Arterial: coronary, cerebral (specify whether disseminated or atherosclerosis), disseminated, spinal (lateral, posterior), renal
Scoliosis	Acquired (eg. tuberculous, osteoporosis) or congenital
Senility	With: dementia, Alzheimer's disease etc.
Septicaemia	Underlying illness (e.g. surgery, renal failure due to Type ii Diabetes)
	Type of organism
	(See Sepsis and Septicaemia, pages 19 - 20)
Septic infection	If localised, specify site and organism
Silicosis	If associated with tuberculosis
Smoker	Please indicate if there is a history of smoking
Softening of brain	Cause: embolic, arterioslcerotic etc.
Spondylitis	Whether: ankylosing, deformans, gonococcal, sacro-iliac, tuberculous
Stenosis, stricture	Site (e.g. spinal, arterial)
	If congenital or acquired (specify cause)
Subarachnoid haemorrhage	Cause: if due to trauma, state circumstances of trauma; if due to surgery state type of surgery and reason for surgery.
Substance abuse	Type (e.g. alcohol, heroin, tobacco)
	Use: (e.g. addict, occasional user)
Sudden Infant Death Syndrome	Please indicate if as a result of co-sleeping
Syphilis	Site affected
	Type: congenital, early or late, primary, tertiary, secondary
Tetanus	If following minor injury (specify)
	If following major injury (specify)
	Puerperal, obstetric
Thrombosis	Arterial (specify artery)
	Intracranial sinus: pyogenic, non-pyogenic, late effect, post-abortive, puerperal, venous (specify site),
	If post-operative or due to confinement in bed, specify condition which necessitated operation or immobilisation
Toxaemia	Underlying disease causing the condition (e.g. pregnancy, specified organism)
	If Pregnancy please specify: albuminuria, eclampsia, hyperemesis, hepatitis, hypertension, pre-eclampsia

Toxoplasmosis	If due to AIDS or other HIV illness
Tuberculosis	Primary site
	Associated pneumoconiosis if present
Tumours	See Neoplasms
Ulcer	Site
	Perforated or with haemorrhage
Ulcer, leg	Nature (eg. peripheral, varicose)
	Cause (eg. atherosclerosis, diabetes)
Uraemia	Cause
	Associated childbirth or pregnancy
Urinary tract infection	Primary: specify organism and precise location, eg. ureter or kidney
	Secondary: specify underlying disease, eg. diabetes
URTI	Complication leading to death
	Organism if identified
	With: Chronic Obstructuve Airways Disease
Valvular disease	Valve(s) affected (e.g. mitral, aortic)
	Acute or chronic
	If rheumatic: active or inactive
	If non-rheumatic: specify cause
Vascular disease	Nature (eg. hypertensive, peripheral)
	Cause (e.g. atherosclerotic)
Wound(s)	Site
	Cause (non-traumatic or traumatic)
	Circumstances surrounding wounds (place of occurrence, activity etc.)

QUICK REFERENCE - COMPLETING THE MEDICAL CERTIFICATE OF CAUSE OF DEATH (COD)

Part One of the Certificate:

Direct Cause of death	Line **Ia** The direct cause of death
Antecedent causes	Line **Ib** The cause of Line Ia
	Line **Ic** The cause of Line Ib
	Line **Id** The cause of Line Ic

Part Two of the Certificate:

Other significant conditions contributing to death but not related to the disease or condition causing it.

Example of Completed Medical Certificate of COD

Part	**Ia**	**Klebsiella pneumoniae**	**1 week**
	Ib	**Inactivity**	**2 months**
	Ic	**Cerebral Infarction**	**2 months**
	Id	**Ateriosclerosis**	**years**
Part	**II**	**Ischaemic Heart Disease**	**10 years**
		Alcoholism and Smoking	**20 years**

Where two independent diseases have contributed equally to the fatal sequence they may be entered on the same line.

Duration between onset and death: Enter the duration of time, between onset of each condition and the date of death.
Note: The shortest duration should be on Line Ia and increase sequentially to the last entry in part one. See example above.

If you have any questions regarding Cause of Death Certification Freecall the ABS on 1800 620 963

QUICK REFERENCE CERTIFICATION GUIDE - GENERAL CONDITIONS AND DISEASES

Please provide the required detail for the conditions and diseases listed below.
Where your best medical opinion does not permit you to document the required detail, please document this detail as UNKNOWN.

Note: This principle applies to ALL conditions and diseases that are documented on the Medical Certificate of Cause of Death, not only those listed below and overleaf. For information on the required detail for other conditions, not listed below, refer to the booklet "Cause of Death Certification, Australia, 2008 (1205.0.55.001)" pages 14 - 27.

Pneumonia Primary, hypostatic or aspiration.
Cause of any underlying condition
Causative organism.
If due to inactivity/debility - condition leading to inactivity/debility

Infection Primary or secondary
Causative organism
If primary - bacterial or viral
If secondary - details of primary infection

UTI Site within urinary tract
Causative organism
Underlying cause
If due to inactivity/debility - condition leading to inactivity.

Renal Failure Acute, chronic or end stage,
Underlying cause. eg hypertension, arteriosclerosis, pregnancy or heart disease.
If due to immobility - condition leading to inactivity/debility.

Hepatitis Acute or chronic
Due to alcohol
Of new born
Of pregnancy, childbirth, puerperium
If viral - type (A,B,C,D OR E)

Pregnancy **Document pregnancy on certificate even if unrelated to COD**
- If pregnant at time of death or within 42 weeks
- If pregnant between 6 weeks and 12 months of death

Infarction Ateriosclerotic or thrombolytic
If thrombolytic - see Thrombosis below.

Thrombosis **If arterial** -specify artery
If intra cranial sinus - pyogenic non-pyogenic, late effect, post-abortive, puerperal, venous (specify vein).
If post-op or due to immobility - condition necessitating surgery or immobility.
If venous - specify vein

Pulmonary Embolism **If under 75 years of age** - underlying cause
If postoperative -condition requiring surgery

Cardiac Arrest Underlying cause

Septicaemia Site of original infection
Underlying cause and organism

Leukaemia Acute, sub acute or chronic
Type - lymphatic, myeloid or monocytic

Alcohol/Drugs Harmful use or addiction

Complication Of Surgery Condition requiring surgery

Dementia Cause (senile, Alzheimer's, multi infarct etc)

Accidental Death Circumstances surrounding the death.
Accidental, suicidal, homicidal or undetermined intent
Place of occurrence at time of death

If ANY of the detail requested above is UNKNOWN, please document this on the certificate.

Medical Certification of Cause of Death should , at all times, be your BEST MEDICAL OPINION. If your best medical opinion does not permit you to document the required detailed outlined on this guide, please identify this by documenting the required detail as UNKNOWN.

QUICK REFERENCE CERTIFICATION GUIDE - MALIGNANT NEOPLASMS

Clearly identify the malignancy, exact site and behaviour of all neoplasms.

Tumor/Growth - Identify site and as benign, malignant primary, malignant secondary or unknown behaviour
Neoplasm - identify the malignancy, exact site and behaviour
Metastatic - Identify whether metastatic **TO** (Secondary) or metastatic **FROM** (Primary)
Secondary - Identify whether primary site or document Primary as Unknown

HOW SPECIFIC SHOULD YOUR RECORDING OF A NEOPLASM SITE BE?

If the site of any primary neoplasm is unknown, "Primary unknown" **MUST** be documented on the Medical Certificate of Cause of Death.

The principles of site specificity, and primary unknown, apply to all malignant neoplasms, not just those listed below. The primary neoplasm sites listed below require one of the subset qualifying terms, to provide necessary detail for identification of the underlying cause of death.

Site of Primary Neoplasm - Please be as specific as you are able. (e.g. Primary carcinoma of inner aspect of lower lip)

Lip
lower
upper
commissure
skin of lip
overlapping
unknown

Mouth
cheek (mucosa)
vestibule
retro molar
overlapping
unknown

Pharynx
nasopharynx
hypopharynx
oropharynx
tonsil
pyriform sinus
overlapping
unknown

Oral
tongue
salivary gland
palate
gum
overlapping
unknown

Skin
vulva
vagina
penis
scrotum
melanoma (by site)
other specified site (by site)
unknown

Liver
sarcoma
angiosarcoma
hepatoblastoma
hepatocellular
intrahepatic duct
unknown

Bowel
large (colon)
small
colon with rectum
sigmoid colon
unknown

Uterus
cervix uteri
corpus uteri
ligament
overlapping
unknown

Endocrine Gland
parathyroid
pituitary
craniopharyngeal
pineal
aortic body
pluriglandular
unknown

Adrenal Gland
medulla
cortex
unknown

Respiratory
nasal cavity
middle ear
accessory sinus
mediastinum
trachea
thymus
bronchus
larynx
overlapping
unknown

Lung
upper lobe
lower lobe
middle lobe
main bronchus
overlapping
unknown
primary
secondary

Breast
upper inner quadrant
lower inner quadrant
upper outer quadrant
lower outer quadrant
axillary tail
central portion
nipple and areola
overlapping
unknown

Urinary Organs
kidney
ureter
bladder
urethra
paraurethral gland
overlapping
unknown

CNS
meninges
brain
"specific" ventricleuterine
brain stem
cranial nerve
spinal cord
cauda equina
overlapping
unknown
primary
secondary

FOR MORE INFORMATION . . .

INTERNET **www.abs.gov.au** the ABS website is the best place for data from our publications and information about the ABS.

INFORMATION AND REFERRAL SERVICE

Our consultants can help you access the full range of information published by the ABS that is available free of charge from our website. Information tailored to your needs can also be requested as a 'user pays' service. Specialists are on hand to help you with analytical or methodological advice.

PHONE 1300 135 070

EMAIL client.services@abs.gov.au

FAX 1300 135 211

POST Client Services, ABS, GPO Box 796, Sydney NSW 2001

FREE ACCESS TO STATISTICS

All statistics on the ABS website can be downloaded free of charge.

WEB ADDRESS www.abs.gov.au