

Cause of Death and the Death Certificate

The Cause-of-Death Section

This basic summary will concentrate on the cause-of-death section because it is the part of the death certificate completed by the attending physician, medical examiner, or coroner. The following generic template will be used to provide examples of *cause-of-death statements*. Note that the cause-of-death statement contains Part I and Part II. The use of Part I and Part II will be described in further detail below. This general template for the cause-of-death statement is applicable to each state.

Part I	A.
	Due to, or as a consequence of:
	B.
	Due to, or as a consequence of:
Part II	C.
	Due to, or as a consequence of:
D.	
OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	

The items shown above are the critical ones in terms of the cause-of-death statement itself. Other related items, such as dates, places, times, role of tobacco, pregnancy information, and other items in the cause-of-death section, will be discussed individually because they are not as integrally related to the cause-of-death statement itself, and there are rules and procedures that need to be discussed for each item.

In general, the cause-of-death section is designed to record a sequence of conditions in Part I and to list other significant contributing conditions in Part II.

Part I	A. Most recent condition
	Due to, or as a consequence of:
	B. An older condition
	Due to, or as a consequence of:
Part II	C. An even older condition
	Due to, or as a consequence of:
D. Oldest condition (what started it all)	
OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	
Something that contributed to death but did not cause the sequence listed above in Part I	

General Concepts Applicable to All Death Certificates

Certifier of Death

The certifier of death is the physician, coroner, or medical examiner who completes the cause-of-death section of the death certificate and signs the certificate to attest that the named decedent died of the causes stated, and at the place, date, and time stated. The cause of death reported is the best opinion of the certifier, based on available information, and may be changed later, if needed. There is little liability in serving as certifier unless one is arbitrary or capricious.

Underlying Cause of Death

The *underlying cause of death* is the disease or injury (or poisoning) that initiated the chain of events that led directly and inevitably to death.

Case Scenario 1. A 68-year-old man with well-documented coronary artery disease, requiring nitroglycerin, is found dead in bed. An autopsy is not performed, and it is unknown whether he had an acute myocardial infarction or a fatal dysrhythmia without infarction. The family was well known to the personal physician who had been treating him, and there was no evidence of injury or foul play. Based on information known to the physician, the underlying cause of death is coronary artery atherosclerosis, because it started the chain of events leading to death.

Part I	A. Coronary artery atherosclerosis
	Due to, or as a consequence of:
	B.
	Due to, or as a consequence of:
Part II	C.
	Due to, or as a consequence of:
	D.
	OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I

When writing cause-of-death statements, the certifier should try to write only one condition on each line used in Part I, as shown above. When more than one condition is listed on a given line, the person coding the cause of death for mortality statistics purposes may be confused about which is the most important. As with all rules, the one-condition-per-line rule occasionally needs to be broken or liberally interpreted to accurately report the cause of death. Some subsequent examples will illustrate this “bending of the rules.”

Other Significant Conditions (Part II)

Other significant conditions are pre-existing or coexisting diseases or injuries that contributed to death but did not result in the underlying cause of death. They may also include conditions that resulted from the underlying cause of death but could not be reported in Part I because of space limitations. Subsequent examples below will illustrate these points.

Case Scenario 2. The history is exactly the same as Scenario 1, except the man also has a significant history of hypertension, based on blood pressure recordings and EKG and x-ray findings that show left ventricular hypertrophy. The physician believes that coronary artery atherosclerosis was the most significant clinical problem, but that the enlarged heart from long-standing hypertension exacerbated the condition by increasing oxygen and blood flow demand.

Part I	A. Coronary artery atherosclerosis
	Due to, or as a consequence of:
	B.
	Due to, or as a consequence of:
Part II	C.
	Due to, or as a consequence of:
	D.
	OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I Hypertension

The hypertension was a coexisting condition that contributed to death but did not result in the coronary artery atherosclerosis. Thus, hypertension is reported in Part II as an other significant condition.

Immediate Cause of Death

An underlying cause of death may result in a subsequent, more acute condition that actually causes death. An *immediate cause of death* is the final disease, injury, or complication—resulting from the underlying cause of death—that directly caused death.

Cause of Death and the Death Certificate

Case Scenario 3. A 55-year-old woman had a long-standing history of hypertension. Over the years, she developed progressive renal failure, which ultimately required dialysis. Dialysis became progressively less effective, and she died with severe uremia.

Part I	A. Dialysis-dependent renal failure
	Due to, or as a consequence of:
	B. Hypertension
	Due to, or as a consequence of:
Part I	C.
	Due to, or as a consequence of:
	D.
Part II	OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I

Dialysis-dependent renal failure is the *immediate* cause of death, and hypertension is the *underlying* cause of death. Hypertension started the chain of events and led to renal failure, which directly caused death and therefore is the *immediate* cause of death.

Case Scenario 4. A 54-year-old woman had been treated for hypertension for more than 10 years. She arrived at the emergency room complaining of severe headache. She soon became unresponsive and died. Autopsy showed an intracerebral hemorrhage in the basal ganglia, which had ruptured into the ventricular system of the brain.

Part I	A. Intra-cerebral hemorrhage
	Due to, or as a consequence of:
	B. Hypertension
	Due to, or as a consequence of:
Part I	C.
	Due to, or as a consequence of:
	D.
Part II	OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I

Intracerebral hemorrhage, especially in the basal ganglia region, is a known complication of hypertension. Hypertension is the *underlying* cause of death, and intracerebral hemorrhage (stroke) is the *immediate* cause of death.