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HEALTH INITIATIVE

IMPROVING CAUSE OF DEATH INFORMATION

Handbook for doctors on
cause of death certification

Resources and Tools 1
October 2016



About this series

Capacity-building tools and guidelines are designed to influence and align civil registration and vital statistics practice in countries with established international standards.

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Working papers are the principle knowledge products of the Civil Registration and Vital Statistics Initiative at The University of Melbourne. Easily accessible, they collectively form a lasting repository of knowledge generated under the Data for Health Initiative based on in-country experience. Working papers are intended to stimulate debate and promote the adoption of best practice in CRVS in partner countries and world-wide.

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The series serves to describe the state of CRVS systems in partner countries and provides a baseline for comparison between countries and over time. It also provides a preliminary diagnostic analysis for use by countries in highlighting areas needing improvement.

Acknowledgements

This is the second version of this capacity-building tool. The first version was developed by the Health Information Systems Knowledge Hub at the University of Queensland (2012).

This tool was reviewed by Dr Rasika Rampatige, Professor Ian Riley, Dr Saman Gamage, Dr Wansa Paoon, Dr Nandalal Wijesekera, and Nicola Richards.

Published by the Civil Registration and Vital Statistics Initiative, Data for Health

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Preface

Health decision-makers and planners all around the world make extensive use of mortality statistics. The quality of these statistics depends on the accuracy with which individual doctors fill out death certificates. Unfortunately, the accuracy of death certification is poor in many countries. This reduces the quality of national and international mortality statistics, and limits their value for health planning and policy.

Guidelines on death certification by doctors are available but are rarely used in many countries. Busy medical doctors may not be able to reference such tools when they need a quick reminder about correct certification procedures. This handbook is designed to be a readily accessible resource that doctors can consult rapidly and easily.

These are generic guidelines about how to certify the cause of death, written for doctors and medical students, particularly in developing countries. They can be read and used as a separate tool, or provide the basis for training in interactive workshops. They form part of a package of resources that includes a workbook of case studies and references for self-directed learning, and a trainers' manual for running workshops.

These materials will be available on the University of Melbourne's Civil Registration and Vital Statistics Initiative's website (mbspgh.unimelb.edu.au/dataforhealth). These resources can be adapted so that they are relevant for your country.

The causes of death recorded in the International Form of Medical Certificate of Cause of Death are

all those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstance of the accident or violence which produced any such injuries.

Twentieth World Health Assembly, 1967

The underlying cause of death is

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.

World Health Organization, 1994

Introduction

This handbook aims to guide doctors in filling out death certificates. Death certification forms an important part of a doctor's duties because the information recorded in death certificates helps decision-makers determine health priorities for prevention of deaths due to similar causes in the future.

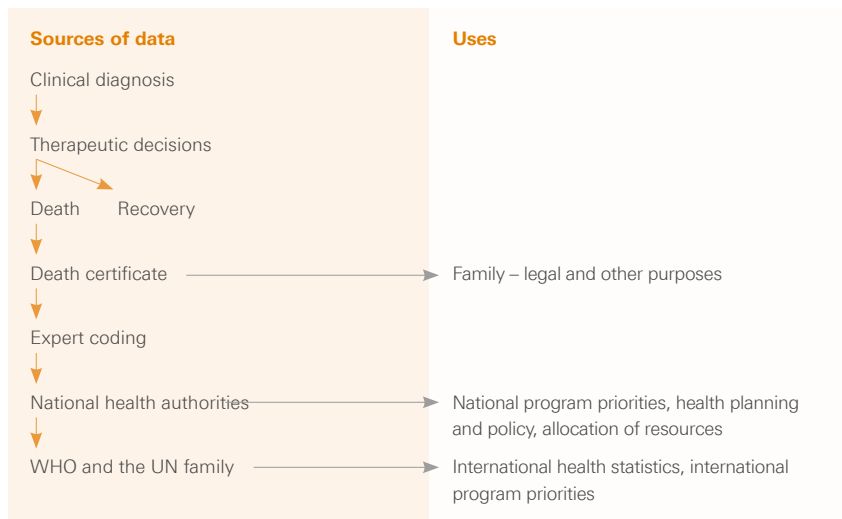
Clinical diagnosis is the basis for therapeutic decision-making. Most patients recover, but some die. When the diagnosis is entered onto a death certificate, it establishes the cause of death for that person. This information is then used in new and quite different ways from its original use, primarily to inform policy-makers about the leading causes of death in their country or district, and how these are changing.

The certificate is provided to the family who may need it directly to obtain permission for funeral arrangements and for other legal purposes, including wills and testaments. The information on the certificate is also important for family members so that they know what caused the death, and are aware of conditions that may occur or could be prevented in other family members.

The cause of death is then coded by an expert who is trained in applying the International Statistical Classification of Diseases and Related Health Problems, currently in its 10th revision (ICD-10). The ICD-10 is managed by the World Health Organization and classifies thousands of diseases as individual items and groups similar diseases together in a meaningful way. The coded certificates are then tabulated. This tabulation forms the basis for national mortality statistics. These are critical for establishing national health program priorities, for health planning and policy, and to inform debate about the allocation of health resources. Good-quality mortality statistics are fundamental for the prevention of premature deaths. By agreement, countries are obliged to report their mortality statistics to the World Health Organization. These statistics form the basis for international health statistics and for international program priorities. They also form the basis for national and global burden of disease estimates and for decisions about global priorities to improve health.

These uses are outlined in Figure 1. In short, the type and the quality of health services provided depend heavily on the accuracy of information obtained from death certificates. These guidelines aim to assist you in accurately completing the International Form of Medical Certificate of Cause of Death. This forms the basis of all national and international statistics about leading causes of death, and how they are changing.

Figure 1: Use of cause of death data



UN = United Nations; WHO = World Health Organisation

Legal implications and confidentiality

A death certificate is a legal document with implications and uses that vary from country to country. Therefore, it is important that the death certificate is completed accurately. It may be needed to proceed with burial or cremation of the body. The family may need it to execute the deceased person's will. In countries with a coronial system in place, a doctor may be required to report unnatural deaths to the coronial system for inquest or for a postmortem to be held to determine the cause and circumstance of the death. The process of notification will differ between countries and doctors need be aware of the correct process of reporting.

The doctor or the hospital will be required to report details of the death to national authorities such as the health department, the civil registrar or the national statistics office. In most countries details of the death and the circumstances of the deceased person are stored on a database; in some countries these data are de-identified.

Within the above limits, the doctor has a duty to maintain confidentiality about the cause of death. This duty is to the family of the deceased person. Information in the death certificate can be used for research purposes, as long as the deceased is not identifiable by name or other means.

The doctor should not reveal the details of a death certificate to a third party unless:

- they are legally required to do so
- they have obtained prior consent from the next of kin of the deceased.



Identification data in the death certificate

This information is of critical importance to correctly identifying the deceased for both legal and statistical purposes. The details vary from country to country but are likely to include:

- date and place of death
- full name and place of residence
- sex and race/ethnicity
- age
- profession or occupation.

An example of a complete death certificate, including demographic and other medical data, is provided in Annex 1.

General instructions for completing death certificates

General instructions for doctors when filling in death certificates are given in Box 1. It is important that doctors pay attention to these guidelines because they will help coders correctly identify and code the death.

In most countries, coders are not medically trained, so even a small misinterpretation may result in confusion and the incorrect underlying cause of death being selected.

BOX 1: GENERAL GUIDELINES FOR DOCTORS COMPLETING DEATH CERTIFICATES

Complete each item in order following any specific instructions given in your country.

The entry must be legible. Use black ink.

Do not make alterations or erasures. If you want to delete an entry, draw a single line across it. Do not use correction fluid.

Verify the accuracy of identification data, including the correct spelling of the name of the deceased, with the family of the deceased.

Do not use abbreviations.

Enter only one disease condition or event per line.

Understanding the International Form of Medical Certificate of Cause of Death

The International Form of Medical Certificate of Cause of Death (known as the death certificate) is recommended by the World Health Organization for certification of death in all countries. One way of looking at the death certificate is that it provides a framework for the organisation of clinical diagnoses used for public health purposes. Figure 2 shows the death certificate recommended by the World Health Organization.

The death certificate is divided into three sections:

1. Part 1—report sequence/chain of events leading to death
2. Part 2—other significant conditions contributing to death
3. A column to record the approximate interval between onset and death.

Before reviewing the sections in detail, it is essential to understand the following concepts:

- the sequence/chain of events leading to death
- the contributory cause(s) of death.

Figure 2: International Form of Medical Certificate of Cause of Death, Frame A: Medical data (WHO 2016)

| Frame A: Medical data: Part 1 and 2 | | | |
|---|---|-----------------------|--|
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | Cause of death | Time interval from onset to death |
| | a | | |
| | b | Due to: | |
| | c | Due to: | |
| | d | Due to: | |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | | | |

SEQUENCE/CHAIN OF EVENTS LEADING TO DEATH

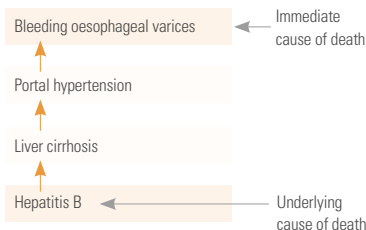
Mortality statistics are based on the underlying cause of death, which is the disease or injury that initiated the sequence/chain of events that led directly to death. For example, imagine a person dies of a cerebral haemorrhage following a motor vehicle accident. Cerebral haemorrhage is the direct (or immediate) cause of death—the motor vehicle accident is the underlying cause of death. The surgeon is concerned with the treatment of cerebral haemorrhage; the public health concern is to prevent deaths due to motor vehicle accidents (the underlying cause of death in this case).

Case study 1

A 50-year-old woman was admitted to the hospital vomiting blood and was diagnosed as having bleeding oesophageal varices. Investigation revealed portal hypertension. The woman had a history of hepatitis B infection. Three days later, she died. Figure 3 outlines the sequence/chain of events that led to her death.

It is extremely important that the underlying cause of each death is correctly determined and accurately recorded. In this case, bleeding oesophageal varices was the immediate cause of death. Hepatitis B was the underlying cause of death. Knowing this, the public health response is to implement immunisation programs against hepatitis B virus to prevent such deaths in future.

Figure 3: Sequence/chain of events leading to the death in Case study 1

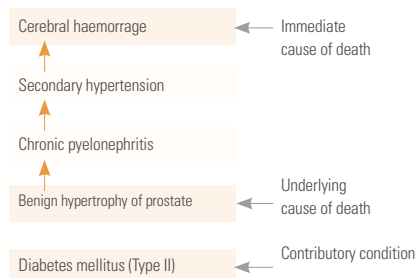


Case study 2

A man dies of cerebral haemorrhage due to secondary hypertension due to chronic pyelonephritis. The chronic pyelonephritis was due to outflow obstruction, which was due to benign prostatic hyperplasia. He also had a history of diabetes mellitus, which had been diagnosed five years before his death. Diabetes mellitus (Type II), which is not in the sequence/chain of events leading to death, would have contributed to the death, and therefore should be entered in Part 2 of the death certificate.

Figure 4 outlines the sequence/chain of events and contributory condition that led to his death.

Figure 4: Sequence/chain of events and contributory condition for Case study 2



PART 1 OF THE DEATH CERTIFICATE

Part 1 of the death certificate has four lines for reporting the sequence/chain of events leading to death; these are labelled 1(a), 1(b), 1(c) and 1(d).

The direct cause of death is entered at Part 1(a). If the death was a consequence of another disease or condition, this underlying cause should be entered at 1(b). If there are more events leading to death, write these in order at 1(c) and 1(d).

Important points

- Always use consecutive lines starting at 1(a), never leave blank lines within the sequence
- If there is only one cause of death, it is entered at 1(a)
- Each condition below 1(a) is a cause of the condition above it, ie it is an antecedent cause
- The initiating cause in the sequence is the Underlying Cause
- The following examples are provided to highlight how a death certificate should be completed depending on the number of events there are in the sequence/chain leading to death.



Case study 3

A 56-year-old man dies from acute myocardial infarction within three hours of its onset. He did not have any other illnesses.

His ECG and cardiac enzyme levels confirmed the diagnosis.

While it is rare to only have one event leading to death, it does occur. In these cases, cause of death would be reported at 1(a) and it would also form the underlying cause of the death, shown in Figure 5. If more information is available in the sequence of events leading to death, these must be reported using the lines provided at 1(b), 1(c) or 1(d).

Figure 5: A death certificate with only one cause of death reported

| Frame A: Medical data: Part 1 and 2 | | | |
|---|---|------------------------------------|-----------------------------------|
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | Cause of death | Time interval from onset to death |
| | a | <i>Acute myocardial infarction</i> | <i>3 hours</i> |
| | b | Due to: | |
| | c | Due to: | |
| | d | Due to: | |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | | | |

Case study 4

A 56-year old person dies from abscess of the lung after five days, which resulted from lobar pneumonia of the left lung (two weeks).

When there are two causes of death reported, these are written in at 1(a) and 1(b), as shown in Figure 6. In this case, underlying cause of death is recorded in line 1(b).

Figure 6: A death certificate where two events leading to death are reported

| Frame A: Medical data: Part 1 and 2 | | | | |
|---|---|---|---|-----------------------------------|
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | | Cause of death | Time interval from onset to death |
| | ↻ | a | <i>Abscess of lung</i> | <i>5 days</i> |
| | ↻ | b | Due to: <i>Lobar pneumonia left lung</i> | <i>2 weeks</i> |
| | ↻ | c | Due to: | |
| | | d | Due to: | |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | | | | |

Case study 5

A 23-year-old man dies from traumatic shock one hour after after sustaining multiple fractures when he was hit by a truck. The accident happened five hours ago. Figure 7 shows a death certificate that has used three lines. These events are recorded at 1(a), 1(b) and 1(c). In this case, underlying cause of death is recorded in the line 1(c).

Figure 7: A death certificate where three events leading to death are reported

| Frame A: Medical data: Part 1 and 2 | | | |
|---|---|---|-----------------------------------|
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | Cause of death | Time interval from onset to death |
| | a | <i>Traumatic shock</i> | <i>1 hour</i> |
| | b | Due to: <i>Multiple fractures</i> | <i>5 hours</i> |
| | c | Due to: <i>Pedestrian hit by truck</i> | <i>5 hours</i> |
| | d | Due to: | |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | | ----- | |

Case study 6

A 70-year-old man dies from cerebral haemorrhage three days after its onset. This resulted from secondary hypertension, which he had for the last year. The hypertension was secondary to chronic pyelonephritis, which he had for the last two years. He had also had a prostatic adenoma for the last five years. He also had benign hypertrophy of the prostate.

Figure 8 shows a death certificate that has used four lines. These events are recorded at 1(a), 1(b), 1(c) and 1(d). The underlying cause of death is reported in line 1(d).

In rare situations, there could be more than four sequences leading to death. In this case, you can add a line 1(e) and record the underlying cause of death in that line. Do not record underlying cause of death in Part 2 of the death certificate.

Figure 8: A death certificate where four events leading to death are reported

| Frame A: Medical data: Part 1 and 2 | | | |
|---|---|--|-----------------------------------|
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | Cause of death | Time interval from onset to death |
| | a | <i>Cerebral haemorrhage</i> | <i>3 days</i> |
| | b | Due to: <i>Hypertension</i> | <i>1 year</i> |
| | c | Due to: <i>Chronic pyelonephritis</i> | <i>2 years</i> |
| | d | Due to: <i>Benign hypertrophy of prostate</i> | <i>5 years</i> |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | | | |

PART 2 OF THE DEATH CERTIFICATE

Part 2 of the death certificate records all other significant or contributory diseases or conditions that were present at the time of death, but did not directly lead to the underlying cause of death listed in Part 1.

Case study 7

A 60-year-old hypertensive patient was admitted to the surgical casualty ward with severe abdominal pain and vomiting, which had lasted for one week. She was diagnosed as having strangulated femoral hernia with a bowel perforation. She underwent surgery to release the hernia and resect the intestine, with an end-to-end anastomosis. Two days after the surgery she developed signs of peritonitis and she died two days later.

In this example, the underlying cause of death is strangulated femoral hernia. Hypertension, which is not in the sequence of events leading to death but would have contributed to the death, should be entered in Part 2 of the death certificate, as shown in Figure 9.

Figure 9: A death certificate where a contributory condition is reported

| Frame A: Medical data: Part 1 and 2 | | | |
|---|---|---|-----------------------------------|
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | Cause of death | Time interval from onset to death |
| | a | <i>Peritonitis</i> | <i>2 days</i> |
| | b | Due to: <i>Bowel perforation</i> | <i>1 week</i> |
| | c | Due to: <i>Strangulated femoral hernia</i> | <i>1 week</i> |
| | d | Due to: | |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | | <i>Hypertension</i> | |

APPROXIMATE INTERVAL BETWEEN ONSET & DEATH

The column on the right-hand side of the death certificate is for recording the approximate time interval between the onset of the condition and the date of death. The time interval should be entered for all conditions reported on the death certificate, especially for the conditions reported in Part 1. These intervals are usually established by the doctor on the basis of available information. In some cases, the interval will have to be estimated. Time periods, such as minutes, hours, days, weeks, months or years can be used.

If the time of onset is unknown or cannot be determined, write 'unknown'. This is very important. Do not leave this column blank.

This information is useful for coding certain diseases and provides a check on the accuracy of the reported sequence of conditions. Therefore, it is important to fill in these lines.



Case study 8

A 58-year-old man presented at a clinic with a long history of haemoptysis and weight loss. The diagnosis was advanced pulmonary tuberculosis, reactivation type with cavitations, perhaps of eight years duration. The patient also suffered from generalised arteriosclerosis, probably of long duration. Directly after the admission, the patient had an acute and massive pulmonary haemorrhage and died about 10 hours later. The patient's death certificate is shown in Figure 10.

Figure 10: A death certificate where the time intervals are recorded for Case study 8

| Frame A: Medical data: Part 1 and 2 | | | |
|---|---|---|-----------------------------------|
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | Cause of death | Time interval from onset to death |
| | a | <i>Pulmonary haemorrhage</i> | <i>10 hours</i> |
| | b | Due to: <i>Advanced pulmonary tuberculosis</i> | <i>8 years</i> |
| | c | Due to: | |
| | d | Due to: | |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | <i>Generalised arteriosclerosis (unknown)</i> | | |

Guidelines for recording specific conditions

Doctors need to give as full a description of disease conditions as possible to help the classification and coding process for each death certificate.

NEOPLASMS (TUMOURS)

When reporting deaths due to neoplasm try to provide detailed information about the tumour. This should include:

- site of the neoplasm
- whether benign or malignant
- whether primary or secondary (if known), even if the primary neoplasm had been removed long before death
- histological type (if known).

If the primary site of a secondary neoplasm is known, it must be stated; for example, primary carcinoma of the lung. If the primary site of a secondary neoplasm is unknown, 'primary unknown' must be stated on the death certificate.

SURGICAL PROCEDURES

If death is a consequence of a surgical procedure the names of the procedure should include the condition for which it was performed; for example, appendectomy for acute appendicitis.

PREGNANCY & REPORTING MATERNAL DEATHS

If a woman dies during pregnancy or within 42 days of the termination of a pregnancy, the fact that the woman was pregnant should be indicated on the certificate, even if the direct cause of death is not related to the pregnancy or to childbirth. For example, the entry could read 'pregnant, period of gestation 26 weeks'.

If the death certificate includes a pregnancy check box, it should be ticked to indicate the woman was pregnant or was within 42 days of delivery when the death occurred, if that was the case.

HYPERTENSION

It is important to state whether hypertension was essential or secondary to some other disease condition (ie chronic pyelonephritis).



INFECTIOUS & PARASITIC DISEASES

If the causative agent is known, it should be noted on the certificate.

If the causative agent is unknown, write 'cause unknown'. It is also important to include the site of the infection, if known (ie urinary tract, respiratory tract).

DIABETES MELLITUS

The guidelines related to documenting cause of death when patient has diabetes is complex. Diabetes mellitus can be the underlying cause of death, or a risk factor for another underlying cause of death. As a general rule, if the patient dies from a complication of diabetes mellitus (ie Diabetes nephropathy) document diabetes mellitus (Type I or II) as the underlying cause of death. If a patient dies from stroke or acute myocardial infarction, document diabetes in Part 2 as a risk factor (other significant condition).

INJURIES, POISONINGS & EXTERNAL CAUSES OF DEATH

The circumstances of death from, for example, a motor vehicle accident, suicide or homicide, is known as the external cause of death. When death occurs as a consequence of injury or violence, the external cause (the circumstance of the injury) should always be listed as the underlying cause.

The external cause should be described in as much detail as possible; for example, 'motor traffic accident' is not sufficiently accurate; however, 'pedestrian hit by motor car' is both clear and accurate. In a case of suicide, simply entering 'suicide' is insufficient; the method of suicide should be entered. For example, 'suicidal death by hanging' is a clear description.

In countries where a coronial system is in place doctors may need to inform the coroner about deaths from causes in this category before writing a death certificate. These are often referred to as unnatural deaths.

ILL-DEFINED CONDITIONS

Entering ill-defined conditions on death certificates is of no value for public health. These conditions do not provide any information for decision-makers to guide them in designing preventive health programs.

Organ failure (ie heart or liver failure) is not acceptable as an underlying cause of death. The disease or condition causing the organ failure should be entered as underlying if at all possible.

Similarly, the term '**septicaemia**' should not be used as an underlying cause if the source of the infection (ie septic abortion or community acquired pneumonia) can be identified. These are known as ill-defined conditions and should be avoided.

Symptoms and signs (ie chest pain, cough and fever) are also considered to be ill-defined conditions.

Doctors should not report the **mode of dying** on the death certificate. This includes terms such as 'cardiopulmonary arrest' or 'brain death'.

In reporting the death of an elderly person, the terms 'senility' or 'old age' should be avoided. If at all possible the doctor should enter a specific cause.

Where there is insufficient information to be certain of the cause of death, it is legitimate for the doctor to state 'unknown cause of death'. However, this diagnosis should only be used in exceptional circumstances.



ANNEX 1: INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH (WHO 2016)

| | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---|--|---|--|--|---------------------------------|----------------------------------|-----------------------------------|---|---------------|---|---|---|---|---|---|---|---|---|---|
| Administrative Data (can be further specified by country) | | | | | | | | | | | | | | | | | | | | | | |
| Sex | | | <input type="checkbox"/> Female | | | <input type="checkbox"/> Male | | | <input type="checkbox"/> Unknown | | | | | | | | | | | | | |
| Date of birth | | | D | D | M | M | Y | Y | Y | Y | Y | Date of death | | | D | D | M | M | Y | Y | Y | Y |
| Frame A: Medical data: Part 1 and 2 | | | | | | | | | | | | | | | | | | | | | | |
| 1 Report disease or condition directly leading to death on line a Report chain of events in due to order (if applicable) State the underlying cause on the lowest used line | | a | Cause of death | | | | | | | Time interval from onset to death | | | | | | | | | | | | |
| | | b | Due to: | | | | | | | | | | | | | | | | | | | |
| | | c | Due to: | | | | | | | | | | | | | | | | | | | |
| | | d | Due to: | | | | | | | | | | | | | | | | | | | |
| 2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition) | | | | | | | | | | | | | | | | | | | | | | |
| Frame B: Other medical data | | | | | | | | | | | | | | | | | | | | | | |
| Was surgery performed within the last 4 weeks? | | | | | | <input type="checkbox"/> Yes | | <input type="checkbox"/> No | | <input type="checkbox"/> Unknown | | | | | | | | | | | | |
| If yes please specify date of surgery | | | | | | D | D | M | M | Y | Y | Y | Y | | | | | | | | | |
| If yes please specify reason for surgery (disease or condition) | | | | | | | | | | | | | | | | | | | | | | |
| Was an autopsy requested? | | | | | | <input type="checkbox"/> Yes | | <input type="checkbox"/> No | | <input type="checkbox"/> Unknown | | | | | | | | | | | | |
| If yes were the findings used in the certification? | | | | | | <input type="checkbox"/> Yes | | <input type="checkbox"/> No | | <input type="checkbox"/> Unknown | | | | | | | | | | | | |
| Manner of death: | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Disease | | | <input type="checkbox"/> Assault | | | <input type="checkbox"/> Could not be determined | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Accident | | | <input type="checkbox"/> Legal intervention | | | <input type="checkbox"/> Pending investigation | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Intentional self harm | | | <input type="checkbox"/> War | | | <input type="checkbox"/> Unknown | | | | | | | | | | | | | | | | |
| If external cause or poisoning: | | | | | | Date of injury | | D | D | M | M | Y | Y | Y | Y | | | | | | | |
| Please describe how external cause occurred (If poisoning please specify poisoning agent) | | | | | | | | | | | | | | | | | | | | | | |
| Place of occurrence of the external cause: | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> At home | | <input type="checkbox"/> Residential institution | | <input type="checkbox"/> School, other institution, public administrative area | | | <input type="checkbox"/> Sports and athletics area | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Street and highway | | <input type="checkbox"/> Trade and service area | | <input type="checkbox"/> Industrial and construction area | | | <input type="checkbox"/> Farm | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Other place (please specify): | | | | | | <input type="checkbox"/> Unknown | | | | | | | | | | | | | | | | |
| Fetal or infant Death | | | | | | | | | | | | | | | | | | | | | | |
| Multiple pregnancy | | | | | | <input type="checkbox"/> Yes | | <input type="checkbox"/> No | | <input type="checkbox"/> Unknown | | | | | | | | | | | | |
| Stillborn? | | | | | | <input type="checkbox"/> Yes | | <input type="checkbox"/> No | | <input type="checkbox"/> Unknown | | | | | | | | | | | | |
| If death within 24h specify number of hours survived | | | | | | | | Birth weight (in grams) | | | | | | | | | | | | | | |
| Number of completed weeks of pregnancy | | | | | | | | Age of mother (years) | | | | | | | | | | | | | | |
| If death was perinatal, please state conditions of mother that affected the fetus and newborn | | | | | | | | | | | | | | | | | | | | | | |
| For women, was the deceased pregnant? | | | | | | <input type="checkbox"/> Yes | | <input type="checkbox"/> No | | <input type="checkbox"/> Unknown | | | | | | | | | | | | |
| <input type="checkbox"/> At time of death | | | | | | | | Within 42 days before the death | | | | | | | | | | | | | | |
| <input type="checkbox"/> Between 43 days up to 1 year before death | | | | | | | | Unknown | | | | | | | | | | | | | | |
| Did the pregnancy contribute to the death? | | | | | | <input type="checkbox"/> Yes | | <input type="checkbox"/> No | | <input type="checkbox"/> Unknown | | | | | | | | | | | | |

References

PRIMARY REFERENCE

World Health Organization (2016). International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Vol. 2, 10th edn, World Health Organization, Geneva

OTHER USEFUL REFERENCES

Core curriculum for certifiers of underlying cause of death

This curriculum can be found at <http://www.cdc.gov/nchs/data/icd9/CurriculumCertification03-08-078.pdf>.

Physicians' Handbook on Medical Certification of Death (US)

This handbook can be found at http://www.cdc.gov/nchs/data/misc/hb_cod.pdf.

Cause of Death Certification information paper (Australia)

This paper can be found at: [http://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/FF2D66033DF42F32CA257030007790BD/\\$File/1205055001_2004.pdf](http://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/FF2D66033DF42F32CA257030007790BD/$File/1205055001_2004.pdf).

WHO online training tool

WHO has developed an online ICD-10 training tool. This interactive self-training tool helps you to understand and use ICD-10. User-specific paths include a fast track for people such as managers, and an in-depth training path for coders. This online tool has one module on cause-of-death certification to help doctors learn correct death certification practices.

This training tool can be found at: <http://apps.who.int/classifications/apps/icd/icd10training/>.

New York City Health Department online training tool

This interactive self-training tool has been developed as a prerequisite for certifying deaths in New York City. While specific to New York City, the concepts provided are relevant. The training can be found at <http://www.nyc.gov/html/doh/media/video/icdr/>

Hawaii State Department of Health

This interactive self-training tool was developed by the Hawaii State Department of Health. While specific to Hawaii, the concepts provided are relevant. The training can be found at <http://cod.doh.hawaii.gov/>

Notes

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The program partners on this initiative include: The University of Melbourne, Australia; CDC Foundation, USA; Vital Strategies, USA; Johns Hopkins Bloomberg School of Public Health, USA; World Health Organization, Switzerland.

Civil Registration and Vital Statistics partners:



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CRICOS Provider Code: 00116K

Version: 1016-03

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