



SAMRC Burden of Disease Research Unit | July 2020



NCODV competency test Oct 2019

Certifier ID

1. Why is mortality data important? Select the correct statement

- a. To prioritise health resource allocation
- b. To monitor public health programs
- c. To monitor stock outs of ARVs
- d. To explain trends and differentials in overall mortality
- e. To monitor climate change
- f. (a,b,d)
- g. (a,b,e)

2. What is the definition of a verbal autopsy? Select the correct answer

- a. An interview with a pathologist about a post mortem.
- b. A structured interview with relatives/close care giver of the deceased, to obtain information on the on the clinical symptoms, signs and events during the illness leading to death.
- c. A structured interview with the doctor who cared for a person during their last illness.

3. A person can only die once yet the recording of the cause of death is complex? Select the statement that explains the reasons for this.

- a. Multiple Conditions that reflect sequential stages in the natural history of one disease may be present
- b. Multiple conditions that reflect complications arising from an intermediate condition may be present
- c. Multiple conditions that reflect different diseases existing at the same time
- d. All of the above
- e. None of the above

4. Why does the WHO recommend the use of the international medical certificate of cause of death form? Select the most correct statement.

- a. The form only allows recording of the underlying cause of death
- b. The form enables recording of several causes of death
- c. The form allows for capture of the causal sequence leading to death
- d. The form allows for the capture of the causal sequence leading to death, as well as any contributing conditions, thus enabling the identification of the underlying cause of death, which is the single cause that is used for analysis. Public health interventions are aimed at preventing the underlying cause of death.

5. What are the three basic principles of research involving humans according to the Belmont Report? Select all.

- Independence
- Autonomy
- Efficacy
- Beneficence
- Justice

6. How do ethical considerations for public health research differ from those for clinical research? Select correct statement.

- a. Individual interests are always paramount.
- b. The interests of a population may outweigh those of an individual
- c. Justice for all is predominant
- d. Consider forms of harm other than physical.
- e. Breach of confidentiality may be permitted under certain conditions
- f. (a,d, e)
- g. (b,c,d,e)

7. The underlying cause of death is defined as?

- a. Any morbid condition that contributed to death.
- b. The disease or injury which initiated the train of events leading directly to death
- c. Sequential combinations of causes
- d. The circumstances of the accident or violence which produced the fatal injury
- e. (b, d)
- f. (a, b, c)

8. Select the correct statements with reference to the WHO recommended medical cause of death certificate. Read statements carefully.

- a. The causal sequence is entered into Part 1.
- b. The underlying cause of death should be reported on the lowest completed line of Part 2.
- c. Any conditions that contributed to the death but do not form part of the causal sequence should be reported in Part 2.
- d. The immediate cause of death should be reported on line a of Part 1
- e. (a,c,d)
- f. (a,b,c,d)

9. A 10 year old child was brought into hospital with repeated convulsions and an infected puncture wound on his right foot. His mother said that he had stepped on a thorn two weeks before whilst walking to school. The doctor diagnosed tetanus and admitted the child. During the night he had a severe convulsion and died of asphyxia. Indicate which line of the medical certificate of cause of death the following conditions should be entered (Part Ia, Ib, Ic, Id, Part II). The UCOD should be reported on the lowest completed line of Part I.

a. Tetanus infection

b. Stepped on a thorn whilst walking to school

d. Convulsions

10. A 35 year old woman presented with a three month history of productive cough, haemoptysis and severe weight loss. CXR was suggestive of pulmonary TB. Acid fast bacilli were present in the sputum. An HIV test was positive. She was admitted to hospital for treatment. During the night she had a massive episode of haemoptysis and died from asphyxia. Select the correct death certificate from reported sequences shown below.

- A. Part Ia Haemoptysis; Ib Tuberculosis; Ic _____; Id _____; Part II HIV/AIDS
- B. Part Ia Asphyxia; Ib Haemoptysis; Ic Tuberculosis; Id _____; Part II HIV/AIDS
- C. Part Ia Haemoptysis; Ib Tuberculosis; Ic HIV/AIDS; Id _____; Part II _____

11. A patient died from an intracerebral haemorrhage caused by cerebral metastases from a primary malignant neoplasm of the left main bronchus.

a. What is the immediate cause of death?

b. What is the intermediate cause of death?

c. What is the underlying cause of death?

12. A diabetic man who had been under insulin control for many years developed ischemic heart disease and died suddenly from a myocardial infarction. Select the correct sequence A, B or C shown immediately below for scenarios a and b.

12 a. If the physician considered that the diabetes was a risk factor for the heart condition

- A. Part Ia: Myocardial infarction Ib: Chronic ischaemic heart disease Ic: _____ Id: _____ Part II: Diabetes mellitus
- B. Part Ia: Myocardial infarction Ib: Chronic ischaemic heart disease Ic: Diabetes mellitus Id: _____ Part II _____
- C. Part Ia: Acute renal failure Ib: Nephropathy Ic: Diabetes mellitus Id: _____ Part II: Chronic ischaemic disease

12 b. If the man had instead died from some other expected complication of the diabetes, such as nephropathy, the heart condition playing only a subsidiary part in the death

- A. Part Ia: Myocardial infarction Ib: Chronic ischaemic heart disease Ic: _____ Id: _____ Part II: Diabetes mellitus
- B. Part Ia: Myocardial infarction Ib: Chronic ischaemic heart disease Ic: Diabetes mellitus Id: _____ Part II _____
- C. Part Ia: Acute renal failure Ib: Nephropathy Ic: Diabetes mellitus Id: _____ Part II: Chronic ischaemic disease

13. Select the causal sequence/s that is/are best described by the statements below.

13 a. This causal sequence is correct as condition on line Ia is due to condition reported on line Ib

- A. Part Ia: Diabetes mellitus Ib: Myocardial infarction Ic: Prostate cancer Id: _____ Part II: _____
- B. Part Ia: Pneumocystis carinii pneumonia Ib: HIV/AIDS Ic: _____ Id: _____ Part II: Diabetes mellitus
- C. Part Ia: HIV Ib: TB Ic: Diarrhoea Id: _____ Part II: _____

13 b. These causal sequences are incorrect as the condition reported on line Ia cannot be due to the condition reported on line Ib.

- A. Part Ia: Diabetes mellitus Ib: Myocardial infarction Ic: Prostate cancer Id: _____ Part II: _____
- B. Part Ia: Pneumocystis carinii pneumonia Ib: HIV/AIDS Ic: _____ Id: _____ Part II: Diabetes mellitus
- C. Part Ia: HIV Ib: TB Ic: Diarrhoea Id: _____ Part II: _____

13 c. This causal sequence has been entered incorrectly: the underlying cause is reported in line Ia instead of in the lowest completed line.

- A. Part Ia: Diabetes mellitus Ib: Myocardial infarction Ic: Prostate cancer Id: _____ Part II: _____
- B. Part Ia: Pneumocystis carinii pneumonia Ib: HIV/AIDS Ic: _____ Id: _____ Part II: Diabetes mellitus
- C. Part Ia: HIV Ib: TB Ic: Diarrhoea Id: _____ Part II: _____

» 14. True or false:

14 a. There must always be an entry on line I a) of the medical certificate of cause of death.

- True
- False

14 b. The causal sequence leading to death should be reported in Part II

- True
- False

14 c. An entry on line I a) can be the only entry in Part I

- True
- False

14 d. The underlying cause of death should always be reported on

1. The lowest completed line in Part I
2. Part I line d

14 e. Conditions that contribute to the death but do not fit into the causal sequence should be entered in Part II

- True
- False

15. What essential information is required in addition to the causal sequence/main cause of death in the fetus or infant, when certifying a perinatal death?

- a. The mode of death
- b. Any maternal diseases or conditions affecting the fetus or infant
- c. Whether the baby was illegitimate or not
- d. The health status of the father of the baby
- e. None of the above

16. Select the correct statement of the cause of death for the following case. A patient with known diabetes, which was poorly controlled during her first pregnancy, 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 died on the 2nd day. Autopsy showed truncus arteriosus.

- Main disease fetus: Diabetes mellitus Other disease fetus: Truncus arteriosus Main maternal disease: megaloblastic anaemia Other maternal disease: _____
- Main disease fetus: Truncus arteriosus Other disease fetus: Hypoglycaemia Main maternal disease: Diabetes mellitus Other maternal disease: megaloblastic anaemia
- Main disease fetus: Hypoglycaemia Other disease fetus: Truncus arteriosus Main maternal disease: Diabetes mellitus Other maternal disease: megaloblastic anaemia

17. Which part of the statement of perinatal causes of death should be selected when it is necessary to select only one condition for tabulation of perinatal mortality by cause (eg. Where early neonatal deaths are incorporated in single-causes tables of death at all ages)?

- a. Part (a) main diseases in fetus or infant
- b. Part (b) other diseases in fetus or infant
- c. Part (c) main maternal disease affecting fetus or infant
- d. Part (d) other maternal diseases affecting fetus or infant
- e. Part (e) other relevant circumstances

18. Select the correct certificate below for the following case. A woman who had anaemia during pregnancy, and after delivery had a postpartum haemorrhage due to uterine atony, and died as a result of hypovolaemic shock. (1a - Part 1 line a; 1b - Part 1 line b etc.)

- A. Part 1a Anaemia; 1b Postpartum haemorrhage; 1c Uterine atony; 1d _____; Part II _____
- B. Part 1a Postpartum haemorrhage; 1b Uterine atony; 1c _____; 1d _____; Part II _____
- C. Part 1a Hypovolemic shock; 1b Postpartum haemorrhage; 1c Uterine atony; 1d ____; Part II Anaemia

19. A person dies from traumatic shock after sustaining multiple fractures after accidentally falling off a roof whilst painting. Select the correct statements.

- When death occurs as a consequence of injury or violence, the external cause (circumstance of the injury) should be listed as the underlying cause.
- The circumstances of the injury is an accidental fall off a roof whilst painting.
- The underlying cause of death is accidental fall off a roof whilst painting.
- All of the above
- None of the above

20. Select the correct statement regarding the certification of diabetes as a cause of death

- Diabetes mellitus can be the underlying cause of death, or a risk factor for another underlying cause of death.
- As a general rule, if patient dies from a complication of diabetes mellitus (ie diabetic nephropathy) document diabetes (type I or II) as the underlying cause of death.
- If a patient dies from stroke or myocardial infarction, document diabetes in Part 2 as a risk factor.
- All of the above
- None of the above

21. Select the correct statements regarding ill-defined conditions

- 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 UCOD if at all possible.
- Septicaemia should not be entered as an underlying cause of death if the source of the infection can be identified.(ie septic abortion; community acquired pneumonia)
- Symptoms and signs such as chest pain, cough and fever should not be reported on a certificate of cause of death
- The mode of dying such as cardiopulmonary arrest; brain death; asphyxia; hypoxia etc. should not be reported on the death certificate
- Reporting ill-defined conditions on death certificate is of no value for public health as they do not provide any information for decision makers to guide them in designing preventive health programs.