

REPORTING CAUSE OF DEATH

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INTRODUCTION

DEATH AND PAPERWORK

Death certificates combine two of life's most serious and unavoidable activities: death and paperwork. The cause of death certifier is responsible for the most difficult part of the death certificate. The certifier is expected to report what diseases, injuries, or other conditions caused death. Additionally, this information is supposed to be reported in a format that identifies how the conditions related to each other and to the death. The certifier is asked to report the immediate cause of death, contributing conditions and, most importantly, the underlying cause of death.

Despite the complexity of this process, many people still refer to it as "signing the death certificate." That's a major understatement!

This instruction manual was prepared by the Arkansas Center for Health Statistics for physicians, coroners, hospice RNs, and other persons responsible for completing and signing the cause of death section of the Arkansas death certificate. It should also be useful to others involved in the completion and processing of the death certificate and those who want to know more about the source of cause of death data.

The Health Department's Vision Statement says, "Optimal health for all Arkansans to achieve maximum personal, economic and social impact." Cause of death information reported on death certificates is an important part of this process. Your participation in the collection of this information is essential and appreciated.

For questions not covered in this manual, contact Marilea Brock or Felicia Hoston or, refer to the supplemental reference materials listed under

FREQUENTLY ASKED QUESTIONS

➤ **WHY WAS I SENT THIS CAUSE OF DEATH QUERY FORM?**

Did you read both sides of the query form? If you still are unsure what to do, contact Marilea Brock at 501-661-2497 or at Edyth.Brock@arkansas.gov.

➤ **I DON'T KNOW THE CAUSE OF DEATH. WHAT DO I DO?**

See Unknown and Uncertain Causes of Death.

➤ **DO I HAVE TO COMPLETE THE DEATH CERTIFICATE AT THE TIME OF DEATH?**

No! State law gives all certifiers two work days in which to complete the cause of death section and sign the death certificate. No one can require the certifier to complete and sign the death certificate at the time of death or at the death scene.

A death certificate is NOT required prior to removing the body from the death scene. The funeral home may remove the body if death has been pronounced and the physician or appropriate official (county coroner or state medical examiner) has been notified and permits removal of the body.

In fact, many funeral homes complete Items 1-17e of the certificate before giving it to the certifier to complete and sign the cause of death section.

It might be convenient and time-saving to complete the cause of death and sign the certificate at the time of death. However, this often results in inadequate reporting of the cause of death. The most important medical information on the death certificate is to identify the underlying cause of death. In many cases, the underlying cause of death cannot be determined without reviewing the complete medical history or record and/or contacting the deceased's regular physician.

➤ **DOES THE PRONOUNCER ALSO HAVE TO COMPLETE THE DEATH CERTIFICATE?**

No. The person who pronounces death may not know enough about the deceased's medical history to adequately identify the causes of death, especially the underlying cause of death. One person may pronounce death so the body can be removed, and then the cause of death may be completed and signed later by the deceased's regular physician or another person who is familiar with the deceased's medical history.

In 2008, the time pronounced dead and the Pronouncer's name and title have been added to the certificate. Also, note that Item 26a, Certifier, now differentiates between "certifying physician" and "pronouncing & certifying physician." If the physician who signs 26a did not also pronounce death, he or she should check the "certifying physician" box. If the same physician pronounced death and signed 26a, he or she should check the "pronouncing & certifying physician" box.

➤ **IS THERE A LIST OF CONDITIONS THAT CAN BE REPORTED?**

No. Such a list would be very long! Also, such a list would imply that terms not on the list should not be used on the death certificate. The National Center for Health Statistics instructs states NOT to use “pick lists” of allowable medical terms.

There are, however, lists of conditions that do not adequately identify the underlying cause of death. These are not forbidden terms, just terms that require further explanation. See also [TERMS THAT DON'T IDENTIFY UNDERLYING CAUSE OF DEATH](#)

➤ **YOU SENT ME A QUERY FORM. DO I NEED TO SUBMIT A NEW CERTIFICATE?**

No. We've already accepted and filed a certificate for that death. Add or correct information on the same query form you were sent.

➤ **I REPORTED AN INJURY, BUT CHECKED MANNER OF DEATH “NATURAL.” DO I STILL HAVE TO FILL IN INJURY ITEMS 25a-g?**

Yes. Even if you checked “natural”, you have still reported an injury as a cause of death. Complete items 25a-g, and notify the coroner. See also [WHAT IS AN INJURY](#)

➤ **DO I HAVE TO COMPLETE ALL FOUR LINES, A/B/C/D?**

No. If you can identify the complete sequence of conditions causing death in less lines, that's acceptable. If death occurred directly from a single condition that had no complications, the immediate cause of death can also be the underlying cause of death. In that case, line (a) is the only line that needs to be completed. Never leave line (a) blank.

➤ **MY COMPUTER WON'T LET ME REPORT CERTAIN CAUSES OF DEATH.**

Are you reporting causes of death using an ICD medical code-based computer program or printout? If so, there's a good chance you are not reporting the conditions as specifically as you should. ICD codes are for insurance billing and statistics, not reporting causes of death. For example, specific causes of death such as “oat cell carcinoma of the right lung” or “mesothelioma of the lungs” are lost when you report the cause of death as the ICD code 162.9 title, “Malignant neoplasm of the bronchus and lung.”

➤ **WHERE CAN I GET CAUSE OF DEATH STATISTICS OR OTHER HEALTH STATISTICS?**

See “Data and Research” at www.Healthy.Arkansas.gov.

DEFINITIONS

Death certificates do not ask for the “primary condition”, “principal diagnosis”, “terminal diagnosis” or “comorbidity”. INSTEAD, death certificate instructions use the terms “cause(s) of death”, “immediate cause of death”, “intermediate cause(s) of death”, “underlying cause of death”, and “contributing cause(s) of death.”

CAUSE(S) OF DEATH

“Cause of death” is a morbid condition or disease process, abnormality, injury or poisoning leading directly or indirectly to death. Since conditions that did not cause death should not be reported in the cause of death section of the certificate, any medical condition you report in Items I (lines a/b/c/d) or II (contributing causes) is a cause of death.

IMMEDIATE CAUSE OF DEATH

This is the disease or condition entered on 20 Part I, line (a). This is the final disease or condition that resulted directly in death. Chronologically, it is the last medical condition to occur.

INTERMEDIATE CAUSE(S) OF DEATH

These are conditions that link the immediate cause of death to the underlying cause. Report any intermediate causes on lines between the immediate and the underlying cause.

UNDERLYING CAUSE OF DEATH

This 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.” In other words, the underlying cause of death is the disease or injury that started the sequence of medical events that led to the immediate cause of death. The underlying cause is reported on the lowest used line in Part I.

CONTRIBUTING CAUSE(S) OF DEATH

These are reported in Item 20, Part II, “Other significant conditions contributing to death but not resulting in the underlying cause given in Part I”. “Contributing causes” are diseases, injuries, or other conditions that contributed to the fatal outcome, but did not cause the condition (underlying cause) reported on the lowest used line in Part I.

EXAMPLES

Part I: Immediate cause	a)	Pulmonary embolism due to or as a consequence of	few hours
	b)	Coronary thrombosis due to or as a consequence of	2-3 weeks
	c)	Arteriosclerotic heart disease due to or as a consequence of	several yrs
	d)	(blank)	

Part II: Other significant conditions contributing to death but not resulting in the underlying cause given in Part I: Emphysema and alcoholism

Pulmonary embolism is reported as the immediate cause of death. It is reported as “due to” coronary thrombosis.

Coronary thrombosis is the intermediate cause of death. It is the complication of the underlying cause (arteriosclerotic heart disease) that caused the immediate cause (pulmonary embolism.)

Arteriosclerotic heart disease is reported as the underlying cause of death. It is the condition that started the train of medical events that resulted in the pulmonary embolism. Line (d) may be blank if the complete sequence takes less than four lines.

Emphysema and alcoholism are reported as contributing causes. They contributed to death but did not cause arteriosclerotic heart disease (the underlying cause of death.)

BASIC INSTRUCTIONS FOR REPORTING CAUSE OF DEATH

The death certificate is designed to identify causes of death and how these conditions related to each other and to the death.

The cause of death section is divided into two parts: Part I and Part II.

PART I

PART I gives four lines, a/b/c/d, on which to report the etiology (sequence) of medical conditions that led to death. This is done by reporting the conditions leading to death in a reverse-chronological sequence. Each condition in Part I should be due to the condition entered on the line below it (a due to b; b due to c; c due to d.)

Report only one condition per line in Part I. You don't have to use all four lines, a/b/c/d, but don't skip lines between conditions.

Use the "interval" box to identify the interval between onset of the condition and death.

See also [INTERVAL BETWEEN ONSET OF CONDITION AND DEATH](#)

PART II

PART II is to report significant conditions that contributed to death but did not cause the underlying cause reported in Part I. Part II may be left blank if there were no contributing causes of death.

See also [CONTRIBUTING CAUSES OF DEATH](#)

STANDARD SEQUENCE OF CAUSES OF DEATH:

- I**
- (a) immediate cause of death
 - (b) condition (if any) causing (a)
 - (c) condition (if any) causing (b)
 - (d) condition (if any) causing (c)

- II** Contributing cause(s) (if any)

If Part I is correctly completed, each condition in Part I:

- *Is a complication of the condition on the line below it.*
- *Has an interval less than or equal to the interval reported on the line below it.*

BASIC INSTRUCTIONS FOR REPORTING CAUSES OF DEATH

EXAMPLES

VALID SEQUENCE:

- I (a) Acute myocardial infarction (interval) 2 hours
 due to
- (b) Ischemic heart disease several months
 due to
- (c) Atherosclerotic coronary heart disease over 20 years
- II (Contributing causes) Diabetes and Alzheimer's dementia

In this example, the sequence (myocardial infarction due to ischemic heart disease; ischemic heart disease due to atherosclerotic coronary heart disease) is medically possible. The intervals are also possible: "two hours" is less than "several months"; "several months" is less than 20 years.

IMPOSSIBLE SEQUENCE:

- I (a) Arteriosclerotic heart disease 20 years
 due to
- (b) Influenza type "A" 1 week

Arteriosclerotic heart disease cannot be caused by flu.

A disease present 20 years can't be caused by a disease present only one week.

WRONG:

- (a) Emphysema, failure to thrive, glaucoma (intervals blank)
 due to
- (b) Multi infarct dementia and refusal to eat

This certifier has ignored the "due to" statements and does not report the conditions in a sequence. The underlying cause of death cannot be identified. This appears to be only a transcription of the medical record, or a list of the patient's co-morbidities. Glaucoma is reported even though it is highly unlikely to have been a cause of death. There should be only one condition per line on a/b/c/d. Intervals should be reported or stated "unknown."

DO NOT REPORT

The death certificate should not be used to document the deceased's entire medical history for posterity. DO NOT REPORT in part 20 I or II diseases, injuries, other conditions, or circumstances that did not cause or contribute to death.

DO NOT REPORT the following in part 20 I or II if they did not cause or contribute to death:

Medical care (surgery, procedures, tests, medication, treatment etc.)

The reason the patient was admitted to the facility (hospital, nursing home, hospice etc.),

Incidental, old, healed or former conditions,

EXCEPTION: If you cannot determine the cause of death, it is a good idea to include a statement on the certificate to explain why the cause was unknown. These statements may be reported even though they are not actually "causes of death." See also [UNKNOWN AND UNCERTAIN CAUSES OF DEATH](#)

ITEMS 25A-G ARE FOR EXTERNALLY-CAUSED INJURIES ONLY. If no injury is reported on the death certificate, leave 25a-g blank.

ABBREVIATIONS AND OTHER MYSTERIES

The death certificate is a legal and medical document that records your opinion about what caused and contributed to death. This information should be typed or legibly printed in a dark ink that is readable on the original and legal copies.

Handwriting that cannot be read makes it difficult or impossible for the family and others to know what you reported.

Abbreviations and symbols should not be used. Many are nonstandard and open to multiple different interpretations. They are easily misread and often unintelligible.

If we cannot interpret what you reported, a query will be sent to you for clarification.

INTERVAL BETWEEN ONSET OF CONDITION AND DEATH

The “Approximate interval between onset and death” should be reported for each disease, injury, or other condition reported in Part I, lines a/b/c/d.

Many conditions are present for a long time before they are diagnosed. The interval should identify how long the patient had the condition, not how long it has been since it was diagnosed. However, if the only interval information you have is the time since diagnosis, specify that with a statement such as “diagnosed 2 weeks” or “known 4 months.”

Whenever possible, report the interval specifically, such as “three minutes”, “four months”, or “25 years”. If you cannot do this, you may report the units of time in more general terms, such as “few minutes”, “several months” or “many years.” If you cannot do that, then report just the units of time, such as “minutes”, “months”, or “years.”

Interval may also be reported as a date, such as “March 13, 2007”, or a range such as “10-15 years” or “2-3 weeks.” You may also report the interval using terms such as “chronic”, “long-term”, “congenital”, “acute”, “recent”, “sudden”, “instant”, etc.

As a last resort, when the interval cannot be approximated, estimated, or generally described, report the interval as “unknown.” Don’t leave the interval blank.

Intervals on the death certificate are used to confirm that the conditions were reported in the proper sequence. Intervals are also used to assign the ICD (International Classification of Diseases) medical codes that are the basis for mortality statistics. In addition, insurance companies may use the interval to determine if a condition was pre-existing.

Although abbreviations should be avoided on death certificates, the small size of the “Interval” section often makes abbreviations necessary. If unit of time is abbreviated, be sure it is clearly understandable. Don’t use degree signs, apostrophes, or other symbols for units of time.

CONTRIBUTING CAUSES OF DEATH

Part II is for reporting “Other significant conditions contributing to death but not resulting in the underlying cause given in Part I.” This includes risk factors that contributed to death. Part II may be left blank if there were no contributing causes.

Part II may contain one or several conditions. If several conditions are reported, try to list them in the order of their significance.

You don’t have to identify the “interval” or duration between the onset of Part II conditions and death.

CONTRIBUTING CAUSES OF DEATH

EXAMPLES

- | | | |
|----------|---------------------------------------|----------------|
| I | (a) Adult failure to thrive
due to | Several months |
| | (b) Alzheimer’s dementia | Five years |

II Contributing causes: Emphysema, diabetes

This reports Alzheimer’s dementia as the underlying cause of death. The emphysema and diabetes did not cause the Alzheimer’s, but they contributed to death.

- | | | |
|----------|--------------------------------|-------------|
| I | (a) Ruptured cerebral aneurysm | minutes |
| | (b) Hypertension | over 20 yrs |

II Contributing causes: methamphetamine use

Hypertension caused the aneurysm, but methamphetamine use contributed to death. 25a-g is blank because there was no overdose or toxicity.

TERMS THAT DON'T ADEQUATELY IDENTIFY UNDERLYING CAUSE OF DEATH

Certain terms should not be reported as the only causes of death because they do not identify the underlying cause of death. These terms describe only symptoms, signs of illness, ill-defined terms, plus secondary conditions.

You may think a term is adequate because the insurance company accepted it for billing purposes. Death certificates don't have the same reporting criteria as insurance forms or medical records. The insurance company may accept a diagnosis as the reason for medical care, but that condition may not adequately identify the cause of death for the death certificate. For example, a terminal diagnosis of "failure to thrive" is adequate for admission to hospice care. However, "failure to thrive" by itself does not identify the underlying cause of death. If symptoms, signs of illness, ill-defined terms, or secondary conditions are reported on the death certificate, report what caused them.

The following types of conditions don't identify the underlying cause of death. If one or more of these conditions are the only causes of death reported, you have not adequately identified the underlying cause of death:

- Conditions that have a broad differential diagnosis: These are conditions that could have been caused by many different diseases or injuries. Examples are congestive heart failure, pneumonia, and anoxia.
- Conditions that are symptoms, signs, or complications of other diseases.
- Conditions classified to ICD-9 codes 780.0-799.9 or ICD-10 "R" codes.
- Mechanisms of death, also known as "modes of dying": These are functional defects, organ failures, and agonal events common to most or deaths, such as cardiac arrest, respiratory failure, asystole, and electromechanical dissociation.

It is very important to report the underlying cause of death on each death certificate. "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."

The terms in the following list do not identify the underlying cause of death. They identify only symptoms or signs of disease, or ill-defined conditions (conditions in ICD-9 codes 7800-7999, ICD-10 "R" codes) or modes of death (that say how but not why death occurred) or they are secondary conditions that don't identify the primary condition.

IF YOU REPORT ANY OF THE FOLLOWING CONDITIONS, IDENTIFY WHAT CAUSED IT. This is not an all-inclusive list.

If one (or more) of the following conditions is (are) the only condition(s) reported on the death certificate, you have not adequately identified the underlying cause of death.

**"Unknown/unspec. natural causes" should be used only if even a probable cause of death is unknown, and attempts to get cause of death information from other sources (primary care physician, caregivers, medical records, etc.) have resulted in no further information.*

LIST OF TERMS THAT DON'T ADEQUATELY IDENTIFY UNDERLYING CAUSE OF DEATH

anorexia	dysrhythmia	hypoxia
anoxia	dysrhythmia, cardiac	immaturity
anuria	edema	immunosuppression
arrest, cardiac	edema, cerebral	increased intracranial pressure
arrest, cardiopulmonary	edema, pulmonary	insufficiency, pulmonary
arrest, cardiorespiratory	effusion, pleural	jaundice
arrest, respiratory	exhaustion	loss, weight
arrhythmia	exsanguination	natural causes (unk)(unspec.)*
ascites	failure to thrive	nonviable
aspiration	failure, any organ	paraplegia
asystole	failure, central nervous system	prematurity
bacteremia	failure, heart	quadriplegia
bedridden	failure, heart, congestive	rapid heart beat
bradycardia	failure, hepatic	seizures
cachexia	failure, liver	senescence
coagulopathy	failure, multi organ	senile debility exhaustion
coma	failure, multi system	senility
convulsions	failure, respiratory	shock
death, cardiac	fever	shock, cardiogenic
death, neonatal	fibrillation, atrial	shock, hypovolemic
debility, senile	fibrillation, ventricular	shock, septic
debility, unspec.	gangrene (incl. of site)	shock, unspec.
decubiti	hemothorax	shutdown of specified organ(s)
dehydration	HIV positive	slow heart beat
depletion, volume	homeostenosis	state, chronic bedridden
diarrhea	hyperglycemia	sudden death
difficulty feeding	hyperkalemia	syncope
dissociation, electromechanical	hyponatremia	tachycardia
distress, adult respiratory	hypotension	vomiting
dysphagia	hypothermia, unspec.	weak heart

MANNER OF DEATH

Item 22, the Manner of Death is the certifier's opinion of whether the death was from natural causes, or if an injury reported on the death certificate was the result of an accident, homicide, or suicide.

A death is usually not "Natural" if an injury is reported anywhere on the certificate (either in Part I or Part II). If "Natural" is checked in Item 22 but the underlying cause of death is an injury, the certifier will be contacted to clarify the manner of death.

If an injury is reported anywhere on the certificate, Items 25a-g must be completed, even if the manner of death is checked "Natural."

"Could Not Be Determined" and "Pending Investigation" in Item 22 are for County Coroners or State Medical Examiner use only.

"Could Not Be Determined" in Item 22 means that after completion of an investigation, it could not be determined whether the injury was an accident, homicide, or suicide. It can also mean that, after the completion of the investigation, it could not be determined whether the death was caused by natural disease processes or an injury.

Do not check "Could Not Be Determined" if death was due to unknown natural causes. In those cases, check "Natural" even if the specific natural causes were undetermined.

"Pending Investigation" means that an investigation will be done to determine whether the death was from natural disease, an accident, homicide, or suicide. "Pending Investigation" is a temporary statement and must be changed to one of the other Manners when the investigation is complete.

If the cause of death is known, it should be reported even if the manner is pending investigation.

When Vital Records receives a "Pending" certificate (either cause or manner), they will send a form letter to the certifier instructing how to submit a Supplemental Form to add the missing information when it becomes available.

PENDING CAUSES OR MANNER OF DEATH

There are two types of “pendings” possible on death certificates: Pending CAUSE of death, and pending MANNER of death.

Pending MANNER of death is reported in Item 22 and is for Coroner or State Medical Examiner use only. See also MANNER OF DEATH

Pending CAUSE of death is reported in Part I when the cause of death cannot be determined within the two-work day time limit. It should be used only when the certifier anticipates that the cause can be determined later, since it is a temporary statement that must be changed later to a specific cause of death, or to “unknown” or a similar term.

Unlike pending MANNER of death (which is for coroners or the State Medical Examiner use only), pending CAUSE of death may be used by any certifier.

If the cause of death is pending, report “Pending” in Part I, line (a). If partial cause of death information is known, report the known information and report only the missing information as “pending.”

UNKNOWN AND UNCERTAIN CAUSE OF DEATH

IF YOU PRONOUNCED DEATH but, do not have the patient's medical history, you should contact the deceased's regular physician or have him or her certify the causes of death and sign the certificate. The person who completes the cause of death section and signs the death certificate should be someone who knows the causes of death, INCLUDING the underlying cause of death. You are not required to complete the death certificate at the time of pronouncement, at the death scene, or at the time of death. State law gives all certifiers two work days to sign the certificate. See also [FREQUENTLY ASKED QUESTIONS](#)

PROBABLE CAUSES OF DEATH: If you know only the probable causes of death, you may report those. See also [INFORMATION FOR WORRIED CERTIFIERS](#)

IF YOU KNOW ONLY CONTRIBUTING FACTORS you may report "unknown natural causes" in Part I, then list the contributing causes in Part II.

IF "UNKNOWN" IS ALL YOU CAN REPORT, it is a good idea to include a statement on the death certificate that explains why the cause of death was unknown. This could include one (or a combination of) the following: "No medical history available", "Had not seen a doctor in 20 years", "Found skeleton in woods", "No anatomical cause of death found", "Found dead" or similar statements.

UNKNOWN AND UNCERTAIN CAUSE OF DEATH

EXAMPLES

- I** (a) Unknown natural causes unknown
II Contributing causes: diabetes, emphysema

The cause of death was natural, but the specific immediate and underlying causes of death were unknown. However, the certifier knew diabetes and emphysema contributed to death.

- I** (a) Unknown causes unknown
II Skeleton found in woods; no sign of disease or injury
22 /x/ Could not be determined.

This shows that an investigation was conducted by the coroner, but because of the state of the body no cause of death could be determined.

- I** (a) Unknown natural causes unknown
(b) No medical history available
II 22 /x/ Natural

This shows that although the death was natural, the cause was unknown because there was no medical history available.

CANCER AND OTHER NEOPLASMS

Whenever a neoplasm is reported, report:

- The primary (original) site
- Whether it was malignant or benign
- Morphological (cell) type
- Metastatic (secondary) sites

PRIMARY SITE: The most important information to report on a cancer death is the primary site of the cancer. If the primary site is unknown, use a statement such as “primary site unknown.”

MALIGNANT OR BENIGN: Terms such as “tumor”, “mass”, “growth” or “neoplasm” do not identify the behavior of the neoplasm. If the behavior of the neoplasm is unknown, use a statement such as “tumor of the brain, unknown behavior”. We don’t assume a neoplasm was malignant just because it was fatal; benign tumors can cause fatal complications. Ways to show the neoplasm was malignant include using terms such as “malignant” and “cancer”, or specifying that there were metastases. Sometimes the morphological (cell) type identifies whether the tumor was malignant or benign.

MORPHOLOGICAL (CELL) TYPES: If the morphological type is known, specify it on the certificate. Examples of morphological types include carcinoma, histiocytoma, adenocarcinoma, mesothelioma, lymphoma, etc. For example, “Melanoma of leg”, “oat cell cancer of lung”, etc.

METASTATIC/SECONDARY SITES: If the cancer spread to other sites, report the other sites also. If metastases or multiple sites are reported, be sure to identify which site was primary and which was secondary. The term “metastatic” preceding a neoplasm of a site does not identify whether that was the primary or secondary. Another way to report primary and secondary sites is to use terms such as “to” and “from.” (“Metastatic carcinoma from the lung to the liver.”)

CLINICAL DIAGNOSIS IS ALLOWED: Cancer may be reported on the death certificate based on a clinical diagnosis, even if there was no biopsy or other test done to “prove” it. Additionally, it is acceptable to report probable primary and secondary sites. If you want to document that there was some uncertainty about the diagnosis, use qualifying terms such as “probable”.

CANCER AND OTHER NEOPLASMS

EXAMPLES

I	(a)	Post operative pneumonia	1 week
	(b)	Left lobectomy	1 week
	(c)	Small cell carcinoma of the lung	years

The site (lung) and cell type (carcinoma) are identified. The morphological type, "carcinoma" shows this was malignant.

I	(a)	Multi organ failure	few weeks
	(b)	Nephroma	several months

The morphological type "nephroma" identifies both site (kidney) and behavior (malignant.)

I	(a)	Pulmonary embolism	few hours
	(b)	Metastatic carcinoma to the liver	unknown
	(c)	Primary carcinoma of the prostate	few years

This identifies both the primary site (prostate) and secondary (liver.)

WRONG:

I	(a)	Pulmonary embolism	few hours
	(b)	Metastatic cancer of the lung	over a year

This doesn't say whether the cancer metastasized to the lung, or from the lung.

ELDERLY

It is often difficult to determine which of multiple conditions caused an elderly patient's death. The important thing to keep in mind is that the cause of death is the certifier's OPINION about which of the elderly person's conditions most likely caused or contributed to death. You do not have to be positive of the cause of death, and you may use qualifying terms such as "probable" to indicate a degree of uncertainty. You may report the most likely sequence of events leading to death, including which of the deceased's conditions was the most likely underlying cause of death.

The most common error in reporting causes of death for the elderly in Arkansas is omitting the underlying cause of death. Many death certificates for our elderly report only an immediate cause of death, such as cardiac arrest or heart failure, or a symptom such as debility, failure to thrive, or multiple organ failure. If these conditions are reported, their cause should also be reported.

See also [TERMS THAT DON'T IDENTIFY UNDERLYING CAUSE OF DEATH](#)

Another common error in reporting causes of death for elderly persons is reporting an injury as "natural." Age and infirmity do not make an injury "natural". For example, if the patient fell and broke her hip, it is still an "injury" even if the patient fell because of a disease condition that caused her to lose her balance or faint. It is an injury, even if her age or illness made it more difficult to survive a broken hip.

If an injury is reported on the death certificate, notify the coroner and complete Items 25a-g regardless of the age of the deceased or other conditions present at death. This instruction applies to all injuries, even when you have checked Item 22, Manner of Death, as "natural."

DO NOT REPORT "old age", "age 99", "senile" or similar terms as causes of death. The age of the deceased is already reported in Item 5.

INFANTS

When an infant dies after being live born, both a birth and a death certificate must be filed, regardless of how briefly the infant lived.

MATERNAL CONDITIONS CAUSING INFANT DEATH: If the infant died as a result of maternal conditions that were present before delivery, specify on the death certificate which conditions were maternal.

BIRTH WEIGHT/GESTATIONAL LENGTH: Terms such as “prematurity”, “low birth weight” and other references to weight and gestational length do not adequately identify the underlying cause of death. If a more specific disease or condition is known, it should be reported. For example, was there a specific maternal or fetal disease or condition that caused the birth to occur prematurely, or caused the low birth weight? Or was there a specific complication or disease caused by the prematurity or low birth weight?

FETAL DEATH (STILLBIRTH): Fetal deaths and stillbirths are not reported on death certificates. Instead, a Certificate of Fetal Death (Stillbirth) is submitted. See also [IF FEMALE](#)

Following is the definition of a fetal death or stillbirth: “Death prior to the complete expulsion or extraction from its mother of a product of human conception, with 12 weeks or more gestation calculated from the last normal menstrual period began to the date of delivery; the death is indicated by the fact that after such expulsion or extraction the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles. Heartbeats shall be distinguished from transient cardiac contractions; respirations shall be distinguished from fleeting respiratory efforts or gasps.”

Cause of death reporting instructions for stillbirths/fetal death certificates are similar to reporting cause of death on infant death certificates.

DO NOT REPORT “STILLBIRTH”, “FETAL DEATH”, “INTRAUTERINE DEATH” OR SIMILAR TERMS AS THE CAUSE OF FETAL DEATH/STILLBIRTH. SUCH TERMS PROVIDE NO INFORMATION ON THE CAUSE OF DEATH.

MENTAL DISORDERS

Mental disorders may be reported on the death certificate if they caused or contributed to death.

When reporting a mental disorder as a cause of death, identify the complication or mechanism by which the mental disorder caused death.

MENTAL DISORDERS

EXAMPLES

- | | | | |
|----------|-----|-------------------------|------------------|
| I | (a) | Malnutrition | months |
| | (b) | Refusal to eat or drink | several months |
| | (c) | Alzheimer's dementia | over three years |

This shows that the Alzheimer's dementia was the underlying cause of death, causing refusal to eat or drink, which caused malnutrition.

If the mental disorder was due to a disease, report the disease:

- | | | | |
|----------|-----|------------------------|---------------|
| I | (a) | Failure to thrive | six months |
| | (b) | Multi-infarct dementia | over a year |
| | (c) | Cerebral infarctions | several years |

This shows the dementia was organic, caused by cerebral infarctions.

- | | | | |
|----------|-----|--------------------|-------------|
| I | (a) | Pulmonary embolism | few minutes |
| | (b) | Hip fracture | 3 weeks |

- II** Contributing causes: Depression
22/x/accident. How injury occurred: fell down stairs

This shows that the mental disorder did not cause the pulmonary embolism or hip fracture, but the depression contributed to death.

WHAT IS AN INJURY?

For purposes of completing Items 25a-g and coroner notification, “Injury” includes:

- Trauma from external forces
- Other adverse physical effects of externally-caused events
- Poisoning, toxicity or overdose of any substance, including medication
- Aspiration, suffocation, strangulation, mechanical obstruction of breathing
Including from food, vomitus, secretions (unless reported due to disease)
- Exposure to natural and environmental forces such as weather
- Anaphylactic shock and other allergic reactions
- Fractures and hematomas from falls or other external forces
- Errors and accidents during surgery and other medical care
- Starvation, neglect, privation
- Overexertion
- Contact with venomous or nonvenomous animals, insects, plants

WHEN TO COMPLETE INJURY ITEMS 25a-g

If you report an injury on the death certificate, you are saying it was a cause of death. ANY TIME AN INJURY IS MENTIONED ON THE DEATH CERTIFICATE, YOU MUST COMPLETE ITEMS 25a-g AND NOTIFY THE CORONER, EVEN IF:

- You’ve checked Item 22, Manner of Death, “Natural”
- The injury was reported in Part II
- Death was from a “natural” complication of the injury
- Age, illness, or debility made the person less able to survive injury
- Injury due to disease that caused fainting, imbalance, mental impairment, etc.
- It was an old injury, or late effects or sequelae of injury
- Death was from complications or treatment of the injury
- Death occurred at hospital or while under medical care
- Injury was the result of a “nonviolent” external event

WHEN TO COMPLETE INJURY ITEMS 27-32

EXAMPLES

- I** (a) Sepsis 1 week
(b) Pneumonia 10 days
(c) Open reduction hip fracture 2 weeks
- II** 22 /x/ accident. He slipped on ice and fell.

The underlying cause of the sepsis and pneumonia is the fracture, so the manner of death is not “natural.” Coroner was notified, and Items 25a-f completed.

- I** (a) Pulmonary embolism hours
(b) Comatose 2 years
(c) Traumatic brain injury over 2 years
- II** 22 /x/ homicide. Shotgun wound to head.

Injury was two years before death, but this is not “natural” because death was from complications of the injury. Coroner was notified and 25a-f completed.

- I** (a) Hypothermia hours
(b) Exposure to cold weather hours
(c)
- II** Arteriosclerotic heart disease and Alzheimer’s
22 /x/ accident. He wandered away from his house and was found in woods.

Environmental hypothermia is an injury, even though Alzheimer’s may have led to the wandering, and heart disease was a contributing factor. Coroner was notified and 25a-f completed.

ITEMS 25a-g

- If no injury is reported, leave Injury Items 25a-g blank.
- Do not use Injury Items 25a-g for diseases or comments unrelated to injuries.
- If Items 25a-b, Date of Injury and Time of Injury, are uncertain, they may be estimated or approximated. You may include a qualifying term such as “approx.” If date or time cannot be estimated or approximated, specify “Unknown.”
- Item 25f should have a brief explanation of the circumstances of the event causing the injury. See also [CAUSES OF INJURY](#)
- Item 25c should be a brief, general description of where the injury occurred.
- Item 25e should be completed even if the address is reported in Item 9b.
- Item 19 should be “yes” if the County Coroner or State Medical Examiner was notified of the death. This will document that you have met the legal requirement to notify the coroner of certain deaths.

CAUSES OF INJURY

MOTOR VEHICLE AND TRANSPORT INJURIES

When a motor vehicle or other transport-related injury is reported, the death certificate should identify:

ROLE OF THE DECEASED: Driver, operator, pilot, passenger, unspecified occupant, pedestrian, person boarding or alighting from the vehicle, person outside of the vehicle, etc. In 2008, Item 25g was added to identify the role of the deceased in motor vehicle and transport accidents.

TYPE OF VEHICLE(S) INVOLVED: Auto, pickup truck, 18 wheeler, bus, van, motorcycle, airplane, train, bicycle, etc.

OTHER OBJECT INVOLVED: Telephone pole, tree, wall, etc.

TYPE OF ACCIDENT: Collision, non-collision, rollover, thrown from vehicle, etc.

TRAFFIC OR NONTRAFFIC:

Traffic = on the public highway or public road.

Non-traffic = off the public highway or public road (on driveway, park, private road, etc.)

If you do not have the above information, contact the police or coroner before completing the death certificate.

DRUGS, POISONING, TOXICITY

If poisoning, toxicity or overdose is reported, coroner should be notified and Items 25a-f completed.

Type of drug or other substance causing overdose or toxicity should be specified. If this information is pending lab tests, say so on the certificate. Later, when the type of substance is known, submit a Supplemental form (from Vital Records) to have the missing information added.

If multiple drugs or substances caused the overdose or toxicity, instead of reporting “multiple drug overdose” specify each drug by name or generic type.

ASPIRATION, ASPHYXIATION, CHOKING, SUFFOCATION

If aspiration, asphyxiation, choking, suffocation, or any other mechanical threats to breathing are reported, they are “injuries.” This includes:

- Aspiration or choking on food or drink
- Obstruction of breathing from any foreign substance or object in respiratory tract
- Other mechanical obstruction of breathing

Identify what substance or object caused the threat to breathing, such as food, beverage, vomitus, small toy, plastic bag, etc.

If aspiration of vomitus, mucus, blood, or other bodily fluids occurred as the result of a disease that impaired the person’s ability to swallow, report the disease on the death certificate.

FALLS, FRACTURES, HEMATOMAS

Report how the injury occurred. Specify if another person or object was involved (fell getting out of bed, tripped over rug, fell out of tree, dropped by sibling, etc.)

If fracture or hematoma was unrelated to any external event such as a fall, but was a nontraumatic natural disease process, this is not an “injury.” Examples include a spontaneous fracture of a diseased bone or a nontraumatic subdural hematoma caused by a spontaneous cerebral hemorrhage. In these cases, specify what disease caused the nontraumatic event.

FIRES AND BURNS

Report the circumstances that caused the fire or burns (smoking in bed, fell against hot stove, propane explosion, clothes caught fire while burning leaves, etc.) Include the location of fire (house, tool shed, restaurant, etc.)

DROWNING AND SUBMERSION

Identify objects, locations, and activities involved in drowning or submersion. For example: thrown from motor boat after collision with other boat, fell into swimming pool, drowned while in bathtub, jumped into lake to rescue child, etc. If water transport was involved, identify type of vehicle (motor boat, canoe, jet ski, etc.)

GUNS

If a gun caused the injury, specify whether handgun, rifle, shotgun, etc.

OTHER CAUSES OF INJURY

Other events that are “injuries” requiring completion of Items 25a-f and notification of the coroner include:

Anaphylactic shock or other fatal allergic reactions result from exposure to plants, food, drugs, therapeutic substances, chemicals, etc. If these occur, identify the substance and the source: bee sting, peanut allergy, anaphylactic reaction to barium contrast medium, etc.

Exposure to hot weather or environment causing hyperthermia, heat stroke, heat exhaustion, heat prostration, etc. Exposure to cold weather or environment causing hypothermia, freezing, etc. If these occur, identify the environment and circumstances, such as “froze to death in woods after wandering away from nursing home”, or “Heat stroke in house with no air conditioning.”

DID TOBACCO USE CONTRIBUTE TO DEATH?

The CDC's National Center for Health Statistics recommended all states add this question to their death certificates. Arkansas added this question in 2008.

The answer to this question should be the clinical opinion of the medical certifier who signed Item 26a. Information about tobacco use may come from medical records, the Informant, or the patient's family, but it is up to the medical certifier to decide whether or not tobacco use contributed to death.

This question should be answered for decedents of all ages; do not leave blank. Exception: If the cause or manner of death is "Pending", the tobacco use information may be added later when the investigation is complete. Add the missing tobacco use information to the same form used to add the missing cause or manner of death.

Check only one answer to this question.

"Tobacco use" means any use of tobacco or exposure to tobacco use, including:

Smoked or smokeless tobacco.

Cigarettes, cigars, pipes, spit tobacco, chewing tobacco, dip tobacco, and tobacco snuff.

"Second hand" tobacco smoke.

Nonsmokers exposed to other person's tobacco use.

Injuries in fires started by smoking tobacco.

"Tobacco use" excludes marijuana and other non-tobacco substances.

Answer "Yes" if, in the medical certifier's clinical opinion, use of or exposure to tobacco contributed to death. This includes former tobacco users, if that use contributed to death.

Answer "No" if there was no use or exposure to tobacco, or if it is the medical certifier's clinical opinion that use of or exposure to tobacco did NOT contribute to death. "No" includes tobacco users whose use did NOT contribute to death.

Answer "Probably" if, in the medical certifier's clinical opinion, use of or exposure to tobacco PROBABLY DID contribute to death.

Answer "Unknown" if the medical certifier is unable to obtain information about the deceased's use of or exposure to tobacco. "Unknown" also includes persons who used or were exposed to tobacco, but the medical certifier cannot determine if that contributed to death.

If the medical certifier leaves this item blank, the funeral home or county registrar should not assume the answer is "unknown." Instead, the medical certifier should be contacted for the missing information.

IF FEMALE

The CDC's National Center for Health Statistics recommended all states add this question to their death certificates. Arkansas added this question in 2008.

If deceased was male, leave this item blank.

If female, do not leave blank. Complete this item for ALL FEMALES OF ALL AGES (not just those in their childbearing years.) Exception: If the cause or manner of death is "Pending", Item 24 may be added later when the investigation is complete. Add the missing information to the same form used to add the missing cause or manner of death.

Answer "Unknown" only if the medical certifier was unable to determine if the deceased was pregnant at the time of death or had been pregnant within the past year. If the medical certifier leaves this item blank, the funeral home or county registrar should not assume the answer is "unknown." Instead, the medical certifier should be contacted for the missing information.

[INFORMATION FOR WORRIED CERTIFIERS](#)

If the medical certifier does not know the female's pregnancy history, but she was obviously too young or too old to have been pregnant in the past year, instead of "Unknown" check "Not pregnant within the past year". Reporting cause of death is a complex process. It is understandable that some certifiers may worry about what they report. Here is some information you may find reassuring.

CAUSE OF DEATH IS AN OPINION: If you are a coroner and sign Item 26a, your signature certifies that "On the basis of examination and/or investigation, in my opinion, death occurred at the time, date and place and due to the cause(s) and manner as stated." If you are a physician or registered nurse at a hospice and you sign Item 26a, your signature certifies that "To the best of my knowledge, death occurred at the time, date, and place, and due to the causes(s) and manner as stated." Both of these signature statements accommodate the difficulties often faced in determining what caused death.

CLINICAL DIAGNOSES ARE ACCEPTABLE: If your opinion or knowledge about what caused death is based on a clinical diagnosis, you may still report the condition on the death certificate as a cause of death. For example, if the patient more likely than not had pancreatic cancer, and you think that was the most likely underlying cause of death, you may report it on the death certificate even if no biopsy was done and there was no "proof" of the site.

QUALIFYING TERMS: Although cause of death information should be as accurate and complete as possible, sometimes it isn't possible to be completely sure what caused or contributed to death. In these cases, you may use qualifying terms with the cause of death such as "probable", "consistent with", "most likely", or "apparent."

SIGNING A BLANK DEATH CERTIFICATE? If you are worried about signing a blank certificate so someone else can fill in the cause or manner of death for you later, **YOU ARE RIGHT TO WORRY!** This is like signing a blank check. We don't recommend it. If someone other than the certifier fills in the cause or manner of death, the certifier should review the information before signing.

See also [UNKNOWN AND UNCERTAIN CAUSES OF DEATH](#)

[CAUSE OF DEATH QUERY FORMS](#)

Query forms are sent to cause of death certifiers when important information is missing from the certificate. These forms are also sent when the cause of death is unclear, illegible, or appears to be an error.

A query form signed by the certifier may be used by Health Statistics to add missing information to medical section of the original certificate.

In some cases, the information requested on the query form is needed for keying, coding, research, or statistical purposes only. In these cases, the additional information provided by the certifier is not added to the original death certificate.

CONTACTS AND ADDITIONAL REPORTING REFERENCES

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Online Resources?

National Center for Health Statistics

https://www.cdc.gov/nchs/nvss/writing_cod_statements.htm

- [Possible Solutions to Common Problems in Death Certification](#)
- [Instructions for Completing the Cause-of-Death Section of the Death Certificate\[PDF - 76 KB\]\(https://www.cdc.gov/nchs/data/dvs/blue_form.pdf\)](#)
- [Instructions for Completing the Cause-of-Death Section of the Death Certificate for Injury and Poisoning\[PDF - 82 KB\]\(https://www.cdc.gov/nchs/data/dvs/red_form.pdf\)](#)
- [Possible Solutions to Common Problems in Death Certification\(https://www.cdc.gov/nchs/nvss/death_certification_problems.htm\)](#)
- [State Definitions and Reporting Requirements for Live Births, Fetal Deaths, and Induced Terminations of Pregnancy\(https://www.cdc.gov/nchs/products/other/miscpub/statereq.htm\)](#)
- [The Autopsy, Medicine, and Mortality Statistics\[PDF - 1 MB\]\(https://www.cdc.gov/nchs/data/series/sr_03/sr03_032.pdf\)](#)

Handbooks

- [Physicians' Handbook on Medical Certification of Death \(2003 Revision\) \(PHS\) 2003-1108. 65 pp.\[PDF - 1.2 MB\]\(https://www.cdc.gov/nchs/data/misc/hb_cod.pdf\)](#)
- [Medical Examiners' and Coroners' Handbook on Death Registration and Fetal Death Reporting \(2003 Revision\) \(PHS\) 2003-1110. 138 pp.\[PDF - 2.9 MB\]\(https://www.cdc.gov/nchs/data/misc/hb_me.pdf\)](#)
- [Funeral Directors' Handbook on Death Registration and Fetal Death Reporting \(2003 Revision\) \(PHS\) 2005-1109. 67 pp.\[PDF - 2.9 MB\]\(https://www.cdc.gov/nchs/data/misc/hb_fun.pdf\)](#)
- [Hospitals' and Physicians' Handbook on Birth Registration and Fetal Death Reporting \(PHS\) 87-1107. 61 pp.\[PDF - 7.7 MB\]\(https://www.cdc.gov/nchs/data/misc/hb_birth.pdf\)](#)
- [Handbook on the Reporting of Induced Termination of Pregnancy \(Reprinted/revised 1997\) \(PHS\) 98-1117. 23 pp.\[PDF - 2.6 MB\]\(https://www.cdc.gov/nchs/data/misc/hb_itop.pdf\)](#)
- [Guidelines for Reporting Occupation and Industry on Death Certificates. \(https://www.cdc.gov/niosh/docs/2012-149\)](#)

Special Guidelines

- [Completion of Death Certificates in the aftermath of a Hurricane\[PDF - 112 KB\]\(https://www.cdc.gov/nchs/data/dvs/hurricane_certification.pdf\)](#)