UNIT NO. 6

CERTIFYING CAUSE OF DEATH IN FAMILY PRACTICE

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ABSTRACT

The Certificate of Cause of Death (CCOD) is an important legal document. The statutory duty of completing the CCOD is imposed upon a licensed medical practitioner by the Registration of Births and Deaths Act. The family physician is often in the best position to certify the cause of death when the death occurs in the community. Medical practitioners are permitted to issue CCODs ONLY when the cause of death is known and natural and if the deceased is not in statutory care. Deaths that are reportable to the Coroner include deaths from unnatural causes, iatrogenic events, or if circumstances surrounding the death are unknown or suspicious. Proper certification of cause of death is essential to avoid problems with the authorities and added grief to the family of the deceased. However, with better understanding of the process of completing the CCOD, the family physician can more confidently perform this duty and render a final professional service to their patients.

Keywords:
Death Certification, Cause Of Death, Coroner's Case, Certificate Of Cause Of Death, CCod

SFP2015; 41(2): 44-47

INTRODUCTION

According to the 2013 statistics on death in Singapore, 26.9% of all deaths occurred in residence.[1] The responsibility of certifying deaths in the community often falls to the family physician. Oftentimes, the family physician is also the medical practitioner most familiar with the patient's medical history and is in the best position to certify the cause of death. As such, the family physician should be familiar with the proper certification of death in order to fulfil his or her statutory duty, and to avoid any problems with the relevant authorities.[2,3] The consequences of improper death certification may range from having to make a statutory declaration to the Police in order to correct clerical errors, to Disciplinary Committee inquiries by the Singapore Medical Council and possible censure. It is also important to keep in mind that any delays resulting from the improper certification of death can result in additional grief and distress to the next-of-kin.

Family physicians are often uncomfortable with many aspects of certifying deaths,[4,5] and specifically with the completion of the Certificate of Cause of Death (CCOD). This article will provide practical information on certifying the cause of death, and increase the familiarity of family physicians in this duty.

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The Certificate of Cause of Death

The CCOD is a document of legal importance to the doctor and to the family of the deceased.

The statutory duty of filling out the CCOD is imposed upon all licensed medical practitioners in Singapore by section 19(1) of the Registration of Births and Deaths Act (Chapter 267), which states:

"Every medical practitioner, upon the death of any person who has during his last illness been attended by that medical practitioner, shall sign and deliver within 12 hours of the death to one of the persons required by this Act to furnish particulars of the death or to any deputy registrar of the local registration area within which the death has occurred, a certificate in the prescribed form."[6]

The CCOD is required for the family of the deceased to apply for a Death Certificate and a Burial or Cremation Permit. Furthermore, it may have an impact on issues such as insurance claims and death benefits.

The CCOD also has a significant secondary role in the compilation of population and healthcare statistics.

TO CERTIFY OR NOT TO CERTIFY: Understanding when to refer to the Coroner

When certifying cause of death, it is important for the medical practitioner to be familiar with situations where death is reportable to the Coroner (see Table 1). Simply put — if the death is reportable to the Coroner, the medical practitioner should not certify the cause of death and doctors should not be pressured by relatives to sign the CCOD in any of these situations. In general, medical practitioners are permitted to issue CCODs ONLY when the cause of death is known AND the cause of death is natural AND if the deceased is not in statutory care.

The foremost reason to report a death to the Coroner is if the death is of an unnatural cause. In accordance with the Coroners Act (Chapter 63A), all deaths of an unnatural cause should not be certified by the medical practitioner and must be reported to the Police who will then report it to the Coroner. Failing to report a Coroner's case is a criminal offence under the Coroners Act.[7]

Examples of unnatural causes of death include homicide, suicide, accidents, electrocution, drowning, drug overdose, asphyxia and choking. When called to certify the cause of death, it is important to identify suspicious circumstances in the history. During the physical examination of the deceased, look out for physical evidence suggestive of foul play or inconsistencies between the medical history and the

Table 1 . Deaths reportable to the Coroner

1	When the cause of death is unnatural.
2	When the cause of death has occurred in suspicious circumstances.
3	When the death is caused by occupational disease.
4	When the death is related to a therapeutic event.
5	When the death occurs in pregnancy, during delivery, or within 28 days of delivery, or as a result of induced abortions.
6	When there is insufficient information to certify the cause of death.
7	When the deceased's identity cannot be determined.
8	When the deceased is a person held in statutory care.

circumstances of death. Physical signs suggesting unnatural cause of death include wounds, bruising, ligature marks over the neck, haematomas over the head and petechiae in the sclera and conjunctiva (suggesting asphyxia).[3]
Deaths from occupational diseases, such as pneumoconiosis, are also considered unnatural and reportable to the Coroner.

Deaths related to therapeutic events are also reportable to the Coroner. Examples include deaths related to invasive medical procedures and adverse drug or transfusion reactions, such as anaphylaxis. Deaths that occur in pregnancy, during delivery or within 28 days of delivery, or as a result of induced abortions should also be reported to the Coroner as these cases may often be related to therapeutic events.[2]

Insufficient information can also lead to deaths being reportable to the Coroner. One such scenario is when a medical practitioner has insufficient information to certify the cause of death and unnatural causes cannot be excluded. Another situation is when the identity of the deceased cannot be verified. For example, a deceased is brought into a clinic with no medical information or original legal identification documents such as passport or national registration identity card (NRIC). Photocopies of identification documents should not be used in isolation to ascertain the identity of the deceased as it is difficult to verify the authenticity of the information. When faced with such a predicament, the medical practitioner should contact the police for assistance and the death may be referred to the coroner if the authorities are unable to verify the identity of the deceased.

In Singapore, the death of any persons in official care is to be reported to the Coroner.[5] Examples of such persons include prisoners, persons in police remand, and destitute persons detained involuntarily in welfare homes in accordance with the Destitute Persons Act.[8] Persons admitted to institutions on a voluntary basis (such as nursing homes) do not require referral to the Coroner and a CCOD may be issued if the cause of death is natural.

Completing the Certificate of Cause of Death
The certification portion of the CCOD has two parts.

Part I of the CCOD
Part I is for reporting the sequence of events leading to death, working backwards from the final disease or condition resulting in death. Part I of the CCOD consists of lines:
- I(a) Immediate disease or condition causing death, due to (as a consequence of);
- I(b) Disease or condition that gave rise to above (intervening condition or underlying cause), due to (as a consequence of); and
- I(c) Further underlying care, if applicable.

The sequence of events to be filled in part I of the CCOD is as follows. Line I(a) is for the final condition and definitive cause of death. If the cause of death stated in line I(a) can fully describe the events leading to death on its own, no entry is necessary in line I(b) and I(c). Line I(b) is for the disease condition that gave rise to the cause of death in line 1(a). I(b) may have further resulted from another condition and that can be filled up in line I(c). Only one cause should be entered on each line of Part I.

Part II of the CCOD
Part II is for reporting other significant conditions which were present at the time of death and have contributed to death but not resulting in the underlying cause of death given in part I and cannot be placed in the sequence in Part I.

For instance, diabetes mellitus and hyperlipidaemia do not cause myocardial infarction but are significant risk factors for coronary artery disease. Hence diabetes mellitus and hyperlipidaemia may be included in Part 2 of the CCOD. It is not necessary to list all comorbid conditions in Part II of the CCOD if the conditions are not relevant to the cause of death.

In this example, the CCOD would look like this:
Part I(a) Acute myocardial infarction

I(b) Ischaemic heart disease
Part II Diabetes mellitus and systemic hypertension

Causes of Death

The information entered in the certification portion of the CCOD needs to clearly convey the aetiology of the death. Any known natural cause of death may be used. The cause of death information should be the medical practitioner's best medical opinion. The cause of death should never be reported as "unknown". If the cause of death is not known, then the death is reportable to the Coroner.[3]

The terms "cause of death", "mode of death" and "mechanism of death" will inevitably come up in any discussion on death certification and can cause confusion. Understanding these three terms is important in the proper completion of any CCOD.

The term "cause of death" refers to a pathological diagnosis of an organ that has resulted from underlying medical conditions, and that could have led to death through the natural course of events.[10] The aetiology is implied in the diagnosis. Examples include acute myocardial infarction, ischaemic heart disease, pneumonia, and stroke.

The term "mode of death" refers to the way by which death has resulted and usually refers to organ failure. Examples include end stage renal failure, liver failure and congestive heart failure.

"Mechanism of death" describes the steps leading to death from the underlying cause. Examples include cardiac arrhythmias, hemorrhage, hypoxia and sepsis.

In both the "mode" and "mechanism" of death, the underlying aetiology is not explicit or implied. The "Mode" and "Mechanism" of death can arise from natural and unnatural causes. Hence these terms cannot be used alone in certifying the cause of death. For example, sepsis can arise from a natural cause and an unnatural cause such as an open wound from a traffic accident. If the use of the "Mode" or "Mechanism" of death in a CCOD is unavoidable, it must be qualified with an underlying aetiology. Otherwise, the CCOD will be rejected.[2,10]

Examples of CCODs using "mode" or "mechanism" of death include:
Example 1:
Part I(a) End stage renal failure
I(b) Proliferative nephropathy
I(c) Systemic Lupus Erythematosus

Part II Hypertension

Example 2:
Part I(a) Liver failure
I(b) Hepatocellular carcinoma
I(c) Chronic Hepatitis B infection

Vague causes of death such as old age, senile dementia, senile debility, bed sores and sudden death are not acceptable and will cause the CCOD to be rejected.[3,9] On a similar note, terminal events such as cardiac arrest or respiratory arrest should also not be used.

Words such as "fracture", "injury" and "accident" imply an unnatural cause of death and if used will also result in the rejection of the CCOD.[3] These words are best avoided when filling in a CCOD. The only "accident" that is acceptable in a CCOD is "cerebral vascular accident" (but why not use the diagnosis "Stroke" instead).

Common errors in completing the Certificate of Cause of Death

Common lapses in completing the CCOD include listing the mode of death without an underlying cause, improper sequencing in part I of the CCOD, use of abbreviations, illegible handwriting and absence of time intervals.

Good practices for writing an acceptable CCOD include being concise, avoiding abbreviations (e.g. Acute Myocardial Infraction and not AMI) and writing clearly in capital letters. Medical practitioners should not write anything in the CCOD that they are unsure about. To reiterate, the CCOD is an important legal document and medical practitioners cannot change their minds without potential legal and professional repercussions.

CONCLUSION

Certification of cause of death may seem unnecessarily complex and a heavy burden on medical practitioners. However, with better understanding of the process of completing the CCOD, family physicians can more confidently perform this duty and render a final professional service to their patients.

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LEARNING POINTS

- **Certification of cause of death by completing a CCOD is a statutory duty imposed on all licensed medical practitioners.**
- **Medical practitioners are permitted to issue CCODs ONLY when the cause of death is known and natural, and if the deceased is not in statutory care.**
- **It is important to know the situations in which a death is reportable to the Coroner. If the death is reportable to the Coroner, the medical practitioner should not issue a CCOD.**