“No greater honor will ever be bestowed on a Justice of the Peace or a more profound duty imposed on him or her than when he or she is entrusted with the investigation of the death of a human being. It is his or her duty to find the facts, regardless of color or creed, without prejudices and to let no power on earth deter him or her from documenting these facts without regard to personality ...”

Hays County

Inquest: Cause and Manner of Death

Hon. Scott Cary
# The History

- Medical investigations of death have been happening from ancient Greece to ancient China.
- Over 800 years ago, England established the practice of an ‘inquest’ that could be ordered by the court.

**FUN FACT**

There is record of a coroner’s inquest in Plymouth in 1635.

## Why Are Inquest Performed?

- Legal Requirements
- Records Keeping Purposes
- Checks on Other Agencies
- The Voice of the Deceased
- To Determine What Happened
When are inquests required?

- Homicide/unlawful means
- Unnatural death
- Children under 6
- Suicide
- Body parts
- Jail or prison death
- No attending physician/physician unable to certify

Subchapter B. Duties Performed By Medical Examiners: Art. 49.25. Medical Examiners

- Sec. 6. DEATH INVESTIGATIONS. (a) Any medical examiner, or his duly authorized deputy, shall be authorized, and it shall be his duty, to hold inquests with or without a jury within his county, in the following cases: 1. When a person shall die \textbf{within twenty-four hours} after admission to a hospital;

- The 24 hours does NOT apply to you

\textbf{There is no requirement to perform an inquest within 24 hours of admission just because a person dies at a hospital}
Why do we use the death certificate and TxEver system that we do?

- The certificate is similar to an international standard set in the 1940s.
- The CDC updates and reviews the US version every 10-15 years.

**FUN FACT**
Unlike laws that change, the body works the same when you cross a county or country line.
Why Is Completing the Death Certificate So Important

- Community health concerns
- Pensions and life insurance calculations
- Track health spending
- Track infant and maternal mortality rates
- Settling estates
- Preventing fraud
- Health research

This is a sample Text.
What are we looking for when completing the death certificate?

<table>
<thead>
<tr>
<th>Manner of Death</th>
<th>Category of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why Someone Died</td>
<td>Cause of Death</td>
</tr>
</tbody>
</table>

(Natural, accident, suicide, homicide, and underdetermined)
Cause of Death

The chain of events that killed someone

Part 1 (a) – (d)
Death Certificate
Line (a): Immediate Cause

The specific disease or condition that happened right before patient's death

**Examples**

- Drowning
- Heart Failure
- Skull Fracture

This is a sample Text.

This is a sample Text.
Lines (b)-(d): The Steps That Lead to Line (a)

- *Don’t have to use all lines, only MUST use (a)*
- The chain of events in reverse chronological order - It should read like a story
- Each condition listed should have caused the condition listed on the line above

Tell The Story
**Tell The Story : Example**

- Decedent had breast cancer
- The cancer spreads (metastases)
- Has heart failure

**Line (d): Underlying Cause of Death**

- Might not exist in every case
- The underlying cause is NOT the result of another condition
- This is the condition that started the chain of events leading to death
- Underlying cause drives mortality statistics for leading cause of death

Examples: Diabetes, Fall, Alcoholism
Is this properly completed?

A. Yes  B. No

32. PART I. Enter the chain of events—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.

**Hypertension (low blood pressure)**

**Cardiopulmonary Arrest (Heart Stops)**

---

**NO!**

- Low blood pressure should not be the last condition reported because something must cause it - like a heart attack from cardiovascular disease.
The Way Someone Died
(Heart Failure or Respiratory Failure)
Needs to have information on the other lines explaining why the heart stopped

World Health Organization ICD-10 Training

How can we improve death certificate reporting?
Theme of This Class

- We want to do the best and most helpful job we can filling out the death certificate.
- This is because what we choose to write has a lasting impact on research and data.
- What is wanted from us by state and national agencies is to pick the best words/descriptions and give enough information.
- It’s not just us JP’s. Some of the examples we’re using come from education directed at doctors and medical examiners. We can all keep trying to improve.

A word about physicians

- 80% of death certificates are signed by medical doctors
- Physicians get NO training in medical school regarding death certificates
- They do not like to complete death certificates, because:
  - They blame it on lack of staff and training
  - They do not have the time
  - They are not actually “attending” at the time of death
  - They are not at the scene of the death
- Once a person is a dead:
  - The decedent is no longer the doctor’s patient!
  - The job ends at the time of death!
Better ways to state causes of death
- VIEWS system
What not to include
Try to be as specific as possible about a disease
- More specific disease names
- Include other helpful information
Make sure to include injury information

“VIEWS” System
Validations and Interactive Edits Web Service
“VIEWS” System

- An online service from National Center for Health Statistics and Centers for Disease Control
- Suggest better quality data during use of electronic death registration systems
- Can call your attention to spelling errors or be suggesting to use a more descriptive term

You Can Hit “OK” Through It But...

- ...VIEWS it is meant to make you stop and think about the word/s you are choosing
- VIEWS not telling you are ‘wrong’
- VIEWS telling you that there might be a better word to describe the events
- VIEWS telling you make sure you explain the term further
The National Group That Monitors Causes of Death Pull Data By A “Search Term”

- What you are entering goes directly into a database HOW you entered it – it only enters the terms you use

- That’s why using descriptive and specific terms is so important
  
  Example: If they are searching the flu or specific illness, your death certificate needs to state that illness

This is on the “Blue Form” of the Death Certificate

It’s Really The Same As “VIEWS”

additional information about the etiology should be reported:
Examples From the Blue Form

- Some should never be used: Old age – obviously not a medical condition; sometimes people use failure to thrive – these terms should not be used anywhere on the death certificate.
- Some would be great to include on part Part II (we’ll talk about that in a bit)
  - Bed ridden – that is a situation that may have cause or worsened a medical condition; like getting a bedsore that gets infected and the person has sepsis.
  - Anorexia or Dementia – may contribute to another medical condition & could go onto line (d)
- If you are going to say “sepsis” or “renal failure” it should only be if you are going to include WHY they happened.

If you are going to use a term like “cardiac arrest”, “myocardial infarct” or “respiratory arrest”...

- You MUST include the underlying cause in the chain of events.
- These terms are mechanisms of death and need further information.

A cancer patient and a drug addict might both die of a heart attack. These are very different deaths and the underlying information needs to be recorded.

Example
What Kinds of Terms Would You Need to Include?

- Myocardial Infarct
- Severe Coronary Artery Disease
- Respiratory Arrest
- Chronic Bronchitis

Try To Be As Specific As Possible

- **Cancer example:**
  - Instead of “cancer”
  - Or “cancer of the glands”
  - Write: “Adenocarcinoma of the right upper lung with metastases to the brain”
  - This let’s the data record the KIND of cancer (lung) and that it ultimately spread (metastases) to the brain

- **Abbreviation example:**
  - Instead of STD
  - Pneumocystis carinii pneumonia & acquired immunodeficiency syndrome (this
YES – You Need A Medical Terminology Resource!

Medicinenet.com

CDC.gov

Was There An Injury Involved?

- State if the injury was related to transportation (including role of decedent) – TxDOT reporting requirement!
- Report other injury information (date, time, location, work related)
- Describe how injury occurred
- Helps to effectively report disaster related deaths
- Provides valuable details about circumstances of death
More Best Practices

1. Don’t report multiple conditions per line
2. Don’t continue the sequence in Part II
3. Don’t provide a list of every single ailment

Scenario
A man falls from a ladder 10 feet while cleaning his windows at home

He fractures his skull (occipital fracture)

Where do you record the fall – Line (a), (b), or (c)?

**ANSWER!**

Part I
- (a) occipital fracture
- (b) fall 10 feet onto ground while cleaning windows at home

• Bonus points! Who wrote the proper terminology instead of skull fracture?
The decedent had been working construction out of state.

Spent 2 days staying at a friend's house drinking heavily. Friend claimed no drug use.

Dies

His friend says that earlier in the afternoon, after a full day of heavily consuming alcohol, the decedent was extremely intoxicated, passed out in the recliner in the living room.

It initially appeared that he was highly intoxicated, passed out and aspirated on vomit.

**SCENARIO!**

**Autopsy Toxicology Report Findings:**

- Femoral blood concentration of:
  - Ethanol = .114 g/dL
  - Morphine (active metabolite of heroin) = 125 ng/mL
  - Codeine (active metabolite of heroin) = 14 ng/mL
  - Methadone = 471 ng/mL
  - EDDP (inactive metabolite of methadone) = 34 ng/mL

- Urine drug screen positive for 6-momacetyl morphine (metabolic of heroin)
### Autopsy Report & Death Certificate

#### What Are The Important Words To Include For Data Collection?

**USE OF DEATH:** ACUTE MIXED DRUG INTOXICATION (HEROIN, METHADONE AND ETHANOL)
Scenario

- Women was found deceased in a lake.
- It was ruled a suicide after interviewing family who said recent events made her say she was going to drown herself in this lake.
- She was also found to have been recently evaluated and released in a mental health faculty after a crisis call.
How To Give Good Data?

- **Cause?**
  - Drowning
- **Manner?**
  - Suicide
- **What can we include about the underlying mental health issues?**
  - Part II
- **Where would we include this?**
  - Could say: recent mental health intervention or recent mental health crisis call and evaluation

Decedent was in hospice at home after a fall.

A week later notified of death by a call from the funeral home.

Hospice doctor won’t sign

What would you do?
Scenario

Man went into traumatic shock after being hit by a truck while crossing the road and fracturing his ribs, femur, and skull.
Part II
Death Certificate

Scenario
Man went into traumatic shock after being hit by a truck while crossing the road and fracturing his ribs, femur, and skull.

• (a) blunt force trauma
• (b) fracture of ribs, skull and right femur
• (c) pedestrian hit by a truck
### “Other Significant Conditions”

- Disease or condition which contributed to the death, but which was not part of the sequence in Part I.
  - Examples:
    - Obese
    - Smoker
    - Alcoholic
    - Anorexia

*This is the correct place for some of the terms from the ‘blue form’*
### Order and Duration of Events

**Death Certificate**

<table>
<thead>
<tr>
<th>IMMEDIATE CAUSE (Final disease or condition)</th>
<th>Approximately: Onset to death</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Due to (or as a consequence)</td>
<td></td>
</tr>
<tr>
<td>b. Due to (or as a consequence)</td>
<td></td>
</tr>
<tr>
<td>c. Due to (or as a consequence)</td>
<td></td>
</tr>
</tbody>
</table>

**CAUSE OF DEATH (See instructions and examples)**

32. **PART I.** Enter the chain of events—diseases, injuries, cardiac arrest, respiratory arrest, or ventricular fibrillation—resulting in death. DO NOT enter terminal events such as pneumonia, heart failure, or stroke. DO NOT ABBREViate. Enter only one cause on a line. Add additional lines if necessary. **Underlying cause** is the event that initiated the events resulting in death. **Last event** is the event that directly caused the death. DO NOT enter terminal events such as pneumonia, heart failure, or stroke. DO NOT ABBREViate. Enter only one cause on a line. Add additional lines if necessary.

<table>
<thead>
<tr>
<th>Approximate interval: Onset to death</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

33. **WAS AN AUTOPSY PERFORMED?**

- Yes
- No

34. **WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH?**

- Yes
- No

35. **DI TOBACCO USE CONTRIBUTE TO DEATH?**

- Yes
- Probably
- No
- Unknown

<table>
<thead>
<tr>
<th>Approximate interval: Onset to death</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

37. **MANNER OF DEATH**

- Natural
- Homicide
- Accident
- Pending Investigation
- Suicide
- Could not be determined

38. **DATE OF DEATH**

8/10/2020

**57**
Interval Between Presumed Onset of the Condition and Time of Death (not the date of diagnosis)

- Reporting the duration or the time interval between the onset of each condition entered on the certificate and the date of death.
- 15 minutes, 5 hours, 4 days, 12 years
- Minutes, hours, days, years
- Unknown, approximately ___

Example: MVA or cannot be not years for immediate cause of death
A 49 year old male was brought to the ER with an infected wound of the right foot.

His wife reported that working in the field two week ago, he stepped on a nail. He treated the cut by himself.

Because of reported convulsions, he was admitted to the hospital.

The examining doctor made a diagnosis of tetanus.

The man died of asphyxia (body deprived of oxygen) during convulsions the day after admission.

**ANSWER!**

Part I
(a) Convulsions
(b) Tetanus infection
(c) Infected puncture wound of right foot

Part II
Exception to nail while working in field
Disaster Related Deaths

What Is A Disaster?

• “An occurrence that has resulted in property damage, deaths, and/or injuries that overwhelms the community resources”
  – Federal Emergency Management Association

Examples: Wildfires, Flooding, Hurricanes
Why Include Disasters in a Death Certificate?

- Like other data pulled nationally or statewide, can help with funding
- Can help with other issues, like road repair
- No harm in including – but could end up helping

Where To Report Disaster?

- **Part I or Part II** of the cause of death can contain Disaster type and name
  - Can include in **Part I** if it was part of the causal chains of events directly leading to death
  - Can include in **Part II** if it contributed to death, but was not part of causal chain of events listed in Part I

- "**Describe How Injury Occurred**" field can contain a clear, brief statement referencing the disaster and circumstances surrounding the death.
Examples of Death Certificate Including Disaster

CAUSE OF DEATH (See instructions and examples)

IMMEDIATE CAUSE (Final disease or condition resulting in death)

a. Asphyxia

b. Smoke inhalation from Bastrop Wildfire

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

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

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

Asthma
CAUSE OF DEATH (See instructions and examples)

32. PART I. Enter the chain of events—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)

a. Acute or exacerbated chronic kidney failure (Due to [or as a consequence of])

b. Type II Diabetes (Due to [or as a consequence of])

c. _____________________________ (Due to [or as a consequence of])

d. _____________________________ (Due to [or as a consequence of])

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

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

Unable to receive dialysis for 6 days due to Hurricane Maria related power outage at local treatment center.

37. MANNER OF DEATH

☐ Natural  ☐ Homicide
☐ Accident  ☐ Pending Investigation
☐ Suicide  ☐ Could not be determined

CAUSE OF DEATH (See instructions and examples)

32. PART I. Enter the chain of events—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)

a. Strangulation due to hanging (Due to [or as a consequence of])

b. _____________________________ (Due to [or as a consequence of])

c. _____________________________ (Due to [or as a consequence of])

d. _____________________________ (Due to [or as a consequence of])

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

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

Unable to obtain antipsychotic medication after evacuating for Hurricane Katrina.

37. MANNER OF DEATH

☐ Natural  ☐ Homicide
☐ Accident  ☐ Pending Investigation
☒ Suicide  ☐ Could not be determined
A 28-year old male died when a tree fell on him during Hurricane Sandy. He suffered multiple trauma, including a fractured skull causing cerebral contusion. Emergency medical service and police reports indicated he thought the hurricane had passed and was walking his dogs.
(a) Cerebral contusion (bleeding in the brain)
(b) Fractured Skull
(c) Blunt impact to head

- Other significant conditions: N/A
- Injury Info: Decedent was struck by a falling tree during Hurricane Sandy
Example: Flood

On Memorial Day 2015, a 24-year-old male drowned when attempting to walk across a bridge to get to his house.

• Part I (a) Drowning
• Part II: Decedent drowned in a river when attempting to cross a bridge during the Memorial Day Floods

COVID-19
CDC webinar information
LIVE 429

Identifying Deaths Due to COVID-19

- If COVID-19 is determined to be a cause of death, it should be reported on the death certificate, likely as the underlying cause of death.
  - Testing should be conducted, if possible.
  - If a definitive diagnosis cannot be made, but it is suspected or likely, it can be reported as “probable” or “presumed.”
- Generally, it is best to avoid abbreviations and acronyms, but COVID-19 is unambiguous, so it is OK to report it.
- Pre-existing conditions that may increase susceptibility to infection or exacerbate the disease, such as COPD or asthma, should be reported in Part II.

LIVE 443

General Guidelines

- Use any information available to you, such as:
  - Medical history,
  - Medical records,
  - Laboratory tests,
  - Autopsy report, and
  - Other relevant sources of information.
- Use your best medical opinion regarding the causes and circumstances of death.
CDC Cause of Death “Quick Reference Guide” App

References

- World Health Organization ICD-10 training tool
- TxEver Improving Disaster-Related Death Registration presentation
- Centers for Disease Control and Prevention National Center for Health Statistics “Improving Cause of Death Reporting”
- Texas Vital Statics Handbook on Death Registration
- “Physicians’ handbook on medical certification of death”
- “ME and Coroners handbook on death registration and fetal death reporting”
  - https://www.cdc.gov/nchs/data/misc/hb_me.pdf
Thank you!