Building physicians skills for accurate cause of death certification

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Construction workers are 3 times more likely to die from falls than any other occupation.
Relevance of cause of death information

• **Legal**
  – To certify the occurrence of a death
  – To define the nature: natural causes or not
  – Legal identity

• **Statistical**
  – Demographic aspects: sex, age, ethnic group, residence, socioeconomic data

• **Epidemiological / public health**
  – Cause(s)
  – Data for specific groups: infant and maternal deaths
The 7 steps necessary for the collection and publishing of cause of deaths statistics

1. Find the dead
2. Use WHO 2016 death certificate
3. Physicians certify deaths
4. Coders code Underlying cause of death
5. Data checking and validation
6. Data quality assessment
7. Tabulation and dissemination of statistics
Step 3: Physicians certify deaths

- Train physicians on how to complete the deaths certificate to conform with international standards.
- Concept of underlying cause of death.
- Be careful when transferring from paper to digital - data entry errors.
- Store each death as one record – micro data
- Automated systems have inbuilt validations.
- WHO conducts national death certification workshops.
- Training materials: WHO on-line certification course; handbook for certification of deaths.
Roles of doctors

• Doctors – certifier’s responsibility
  ➢ Good quality of diagnosis, operation notes, medical records and any other doctor notes
    ➢ Correctness
    ➢ Completeness
    ➢ Specificity
    ➢ Timeliness
  ➢ Readable
Good diagnosis

• Must include all words to described
  – What is the name of diagnosis?
  – Where is the location of disease?
  – Which type of disease?

• Must be final diagnosis or near final - not sign, symptom or condition
INTERNATIONAL STANDARD DEATH CERTIFICATE

• The international form of medical certificate of cause of death facilitates reporting the chain of events leading to death in a sequence.
• Important for international comparability.
WHO International form of medical certificate of cause of death (2016) is recommended for certification of death in all countries.
Definition of cause of deaths

“All those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced any such injuries”.

(Twentieth World Health Assembly, 1967)
The purpose of the definition

• To ensure all the relevant information are recorded
• To ensure certifier does not select some conditions for entry and reject others
• Does not include symptoms and modes of dying, such as Heart Failure and Respiratory Failure
Concept of “underlying cause of death”

• When more than one cause is recorded, there is need to select a single cause for reporting
• The selection is done by the coders, using mortality coding rules
• This single cause is usually given the special name underlying cause of death
• It is the condition, event or circumstances without which the patient would not have died
Sequence

• Refers to two or more conditions entered on successive lines of Part 1
• It is extremely important that doctors report the events in a correct sequence, in the part 1 of the certificate.
• Incorrect sequence result in the incorrect underlying cause of death selection by the coders
Ill-defined conditions

- Ill-defined conditions should never be reported in death certificates as underlying cause of death
- They are coded to unusable codes for public health and policy
Examples of ill-defined conditions

- I46.1 (Sudden cardiac death)
- I46.9 (Cardiac arrest, unspecified)
- I50.- (Acute heart failure in I50.-)
- I95.9 (Hypotension unspecified)
- I99 (Other and unspecified disorders of circulatory system)
- J96.0 (Acute respiratory failure)
- J96.9 (Respiratory failure unspecified),
- P28.5 (Respiratory failure of newborn)
Frequently used ill-defined terms

• **Accident**
  – Specify *circumstances*
  – Specify *intent*, as ‘car accident’ suicidal, or assault
  – Specify *place* of occurrence

• **Alcohol, drugs**
  – Specify *use*: long term or single, addiction

• **Complications of surgery**
  – Specify *disease*: disease that caused surgery

• **Dementia**
  – Specify *cause*: Alzheimer, infarction, old age, other
Frequently used ill-defined terms (cont.)

- **Hepatitis**
  - Specify **course, etiology**: acute or chronic, alcoholic
  - If **viral**: specify Type (A, B, C, ...)

- **Infarction**
  - Specify **site**: heart, brain, ...
  - Specify **cause**: arteriosclerotic, thrombotic, embolic ...

- **Infection**
  - Specify: primary or secondary, causative **organism**
  - If **primary**: specify bacterial or viral
  - If **secondary**: specify the primary infection
Frequently used ill-defined terms (cont.)

• **Leukaemia**
  – Specify: acute, subacute, chronic lymphatic, myeloid, monocytic

• **Pneumonia**
  – Specify: primary, aspiration, *cause*, causative organism
  – If due to *immobility*: specify the cause of the immobility

• **Pulmonary embolism**
  – Specify *cause*: cause of embolism
  – If *post-surgical or immobility*: specify *disease* that caused surgery or immobility
Frequently used ill-defined terms (cont)

• Renal failure
  – Specify: acute, chronic or terminal, underlying cause of insufficiency, like arteriosclerosis, or infection
  – If due to immobility: specify the cause of the immobility

• Thrombosis
  – Specify: arterial or venous
  – Specify: the blood vessel
  – If post-surgical or immobility: specify disease that caused surgery or immobility
Frequently used ill-defined terms (cont)

• **Tumour**
  – Specify: behaviour, location, metastases

• **Urinary tract infection**
  – Specify: **site** in the urinary tract, causative **organism**, underlying **cause** of infection
  – If due to **immobility**: specify the cause of the immobility
GENERAL GUIDELINES FOR DOCTORS COMPLETING DEATH CERTIFICATES
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- All entries must be legible
- Use black or blue ink
- Check the accuracy of identification data including correct spelling of the names
GENERAL GUIDELINES FOR DOCTORS COMPLETING DEATH CERTIFICATES

- Do not make alterations or erasures
- If you want to delete an entry, draw a single line across it
- Do not use correction fluid
GENERAL GUIDELINES FOR DOCTORS COMPLETING DEATH CERTIFICATES

- Only ONE Diagnosis per line in Part 1
- Do not speculate on the cause of death, rather record “cause unknown”.
- Avoid the use of Abbreviations BPH, MI, PID, etc.
- For accidents, injuries or poisonings, the external cause should ALWAYS be reported
GENERAL GUIDELINES FOR DOCTORS COMPLETING DEATH CERTIFICATES

- The mode of dying should not be reported as the immediate cause of death
- Provide precise information about the site or nature of the condition
- Remember to indicate if the patient was pregnant or recently pregnant at the time of death
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Thank you

http://www.emro.who.int/entity/civil-registration-statistics/index.html

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