Introduction

• Cause-of-death (COD) on death certificates (DCs) impacts:
  • Epidemiology tracking
  • Research
  • Public health interventions
  • Insurance payout
  • Justice

• National resources but no formal training for physicians

• 24-hour time period

• Reviewing hospital records best method to determine errors

Methods

• Retrospective sample, one institution, 1/1/2019 - 12/31/2019

• Exclusion criteria:
  • Final DC could not be obtained
  • Limited medical record

• Minor errors: do not affect interpretation of COD
  • Typographic errors (abbreviations, typos)
  • Omitted intervals
  • Multiple entries on Line A

• Major errors: affect interpretation of COD (according to CDC)
  • Non-specific COD
  • Omitted significant conditions
  • Inaccurate underlying sequence of events

Results

Frequency and Types of Errors

- No errors: 91%
- Minor errors only: 8%
- At least one major error: 1%

N=125

- 19.3% major errors only
- 80.7% both minor and major errors

Note: multiple major errors in 32% of all DCs

Percentage of Major Error Types

- Non-specific COD: 82.4%
- Other sig cond omitted: 45.6%
- Inaccurate sequence of events: 18.4%

Note: multiple major errors in 32% of all DCs

Discussion + Future Direction

• Current educational initiatives are lengthy + outdated → create condensed learning module with summary sheet

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. ____________________________

Due to (or as a consequence of):

b. ____________________________

c. ____________________________

d. ____________________________

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:

Note: multiple major errors in 32% of all DCs

34. WAS AN AUTOPSY PERFORMED?

- Yes
- No

33. WAS AN AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH?

- Yes
- No

35. DID TOBACCO USE CONTRIBUTE TO DEATH?

- Yes
- No

36. IF FEMALE:

- Not pregnant within past year
- Pregnant at time of death
- Not pregnant, but pregnant within 42 days of death
- Not pregnant, but pregnant 43 days to 1 year before death
- Unknown if pregnant within past year

Also:

- Minor error: include interval
- Minor error: include other significant conditions
- Minor error: check spelling
- Minor error: eliminate abbreviations

Scan to see the CDC’s recommendations on completing DCs!

References

Scan for my selected reference list

Funding

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More information needed:
- Abscess, ascites, infection
- Altered mental status, dementia, seizure
- Anemia, anoxia, aspiration
- Arrhythmia, atrial/ventricular fibrillation, ventricular tachycardia
- Ascites
- Septic shock
- Bowel obstruction/perforation
- Brain injury, stroke
- Cancer
- Dehydration, diarrhea, failure to thrive
- Hemorrhage
- Hyperglycemia, hyperkalemia
- Hypotension
- Immunosuppression
- Myocardial infarction
- Organ disease, failure
- Old age, trauma, paralysis, sudden death
- Pleural effusion
- Pulmonary edema, pulmonary embolism