

Pearls and Pitfalls of Death Certificates

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Utah Office of the Medical Examiner

I have nothing to disclose

OUTLINE

- Definitions to know
- What is the death certificate
- Who can sign the death certificate
- What is the role of the Medical Examiner in Utah
- What is the role of treating healthcare providers
- Examples / Questions

Definitions to know

Cause, Mechanism, and Manner of Death


Cause vs Mechanism of Death

- Cause of Death: the reason someone died
 - Natural causes include things like coronary atherosclerotic disease, infection, malignancy
 - Non-natural causes include things like gunshot wound, ground level fall, blunt force injury(ies), sharp force injury(ies), hanging
- Mechanism of Death: the physiologic derangement produced by the Cause of Death
 - Include things like exsanguination, cardiac arrest, respiratory arrest, septicemia, anoxic brain injury

Cause vs Mechanism of Death

- Cause of Death is required on the Death Certificate, Mechanism of Death is not

CAUSE OF DEATH (See instructions and examples)



32. Part I. Enter the chain of envnts—diseases, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE Enter only one cause on a line. Add additional lines if necessary.

IMMEDIATE CAUSE (final disease or condition -----> resulting in death)
Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST

- | | |
|----------|--|
| 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. _____ | |

Manner of Death

- 6 options provided on the DC
 - **Natural** – failure of body functions resulting from age and/or disease
 - **Accident** – death from unintentional injury or poisoning
 - **Suicide** – death due to a deliberate, self-inflicted act
 - **Homicide** – death caused by another person
 - **Undetermined** – either cause of death or motive/circumstances surrounding death are not known
 - **Pending Investigation**

37. MANNER OF DEATH

- | | |
|--------------|-----------------------------|
| • • Natural | • • Homicide |
| • • Accident | • • Pending investigation |
| • • Suicide | • • Could not be determined |

What is the death certificate

Death Certificates (DCs)

- Permanent legal record of an individual's death
- Legally required to obtain a burial permit
- Also used to:
 - Apply for insurance benefits
 - Settle pension claims
 - Transfer title of real and personal property

Death Certificates (DCs)

- Documentation of:
 - Demographic data
 - Cause of death
 - Manner of death
 - Circumstances of injury and death
 - Certifier's name and title

STATE OF UTAH - DEPARTMENT OF HEALTH
CERTIFICATE OF DEATH

1. NAME OF DECEASED: **John Webb**
2. SEX: **Male**
3. RACE: **White**
4. DATE OF BIRTH: **2-8-1903**
5. AGE: **61**
6. CITY, TOWN, OR LOCATION: **Salt Lake City**
7. STREET ADDRESS: **2030 South 6th East**
8. RESIDENCE INSIDE CITY LIMITS: **YES**
9. US BORN: **YES**
10. US RESIDENCE INSIDE CITY LIMITS: **YES**
11. BIRTHPLACE (State or foreign country): **Monroe, Utah**
12. CITIZEN OF WHAT COUNTRY: **USA**
13. FATHER'S NAME: **John Webb**
14. MOTHER'S MAIDEN NAME: **Emma Bowman**
15. SOCIAL SECURITY NO.: **Marion Green**
16. NAME OF SPOUSE: **Mrs. Marie G. Webb**
17. ADDRESS: **Salt Lake City, Utah**
18. CAUSE OF DEATH: **Acute anterior myocardial infarction**
19. INTERVAL BETWEEN ONSET AND DEATH: **10 hours**
20. MANNER OF DEATH: **Acute coronary occlusion**
21. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RELATED TO THE TERMINAL DISEASE CONDITION GIVEN IN PART I: **Atherosclerotic heart disease**
22. DESCRIBE HOW INJURY OCCURRED: **Seizure**
23. TIME OF INJURY: **2-8-65**
24. PLACE OF INJURY: **Home**
25. CITY, TOWN, OR LOCATION: **Salt Lake City**
26. COUNTY: **Utah**
27. STATE: **Utah**
28. DATE: **2-11-65**
29. NAME OF CEMETERY OR CREMATORY: **Memorial Gardens**
30. LOCATION (City, town, or county): **Salt Lake Co., Utah**
31. DATE RECD. BY LOCAL REG.: **Feb. 11, 1965**
32. REGISTRAR'S SIGNATURE: **L. J. [Signature]**
33. FURNERAL DIRECTOR'S SIGNATURE AND ADDRESS: **Goff Mortuary, 1000 Midvale, Utah**

<https://archives.utah.gov/research/indexes/20842.htm>

Who can sign the
death certificate

Who can sign the death certificate

1. The Medical Examiner (forensic pathologist)
2. Healthcare provider in charge of the decedent's care
3. Healthcare provider in attendance either at the time of death or immediately before or after

Health care provider: MD, DO, Chiropractor

New legislation now also authorizes Physician Assistants and Nurse Practitioners

Role of the Medical Examiner

What is the role of the Medical Examiner (ME)

- Investigate deaths
- Certify cause and manner of death
- Provide testimony in court
- Review DCs flagged by Vital Records
 - Vital Records reviews EVERY DC and forwards them to us if they note anything abnormal

Welcome to
Utah Office of the
Medical Examiner

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Taylorsville, UT 84129-8600
Phone: (801) 816-3850
Fax: (801) 964-1240

Contact Us
Map and Driving Instructions

Medical Examiner Jurisdiction

Utah ME Act, 26-4-7

- By violence, gunshot, suicide or accident (or complications of)
- Poisoning or overdose
- Unattended deaths
- Unexpected death during a diagnostic or therapeutic procedures
- Sudden death while in apparent good health
- Suspicious or unusual circumstances
- Diseases that may constitute a threat to public health
- Disease, injury, toxic effect or exertion on the job
- Suspected SUID (sudden expected infant death)
- In prison, jail, or police custody

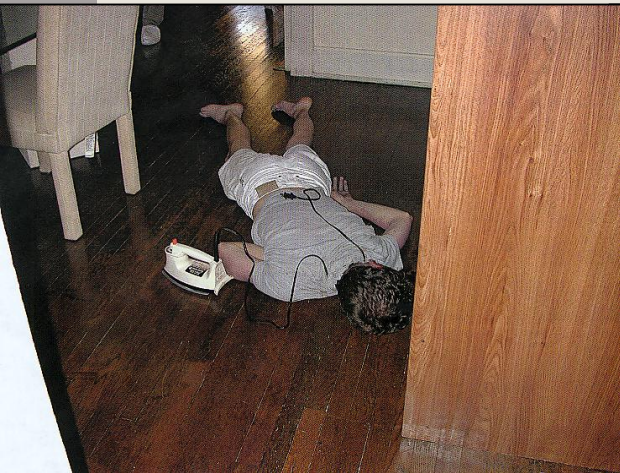
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Death by violence, gunshot, suicide or accident

- These are usually obvious because they often die acutely
- However, you should recognize the delayed deaths
 - Time between injury and death does not change manner if causal linkage is there
- Examples (real cases originally certified as **NATURAL** but flagged by Vital Records):



Death by violence, gunshot, suicide or accident

- Individual was beat with a lead pipe by another individual
 - Suffered traumatic brain injury but survived
 - Subsequently developed a seizure disorder
 - Years later, witnessed to become unresponsive during a seizure and can't be resuscitated

Manner of death in this case is **HOMICIDE**
and must be reported to the ME

Death by violence, gunshot, suicide or accident

- Individual slips on ice and suffers a hip fracture
 - Undergoes surgery and subsequently discharged in good health
 - Days later develop a wound infection that leads to gangrene, sepsis and death

Manner of death in this case is **ACCIDENT**
and must be reported to the ME

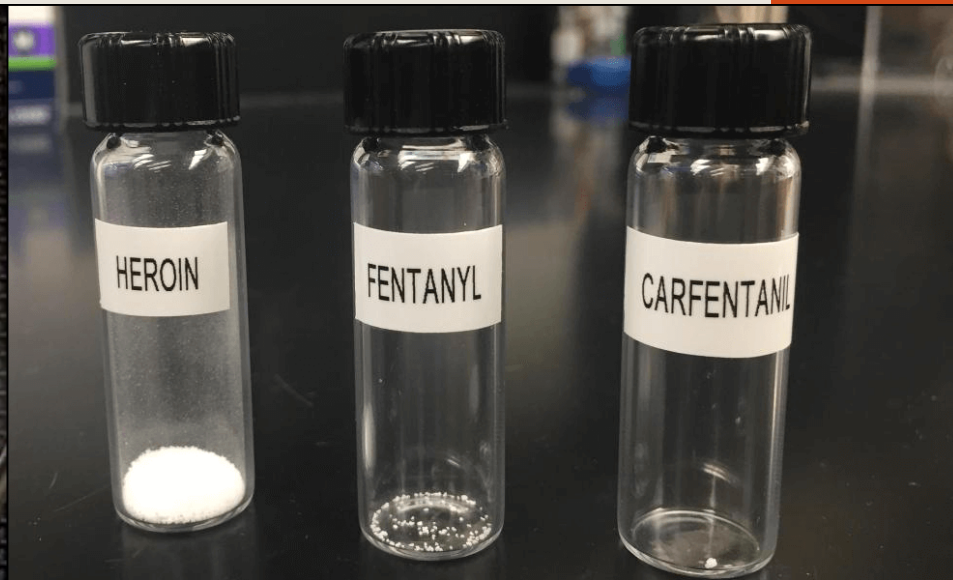
Death by violence, gunshot, suicide or accident

- Individual attempts to commit suicide by hanging
 - Survives but is in a vegetative state for the next 10 years
 - Life saving efforts are eventually withdrawn

Manner of death in this case is **SUICIDE**
and must be reported to the ME

Poisoning or Overdose

- If you have any suspicion that death is due to overdose (prescription or illicit) or acute ingestion of a toxic substance, report death to ME
- Death due to chronic alcoholism or history of drug abuse can still be considered **NATURAL**
 - However, report to ME if there is suspicion for acute intoxication



Attended Death

- A death that occurs when the decedent...
 - has seen a healthcare provider within 30 days of death
 - has filled a prescription related to terminal disease within 30 days death

Attended Death

- DOPL expectations:
 - If a healthcare provider is actively prescribing medications to treat a patient's medical morbidities, they should certify the death if it results from those morbidities
- For example (again...real case):

Attended Death

- 65-year-old male with a history of chronic obstructive pulmonary disease, diabetes, obesity, sleep apnea and coronary atherosclerotic disease.
 - Found unresponsive in bed by his wife
 - 911 called and law enforcement/EMS pronounce death
 - Nothing suspicious found at scene
 - Multiple prescription bottles found that were filled the previous week
 - Had not physically seen the prescribing physician for 10 months
 - Prescribing physician notified but refused to sign the death certificate

This is an obvious **NATURAL** death and the prescribing/attending physician is required to sign

Unexpected death during a diagnostic or therapeutic procedures

- If provider DOES NOT consider death to be a reasonable complication of a procedure it is an **ACCIDENT** and MUST be reported
- For example:
 - Young patient experiences cardiac arrest while undergoing a routine sigmoidoscopy
 - Death is not an expected reasonable complication of this minor procedure

Unexpected death during a diagnostic or therapeutic procedures

- If death is considered a possible complication of a procedure then it DOES NOT need to be reported
- For example:
 - Patient with metastatic sarcoma of the chest is undergoing transbronchial biopsy of a new lung lesion
 - The needle punctures through a fistula and patient exsanguinates
 - Death is a reasonable complication given patient's disease

This is considered **NATURAL** and can be signed as
Complications of metastatic sarcoma

Role of the healthcare provider

Healthcare providers are responsible for...

- signing DCs in cases of Attended Death
 - i.e. decedent seen in person or refilled a related prescription within 30 days of death
- correctly filling out the CAUSE and MANNER OF DEATH on the DC
- contacting the ME for anything NON-NATURAL

Cause of Death

- Know the difference between cause and mechanism of death
- Mechanism of death cannot be the only thing on the DC

CAUSE OF DEATH (See instructions and examples)		Approximate interval: Onset to death
<p>32. Part I. Enter the <u>chain of events</u>—diseases, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST</p> <p>a. <u>Cardiac Arrest</u> Due to (or as a consequence of): _____</p> <p>b. <u>Respiratory Arrest</u> Due to (or as a consequence of): _____</p> <p>c. <u>Cardiopulmonary Arrest</u> Due to (or as a consequence of): _____</p> <p>d. _____ Due to (or as a consequence of): _____</p>		<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
Part II. Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in Part I.		33. WAS AN AUTOPSY PERFORMED? • •Yes • •No
		34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? • •Yes • •No

Cause of Death

- Cause of Death is the healthcare provider's BEST MEDICAL OPINION
- You can use terminology like “possible”, “probable” or “complications of”

CAUSE OF DEATH (See instructions and examples)		Approximate interval: Onset to death
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Cause of Death

- Wording doesn't need to be difficult
- Sequence of events doesn't need to be complicated

CAUSE OF DEATH (See instructions and examples)		Approximate interval: Onset to death
32. Part I. Enter the <u>chain of events</u> —diseases, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE Enter only one cause on a line. Add additional lines if necessary.		
IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a. Severe atherosclerotic coronary artery disease	
	Due to (or as a consequence of):	
	b. _____	
	Due to (or as a consequence of):	
	c. _____	
	Due to (or as a consequence of):	
	d. _____	
Part II. Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in Part I.		33. WAS AN AUTOPSY PERFORMED? • •Yes • •No
		34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? • •Yes • •No

Cause of Death

- If the decedent had multiple medical co-morbidities you may be unsure of the actual cause
- Don't just list all of the patient's diagnoses

CAUSE OF DEATH (See instructions and examples)		Approximate interval: Onset to death
32. Part I. Enter the <u>chain of events</u> —diseases, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE Enter only one cause on a line. Add additional lines if necessary.		
IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a. Chronic kidney failure	
	b. <small>Due to (or as a consequence of):</small> Atherosclerotic coronary artery disease	
	c. <small>Due to (or as a consequence of):</small> Chronic obstructive pulmonary disease	
	d. <small>Due to (or as a consequence of):</small> Obesity	
Part II. Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in Part I.		33. WAS AN AUTOPSY PERFORMED? • •Yes • •No
		34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? • •Yes • •No

Cause of Death

- Just make it simple
- Can use Natural disease, NOS, and list diagnoses in OSC

CAUSE OF DEATH (See instructions and examples)		Approximate interval: Onset to death																		
<p>32. Part I. Enter the <u>chain of events</u>—diseases, injuries, or complications—that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE Enter only one cause on a line. Add additional lines if necessary.</p> <table border="0"><tr><td rowspan="4">IMMEDIATE CAUSE (final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST</td><td>a. _____</td><td>_____</td></tr><tr><td>Due to (or as a consequence of): _____</td><td>_____</td></tr><tr><td>b. _____</td><td>_____</td></tr><tr><td>Due to (or as a consequence of): _____</td><td>_____</td></tr><tr><td></td><td>c. _____</td><td>_____</td></tr><tr><td></td><td>Due to (or as a consequence of): _____</td><td>_____</td></tr><tr><td></td><td>d. _____</td><td>_____</td></tr></table>		IMMEDIATE CAUSE (final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	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. _____	_____	
IMMEDIATE CAUSE (final disease or condition resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	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. _____	_____																		
<p>Part II. Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in Part I.</p> <p>Chronic kidney disease, atherosclerotic coronary artery disease, chronic obstructive pulmonary disease, obesity</p>		<p>33. WAS AN AUTOPSY PERFORMED? • •Yes • •No</p> <p>34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? • •Yes • •No</p>																		

Natural vs Non-Natural

- Only DCs you should be signing without ME notification are for natural disease
- Doesn't mean you are prohibited from signing DCs with non-natural manners of death

Designated Representatives

- Sometimes you care for patients who ultimately die from complications of an ACCIDENT
- If you are comfortable indicating a non-natural manner of death, you can be a Designated Representative for the ME
 - ME must be notified (an OME case # needs to be issued)
 - Homicide, Suicide and Undetermined manners must still come to the ME

Designated Representatives

- Injury information should be filled out on the DC
- Fill it out to the best of your ability but some things you may not know
 - Important to indicate whether injury occurred at work
 - If accident occurred at work it MUST come to the ME
 - Make description of injury simple

38. DATE OF INJURY (Mo/Day/Yr) (Spell month)	38. TIME OF INJURY	40. PLACE OF INJURY (e g, Decedent's home; construction site; restaurant; wooded area)	41. INJURY AT WORK? • •Yes • •No
42. LOCATION OF INJURY: State:		City or town:	
Street and number:		Apartment No:	Zip code:
43. DESCRIBE HOW INJURY OCCURRED: Slipped on ice outside of residence			44. IF TRANSPORTATION INJURY, SPECIFY: • •Driver/Operato • •Passenger

Examples / Questions

Which of the following needs to be reported to the ME?

- A. 68-year-old female was recent diagnosis of ovarian cancer suffers cardiac arrest during a debulking surgery and cannot be resuscitated
- ☒ B. 38-year-old male with quadriplegia after being involved in a motor vehicle accident as a teenager, dies of septic shock after developing an infected decubitus ulcer.
- C. 9-year-old female with epilepsy becomes unresponsive after suffering a seizure and cannot be resuscitated

Which of the following needs to be reported to the ME?

- A. 78-year-old female on hospice is diagnosed with a subdural hematoma after tripping on a rug and suffering a ground level fall. She has a DNR and is not resuscitated.
- B. 3-day-old female delivered to a mother with admitted heroin use up to the time of delivery, suffers a seizure and is diagnosed with global anoxic brain injury. Given grim prognosis she is placed on comfort care and passes away.
- C. 50-year-old male with poorly controlled diabetes complicated by peripheral neuropathy and kidney failure is found deceased in bed by his wife.

Which of the following needs to be reported to the ME?

- A. 18-year-old non-mobile male with cerebral palsy dies of septic shock after developing an infected decubitus ulcer.
- B. 57-year-old male with liver cirrhosis due to chronic alcoholism is found unresponsive in his recliner by a friend. Law enforcement arrives at the scene and finds nothing suspicious.
- C. 96-year-old female who resides at an assisted living senior care facility is found deceased with her head wedged between the bedrail and mattress during a routine nursing check.

A 30-year-old male is involved in a motor vehicle accident, in which he suffered multiple skeletal fractures, left lung laceration with hemothorax, and liver laceration. He survived multiple surgical procedures but succumbed to his injuries 10 days later. Manner of death is considered an Accident and you are acting as a Des Rep for the ME. What is the most appropriate way to fill out the DC?

A.

IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a.	Multiple blunt force injuries
		Due to (or as a consequence of):
	b.	
		Due to (or as a consequence of):
	c.	
		Due to (or as a consequence of):
	d.	

B.

IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a.	Cardiopulmonary arrest
		Due to (or as a consequence of):
	b.	Motor vehicle collision
	c.	
		Due to (or as a consequence of):
	d.	

C.

IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a.	Anoxic brain injury
		Due to (or as a consequence of):
	b.	
		Due to (or as a consequence of):
	c.	
		Due to (or as a consequence of):
	d.	

A 50-year-old male is found deceased in bed by his wife. He has a complicated medical history including poorly controlled diabetes that has resulted in dialysis dependent end stage kidney disease, obesity, atherosclerotic coronary artery disease, and chronic obstructive pulmonary disease. What is the most appropriate way to fill out the DC?

A.

IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a.	Cardiopulmonary arrest	_____
		Due to (or as a consequence of):	
	b.	Diabetes Mellitus	_____
	c.	Due to (or as a consequence of):	
	d.	_____	

B.

IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a.	Diabetes Mellitus	_____
		Due to (or as a consequence of):	
	b.	Atherosclerotic coronary artery disease	_____
	c.	Due to (or as a consequence of):	
	d.	Chronic obstructive pulmonary disease	_____

C.

IMMEDIATE CAUSE (final disease or condition -----> resulting in death) Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST	a.	End stage kidney disease	_____
		Due to (or as a consequence of):	
	b.	Diabetes Mellitus	_____
	c.	Due to (or as a consequence of):	
	d.	_____	

Part II. Enter other significant conditions contributing to death but not resulting in the underlying cause given in Part I.	33. WAS AN AUTOPSY PERFORMED? • • Yes • • No
Atherosclerotic coronary artery disease, COPD, obesity	34. WERE AUTOPSY FINDINGS COMPLETELY CONSISTENT WITH THE CAUSE OF DEATH?

If you ever have any questions about a death or what falls under the jurisdiction of the ME you can call

801-816-3850 ext. #1

We have 24-hour investigators to help

References:

- Utah Health Code Title 26, Chapter 4 (Utah Medical Examiner Act)