

The Death Certificate Dilemma

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PRE-TEST

1. Which of the following is a cause of death as opposed to a mechanism?
 - A. Shock
 - B. Respiratory arrest
 - C. Pericardial tamponade
 1. D. Blunt force injuries of the head
 2. E. Heart failure

PRE TEST

2. How many days to you have to certify a death certificate after the funeral home brings it to you?
 - A. 5
 - B. 10
 - C. 4
 - D. 0

PRE TEST

3. A 93-year-old female falls at home after tripping on her grandson's toy and fractures her hip. She is admitted to the hospital, has surgery and then develops pneumonia and dies on post-op day #4. Which is the correct cause and manner of death:

1. Hip fracture/Accident
2. Pneumonia/Natural
3. Hip fracture/Natural
4. Pneumonia/Accident



CORONER

VS

MEDICAL EXAMINER

??????

ROLE of the MEDICAL EXAMINER

- ***TEXAS CODE OF CRIMINAL PROCEDURE***
 - Chapter 49--*Inquests* upon dead bodies
- Justice of the peace vs medical examiner
- Reports of death
 - Chapter 49.25 Section 7
- Any police officer, superintendent of institution, physician or private citizen who shall become aware of a death....(Section 6a), shall immediately report the death to the office of the medical examiner or...police departments.....

REPORTING DEATHS

- Deaths within 24 hours of admission to a hospital, institution or jail
- When any person is killed or dies an unnatural death, except under sentence of law
- Dies in the absence of one or more good witnesses
- When a person is found, the cause and circumstances of death are unknown (whether or not the body is identified)
- Suspicion that the death is by unlawful means

REPORTING DEATHS

- A child under the age of six and the death is reported under Chapter 264 of the Family Code
- Deaths over 24 hours of admission that are due to non-natural means

MEDICAL EXAMINER CASES

- Do ***NOT*** remove any medical intervention
- Do ***NOT*** give clothing to the family
- Remember ***PROXIMATE*** cause of death
- Do ***NOT*** ask the family if they do or do not want an autopsy!
- It is okay to let family members spend time with the decedent

DATA and VITAL STATISTICS

- World Health Organization
- *International Classification of Diseases*
 - nosologists
 - inflexible system
- Legal document
 - *not* admissible in court
 - confidential
 - HSC 191.051, 25 TAC 181.1

IMPORTANCE

- Allocation of services, funding, resources
 - monitoring morbidity and mortality
 - assist in study and research
 - plan health policies
 - implement public health strategies
 - legislative change
 - health funding

WHO SHOULD CERTIFY??

- *External causes involved in the death?*
 - *Trauma, actions inflicted on another, action to himself?*
- *Natural causes involved in the death?*
 - *Why did the patient die?*
 - *What were the sequence of events leading to death?*
 - *Was this death expected?*
 - *Was an autopsy performed?*

TEXAS STATUTES

- Texas Health and Safety Codes
 - Chapter 193

- Texas Occupation Codes
 - Medical Practice Act (Chapter 164)
 - Remedial Plan



PHYSICIANS' RESPONSIBILITY

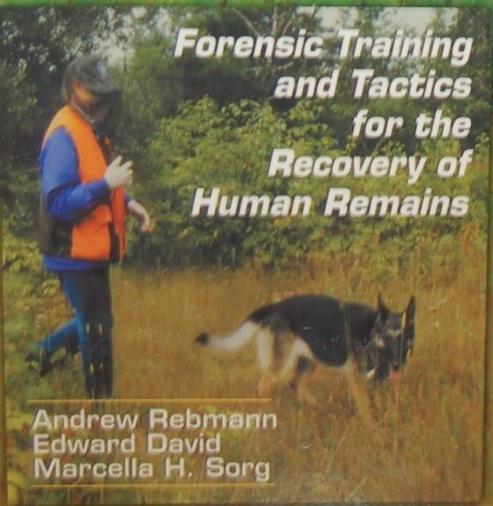
- Pronouncing vs Certifying physician
- Undue delays
- Abandonment of patients' interests
- Falsifying of data
 - Best medical opinion, to the best of knowledge

an AVERAGE DAY in TEXAS...

- ★ Population increases by 573
- ★ 1034 births
- ★ 460 deaths
 - ★ 104 heart disease
 - ★ 102 cancer
 - ★ 25 all causes of accidents
 - ★ 6 infants

CADAVER DOG HANDBOOK

*Forensic Training
and Tactics
for the
Recovery of
Human Remains*



Andrew Rebmann
Edward David
Marcella H. Sorg



CAUSE of DEATH

“any injury or disease that produces a physiologic derangement in an individual that results in that individual dying”

- ★ Multiple blunt force injuries
- ★ Adenocarcinoma of the prostate
- ★ Gunshot wound of the head

MECHANISM of DEATH

“the physiologic derangement produced by the cause of death that results in death”

- ★ Cardiac arrhythmia
- ★ Hemorrhage
- ★ Cerebral edema

CAUSE of DEATH STATEMENT

★ PART I

- ★ sequence of events where one condition results from the condition that precedes it (*cause and effect*)
 - ★ Single, two, three and four line format
- ★ The ***UNDERLYING*** cause of death has the greatest medical legal and epidemiologic importance!!!!
 - ★ Must be on the lowermost completed line

CAUSE of DEATH STATEMENT

★ Part II

- ★ Significant conditions related to the cause of death but not resulting in the underlying cause of death
- ★ Substance abuse
- ★ Diabetes
- ★ Dilated cardiomyopathy

MANNER of DEATH

“explanation of how the cause of death came about”

★ Expressed as an opinion

MANNER of DEATH

- ★ **NATURAL**
- ★ **ACCIDENT**
- ★ **SUICIDE**
- ★ **HOMICIDE**
- ★ **UNDETERMINED**
- ★ **PENDING INVESTIGATION**

NONSPECIFIC PROCESSES

- **Arrhythmia**
- **Atrial fibrillation**
- **Heart failure**
- **Shock**
- **Ventricular fibrillation**
- **Dysrhythmia**
- **Hypotension**

NONSPECIFIC PROCESSES

- Altered mental status
- Brain stem herniation
- Anoxic encephalopathy
- Seizures
- Subdural hematoma
- Dementia
- Cerebral edema
- Intracranial hemorrhage

NONSPECIFIC PROCESSES

- **Coagulopathy**
- **DIC**
- **Immunosuppression**
- **Pancytopenia**
- **Renal failure**
- **Thrombocytopenia**
- **Hyperglycemia**

NONSPECIFIC PROCESSES

- Abdominal hemorrhage
- Ascites
- Bacteremia
- Bedridden
- Multiorgan failure
- Old age/chronic bedridden state
- Failure to thrive
- Gangrene

SPECIFIC UNDERLYING CAUSES

- Ruptured berry aneurysm
- Alzheimer's dementia
- Adenocarcinoma of prostate
- Primary biliary cirrhosis
- Idiopathic epilepsy
- Chronic alcoholism
- Trisomy 18
- Meningococcal meningitis

ISSUES and PROBLEMS

- Multiple conditions
- Fetal and infant deaths (use correct certificate)
- Drug toxicity
 - accident vs. suicide vs. natural
- Alcohol
 - Natural
 - cirrhosis
 - esophageal varicies
 - DTs

ISSUES and PROBLEMS

- Arrhythmia
- Elderly
 - DO NOT USE: old age, infirmity, etc...
 - UNSPECIFIED NATURAL CAUSES
- Pneumonia
- Cerebrovascular Deaths
 - Infarction
 - Hemorrhage
 - Ischemia

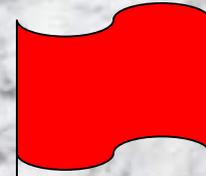
ISSUES and PROBLEMS

- Syndromes
 - Waterhouse-Friderichsen
 - Budd-Chiari
- Neoplasia
- Therapeutic misadventures
- Hyper and hypothermia
- ***PROXIMATE*** cause of death
 - Reversal of order

ISSUES and PROBLEMS

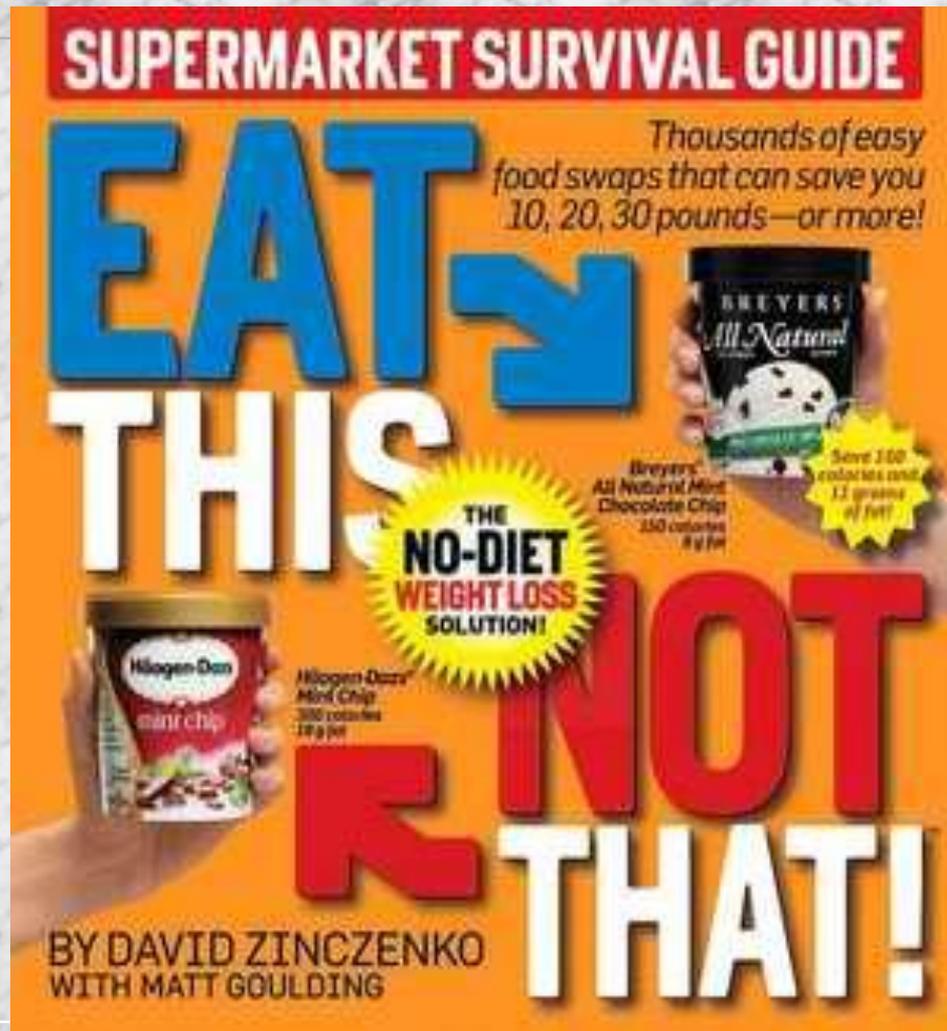
- We do not get the death certificate
- **Cause and Manner do not match**
- Physician is out of town or closed his practice
- Physician decides **NOT** to sign
 - patient already buried
- Information is falsified

RED FLAGS



- Subdural hematoma
- Epidural hematoma
- Subarachnoid hemorrhage
- Fracture, especially hip
- Pulmonary emboli
- Thermal burns
- Hypo and hyperthermia
- Seizure disorder
- Drug or alcohol overdose

EAT THIS, NOT THAT!



WRITE THIS

Squamous cell carcinoma of the cervix

NOT THAT!

Cancer

WRITE THIS

- **Hemorrhagic infarct of brain**

NOT THAT!

– **Cerebrovascular Accident**

WRITE THIS

- **Chronic Obstructive Pulmonary Disease**

NOT THAT!

– **Respiratory failure**

WRITE THIS

- **Acute coronary artery thrombosis**

NOT THAT!

Cardiac arrhythmia

WRITE THIS

– **Arteriosclerotic cardiovascular disease**

NOT THAT!

Cardiopulmonary arrest

CREMATION CLEARANCES



POST TEST

1. When is it appropriate to use “cardiopulmonary arrest as a cause of death when certifying a death certificate.
 - A. When there are multiple co-morbidities
 - B. When the cause and manner is unknown
 - C. Never

POST TEST

2. Which is not a “cause” of death?
 - A. Gunshot wound of head
 - B. Ruptured berry aneurysm of brain
 - C. Hypertensive arteriosclerotic cardiovascular disease
 - D. Cerebral edema
 - E. Acute diabetic ketoacidosis

POST TEST

3. Which of the following persons can sign a death certificate in the State of Texas?
 - A. Licensed physician
 - B. Nurse practitioner
 - C. County judge
 - D. A and B
 - E. A and C