

HOW TO CERTIFY DEATHS

A quick tutorial

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So, why do death certificates matter?

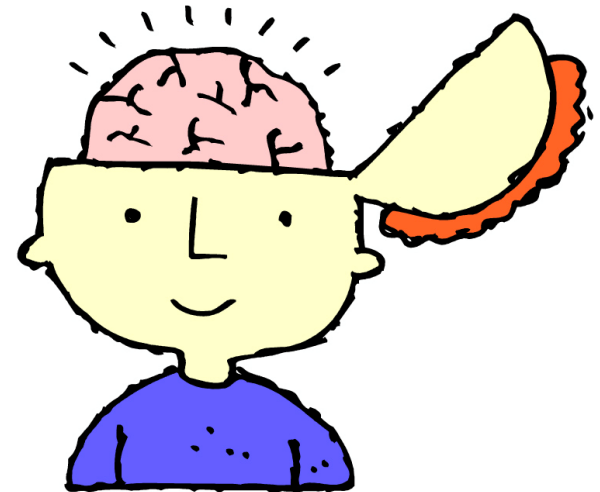
- They provide legal proof that death has occurred.
- They provide information for the family about why and how their loved one died.
- They supply data on causes of mortality on both the state and national level.
 - This data helps develop priorities for public health funding and prevention efforts.
- Death certificates are important to families and for public health!
- *That's why we want them done correctly.*



A few important definitions to start...

- If you understand the following three concepts, death certificates will be easy!
- A good understanding of these means you don't need to memorize the correct death certificate for every possible scenario.
 - You'll be able to think your way through it!

- [Cause of Death](#) ← START HERE
- Mechanism of Death
- Manner of Death



Cause of Death

- The disease or injury responsible for starting the lethal sequence of events that ultimately leads to death.
- A cause of death is etiologically specific.
 - i.e. not “due to” something else.
- Having a good cause of death is important so that we can keep track of major causes of mortality.
 - As an example, we are interested in knowing how many people are dying from Type 2 Diabetes, not from acute kidney injury.
- Two examples of causes of death:
 - metastatic breast adenocarcinoma
 - Alzheimer’s Disease
- NEXT: [Mechanism of death](#)

Mechanism of Death

- The altered biochemistry or physiology by which the cause exerts its lethal effects.
- i.e. How does disease “X” kill a person?
- Not etiologically specific and can be due to a number of disease processes.
- Examples of mechanisms of death:
 - Respiratory arrest, acute kidney injury.
 - You don’t need to include these on the death certificate, unless it helps you “tell the story”.
- [Click here](#) to work through some examples!



Cause or Mechanism?

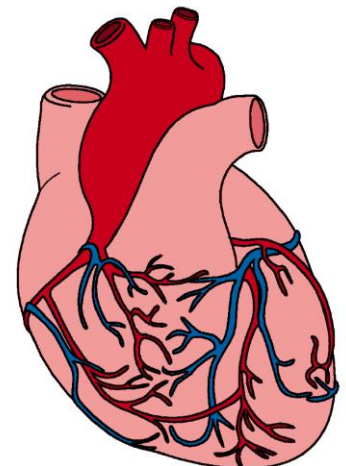
Give these examples a try...

- Cardiac Arrest
 - [Cause](#) or [Mechanism](#)?
- Pulmonary Embolism
 - [Cause](#) or [Mechanism](#)?
- Adenocarcinoma of prostate, metastatic
 - [Cause](#) or [Mechanism](#)?
- Atherosclerotic Cardiovascular Disease
 - [Cause](#) or [Mechanism](#)?

Incorrect!

- Everyone who is dead is in cardiac arrest; thus, it isn't specific enough.
- **Hint:** the same applies to the “arrest” or “failure” of any organ system, i.e. respiratory failure, liver failure....
- All of these occur during the dying process and so they cannot stand alone on a death certificate.

• [TRY AGAIN](#)

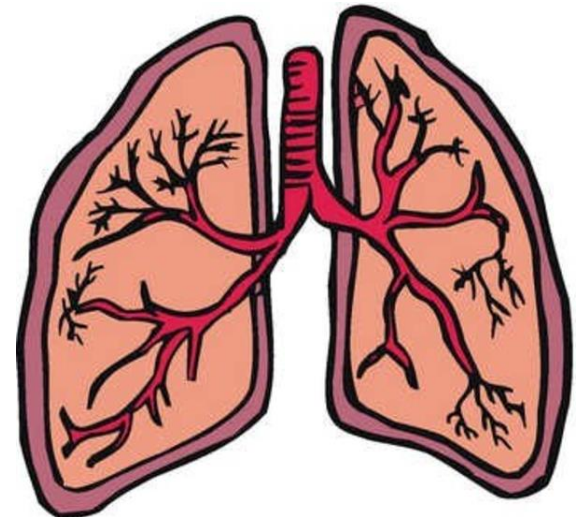


Correct!

- [Next question](#)

Incorrect!

- A pulmonary embolism doesn't occur in a vacuum. There are usually other risk factors present that would be the true underlying cause of death.
- Malignancy? Pregnancy? Recent orthopedic surgery?
- [TRY AGAIN](#)



Incorrect!

- [TRY AGAIN](#)

Correct!

- Atherosclerosis is a specific disease process.
- If you wanted to, you could even be more specific if there are specific risk factors (obesity, hyperlipidemia) but that isn't needed.



These risk factors could also go in Part II, but more on that later!

- [UP NEXT: MANNER OF DEATH](#)
- [RETURN TO EXAMPLES](#)

Manner of Death

- This describes the *circumstances* surrounding the death.
- You have five different choices in Vermont:
 - Natural
 - Suicide
 - Homicide
 - Accident
 - Undetermined
- In reality, there's only one choice truly available to you.
- If it's anything but a natural death, the Medical Examiner needs to be contacted and they will issue the death certificate.

Click anywhere to continue

Manner of Death

- To re-emphasize: *If a death is not 100% due to natural disease, by law, it must be reported to the medical examiners office.*
- It doesn't matter how long ago the injury was; if it contributed, it must be reported.
- Lets examine the [“Christopher Reeve concept”](#)



- This is Christopher Reeve
 - The actor who played Superman in the 1980s.
- He was injured in 1995 after being thrown from a horse.
- Suffered cervical spine fractures with resulting quadriplegia and ventilator dependence.
 - Became a prominent activist for stem cell research.
- In October 2004, he suffered complications from an infected bedsore and died.

Click anywhere to continue

What was the cause of death?

- Soft tissue cellulitis.
- Cardiac arrest due to sepsis due to skin infection.
- Complications of quadriplegia due to cervical spine fractures due to blunt force trauma.
- Sepsis due to infected pressure ulcer.

Incorrect!

- What was the infection due to? Most healthy people don't get pressure ulcers, or die from cellulitis.
- [CLICK HERE TO TRY AGAIN](#)

Correct!

- Were it not for the horseback riding accident, there would be no quadriplegia and thus no infected pressure ulcers.
- Next question – What's the manner of death?
 - [Natural](#)
 - [Accident](#)

Incorrect!

- The underlying cause of death was an injury sustained during a horseback riding accident (*hint hint*)....
- It doesn't matter how long ago the injury occurred!
- [TRY AGAIN](#)

Correct!

- Even though the original accident occurred years ago, it is the underlying cause of death and so the manner is *accident*.
- This also means that you would need to report this death to the Medical Examiner.
- OK, so how about this scenario:
 - A man is shot by another person, has a perforated bowel, survives for a month, but then dies from sepsis, what is the manner of death?
- Homicide!
- [CONTINUE](#)

At this point it's good to clarify an important difference....

What Is A Hospital Autopsy?

- Done by hospital pathologist (UVMMC employee).
- Done as a service to families of patients dying at UVMMC or affiliate hospitals.
- Only performed on natural deaths.
- Consent is needed from the legal next of kin in order to perform an autopsy.

What Is A Forensic Autopsy?

- Done by a forensic pathologist at the Office of the Chief Medical Examiner (OCME).
- Done to investigate deaths that could go to court (criminal or civil) or are in the interest of public health.
- Performed on any manner of deaths.
- No consent is needed – they have legal jurisdiction to perform an autopsy.

At this point it's good to clarify an important difference....

What Is A Forensic Autopsy?

- Done by a forensic pathologist at the Office of the Chief Medical Examiner (OCME).
- Done to investigate deaths that could go to court (criminal or civil) or are in the interest of public health.
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No consent is needed – they have legal jurisdiction to perform an autopsy.

Because of this, by law, certain deaths need to be reported to the medical examiners office.

[WHICH DEATHS? CLICK HERE TO FIND OUT](#)

Deaths involving any of the following need to be reported to the Medical Examiner

- Any violence.
- Suddenly when in apparent good health.
- All accidents (falls, motor vehicles, industrial).
- All suicides.
- All suspected drug overdose/chemical/poisoning.
- All persons in custody.
- Deaths during or due to complications of therapeutic procedure.
- Deaths related to employment.
- All possible threats to public health.
- Any suspicious or unusual deaths.
- Anyone who dies within 6 months of sustaining a fracture (includes hip fractures in the elderly).

[CONTINUE](#)

To help you out, here are some “Red Flags” to look out for

Red Flags

If any of the following terms are included in the events leading to death, call the Medical Examiner.

Accident	Exposure	Misadventure
Adverse Reaction	Fall	Neglect
Asphyxia	Fire	Overdose
Aspiration	Fracture	Paralysis
At work	Gunshot	Poisoning
Bite	Homicide	Sting
Burn	Ingestion	Suicide
Choke	Injury	Toxicity
Contusion	Intoxication	Wound
Cut	Laceration	

Click anywhere to continue

Last but not least....Part II

- In Part I of a death certificate, we list the sequence caused by a single underlying disease that leads to death.
- Often, there are other chronic diseases that contribute but don't necessarily belong in Part I.
 - This is what Part II is for!
- For example....

28. CAUSE PART I.
The following information should Replace or Add to the cause part I as it appears on certificate.

a. _____
Due to (or as a consequence of):

b. _____
Due to (or as a consequence of):

c. _____
Due to (or as a consequence of):

d. _____

29. CAUSE PART II. Enter other significant conditions contributing to death but not resulting in the underlying cause given in PART I.
The following information should Replace or Add to the cause part I as it appears on certificate.



How to Use Part II

- An elderly woman develops a urinary tract infection and subsequent sepsis, and then dies.
- Part I: Sepsis due to Urinary Tract Infection
- *But wait!* Most otherwise healthy people don't die from a urinary tract infection.
 - SOMETHING else must be present that makes this person particularly susceptible.
 - This is when we can use Part II to tell the complete story!
- Part II: Alzheimer's Dementia, atherosclerotic and hypertensive cardiovascular disease
 - This death certificate now makes much more sense.



OK, Now you know what you're doing!
Let's try some examples with common mistakes.
Think before you click. Is this acceptable?

27. Manner of Death

Natural Accident Suicide Homicide Pending Investigation Could Not Be Determined

28. CAUSE PART I.

Myocardial Infarction

a.

Due to (or as a consequence of):

Atherosclerotic and hypertensive cardiovascular disease

b.

Due to (or as a consequence of):

c.

Due to (or as a consequence of):

d.

29. CAUSE PART II. Enter other significant conditions contributing to death but not resulting in the underlying cause given in PART I

Parkinson's Disease, Hip Fracture

OK, Now you know what you're doing!
Let's try some examples with common mistakes.
Think before you click. Is this OK?

27. Manner of Death

Natural Accident Suicide Homicide Pending Investigation Could Not Be Determined

28. CAUSE PART I.

a. Myocardial Infarction

Due to (or as a consequence of):

b. Atherosclerotic and hypertensive cardiovascular disease

Due to (or as a consequence of):

c.

Due to (or as a consequence of):

d.

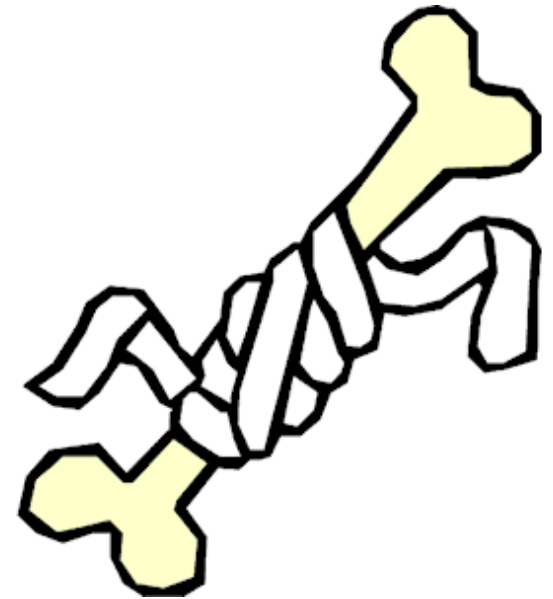
29. CAUSE PART II. *Enter other significant conditions contributing to death but not resulting in the underlying cause given in PART I*

Parkinson's Disease, Hip Fracture

What's this about!?!?

Falls and Fractures in the Elderly

- Falls are an important, and preventable, cause of morbidity and mortality in the elderly.
- The elderly are also at risk for abuse and/or neglect.
- This is a common scenario:
 - Elderly woman breaks femur; admitted to hospital; pneumonia; passes away
- *This isn't natural!*
- Remember the Christopher Reeve Concept – these need to be reported to the Medical Examiner.



How about this one?

27. Manner of Death Natural Accident Suicide Homicide Pending Investigation Could Not Be Determined

28. CAUSE **PART I.**
The following information should Replace or Add to the cause part I as it appears on certificate.

a.
Due to (or as a consequence of):

b.
Due to (or as a consequence of):

**APPROXIMATE INTERVAL:
ONSET TO DEATH**

Looks good or needs some work?

Incorrect!

- What's the cause of death? Both of the items listed are only mechanisms of death....
- TRY AGAIN

Correct!

- There isn't a cause of death listed.
- What's the chronic kidney disease due to?
 - Diabetes?
 - IgA Nephropathy?

- *That's* what we want to know!

What's wrong with this one? Think before you click....

27. Manner of Death

Natural Accident Suicide Homicide Pending Investigation Could Not Be Determined

28. CAUSE **PART I.**

The following information should **Replace** or **Add to the cause part I as it appears on certificate.**

**APPROXIMATE INTERVAL:
ONSET TO DEATH**

a.

Due to (or as a consequence of):

b.

The majority of people who use the death certificate (family members, funeral directors) don't work in healthcare, so they won't know what these abbreviations mean. Write out the full name so others can understand what you mean!

What seems wrong here? Think before you click!

27. Manner of Death Natural Accident Suicide Homicide Pending Investigation Could Not Be Determined


28. CAUSE PARTIAL

a. Aspiratio food

Due to (or as a consequence of):

APPROXIMATE INTERVAL:
ONSET TO DEATH

Minutes



Uh oh! Wrong manner of death! If this person truly had a discrete incident of choking on a food bolus, the medical examiner should have been contacted...[CLICK FOR DISCUSSION](#)

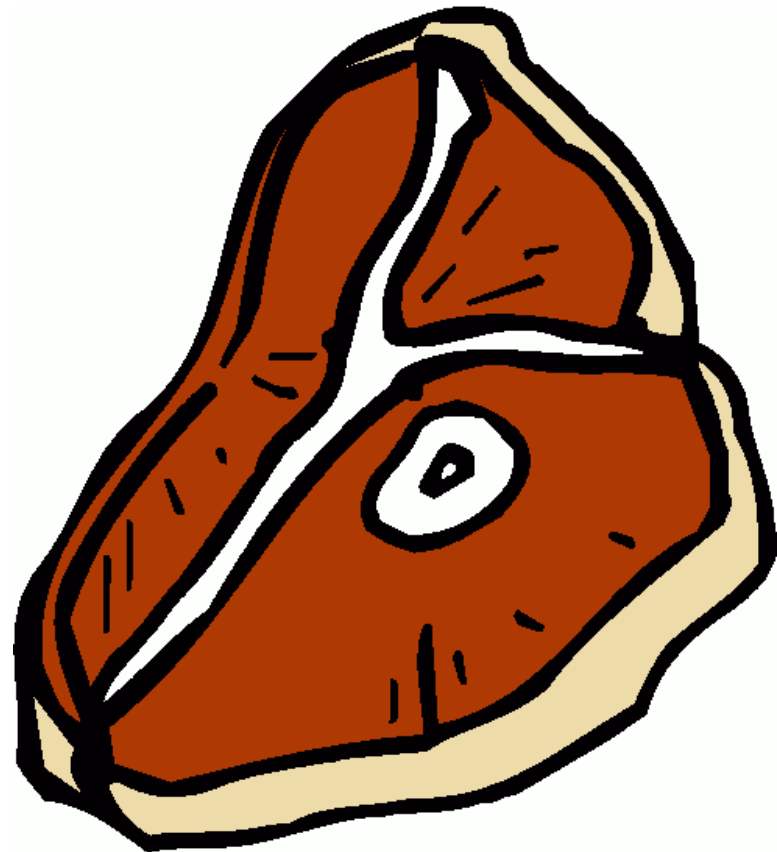
This is a common source of confusion!

- There is a difference between choking and aspirating.
- Choking = something lodged in the airway that blocks airflow.
 - Hot dog, vomitus, other foreign body.
 - This is an accident!
- Aspirating = something gets in the airway or lungs, but doesn't obstruct airflow.
 - As you know, this is a set-up for pneumonia!
 - Often, this is a mechanism of death in individuals with CNS disease.



Choking vs. Aspiration

- OK, let's test this concept!
- Previously healthy man is eating a steak at a restaurant, then turns blue and dies. Autopsy shows a big chunk of steak obstructing his trachea.
- [Choking](#) or [aspiration](#)?



Incorrect!!

- Remember the definition of aspiration...*incomplete onstruction of the airway*.....
- TRY AGAIN

Correct!

- A complete obstruction of the airway = choking.
- You could say the same if he was intoxicated and choked on vomitus.
- Now, manner of death – *accident* or *natural*?
- Accident!

- If this was a person with dysphagia following a stroke, and they had a *chronic aspiration pneumonia*, the manner of death would be.....
- Natural!

In Summary...

- We don't expect you to be an expert.
 - Truthfulness, completeness, and reasonable accuracy are the standards we are looking for.
- But we do expect that you report deaths to the medical examiner.
- If you have questions, call and ask!
- Scenarios can get complicated, and we're happy to help you figure out if A) it's a reportable death or B) how to word the death certificate.