

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



نمونه های از تعیین علت فوت

دکتر بشیر نازپرور

متخصص پزشکی قانونی

عضو هیئت علمی سازمان پزشکی قانونی کشور

مقدمه

اطلاعات ثبت شده در گواهی‌های
فوت به سیاستگذاران در تعیین
اولویت‌های سلامت برای
پیشگیری از مرگ‌های ناشی از
علل مشابه در آینده کمک می‌کند

مقدمه

نوع و کیفیت خدمات بهداشتی به
میزان زیادی بستگی به دقت
اطلاعات به دست آمده از گواهی‌های
فوت دارد.

منابع داده ها

تشخیص بالینی

تصمیمات درمانی

مرگ بهبودی

گواهی فوت

کدگذاری کارشناسی

مسئولین سلامت ملی

سازمان جهانی بهداشت و اعضا سازمان

ملل

استفاده

خانواده، اهداف قانونی و سایر اهداف

اولویتهای ملی برنامهها و سیاستگذاری بهداشتی و
بکارگیری منابع

آمارهای بین المللی سلامت و اولویتهای جهانی برنامهها

Case scenario 1

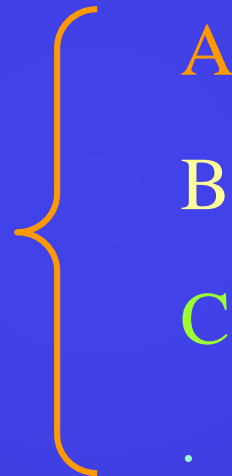
A 50 year old male was admitted to hospital with severe anorexia, extreme pallor and generalized oedema. He was a diagnosed patient as having focal glomerular sclerosis 2 years ago and Insulin dependent diabetes mellitus for the last 25 years with very poor control.

Case scenario 1

Furthermore, this patient was a heavy cigarette smoker for the past 10 year duration. On further assessment at the hospital a diagnosis of end-stage renal failure was made and the patient expired one week following admission to the hospital.

PART : I

PART : II



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Case scenario 1

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death

Approximate interval between onset and death

I

Disease or condition directly leading to death*

(a) **End-stage renal failure**

1 week

due to (or as a consequence of)

Antecedent causes

Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last

(b) **Focal glomerular sclerosis**

2 years

due to (or as a consequence of)

(c) **Insulin Dependent Diabetes Mellitus**

25 years

due to (or as a consequence of)

(d)

II

Other significant conditions contributing to the death, but not related to the disease or condition causing it

Cigarette smoker

10 years

**This does not mean the mode of dying, e.g. heart failure, respiratory failure. It means the disease, injury, or complication that caused death.*

Case scenario 2

A 54 year old male who is on regular medication for coronary arteriosclerosis for the last 5 years was rushed to the emergency with a history of severe tightening chest pain, sweating and dyspnoea.

Case scenario 2

He collapsed in the emergency department and despite immediate resuscitation the patient expired. ECG findings confirmed an acute myocardial infarction. He was suffering from emphysema for the last 20 years and was an alcohol addict for the past 25 years.

PART : I

PART : II



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Case scenario 2

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death		Approximate interval between onset and death
I Disease or condition directly leading to death*	(a) Acute myocardial infarction due to (or as a consequence of)	Minutes
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(b) Coronary arteriosclerosis due to (or as a consequence of)	5 years
	(c) due to (or as a consequence of)
	(d)
II Other significant conditions contributing to the death, but not related to the disease or condition causing it	Emphysema Alcohol addiction	20 years 25 years

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Case scenario 3

A 34-year-old male was admitted to the hospital with severe shortness of breath. He had a 9-month history of unintentional weight loss, night sweats, and diarrhoea. The patient had no history of any medical condition that would cause immunodeficiency.

Case scenario 3

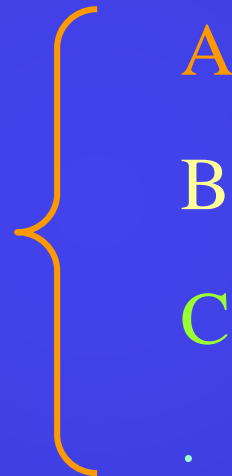
An Elisa test and confirmatory Western Blot test for Human Immunodeficiency Virus (HIV) were positive. Further, investigations revealed that he is having Pneumocystis Carinii Pneumonia (PCP), indicating a diagnosis of Acquired Immune Deficiency Syndrome (AIDS).

Case scenario 3

The patient's pneumonia responded to appropriate therapy, and the patient was discharged. The patient had two additional admissions for PCP. One and a half years after the patient was first discovered to be HIV positive, he again developed PCP but did not respond to therapy. He died 2 weeks later.

PART : I

PART : II



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Case scenario 3

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death		Approximate interval between onset and death
I Disease or condition directly leading to death* Antecedent causes Morbidity conditions, if any, giving rise to the above cause, stating the underlying condition last	(a) Pneumocystis Carinii Pneumonia	2 Weeks
	due to (or as a consequence of)	
	(b) Acquired immunodeficiency syndrome	1.5 Years
	due to (or as a consequence of)	
	(c) Human Immunodeficiency Virus Infection	2 Years
	due to (or as a consequence of)	
	(d)
<hr/> II Other significant conditions contributing to the death, but not related to the disease or condition causing it		
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Case scenario 4

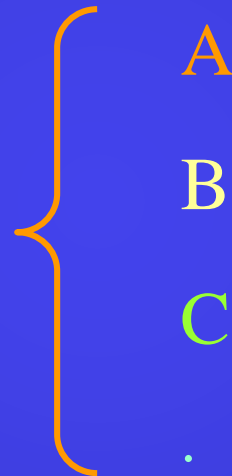
An 8 year old boy was admitted with symptoms of high fever, nausea and vomiting for 2 days. He was diagnosed with Dengue Haemorrhagic Fever and was treated with intravenous fluid and supportive treatment.

Case scenario 4

Three days after admission, he had severe dyspnoea with diagnosis of pulmonary oedema and was treated by antidiuretics and respiratory support using a ventilator. On the next day, his respiratory function deteriorated with diagnosis of respiratory distress syndrome. He died on the 5th day of admission.

PART : I

PART : II



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Case scenario 4

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death		Approximate interval between onset and death
I Disease or condition directly leading to death*	(a) Respiratory Distress Syndrome	1 day
	due to (or as a consequence of)	
Antecedent causes Morbidity conditions, if any, giving rise to the above cause, stating the underlying condition last	(b) Pulmonary edema	2 days
	due to (or as a consequence of)	
	(c) Dengue Hemorrhagic Fever	7 days
	due to (or as a consequence of)	
	(d)
II Other significant conditions contributing to the death, but not related to the disease or condition causing it
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Case scenario 5

A 10 year old boy was taken to hospital with a history of swelling of legs and facial puffiness of one week duration and fever and cough of 3 days. On examination he had severe pallor, oedema with hepatosplenomegaly.

Case scenario 5

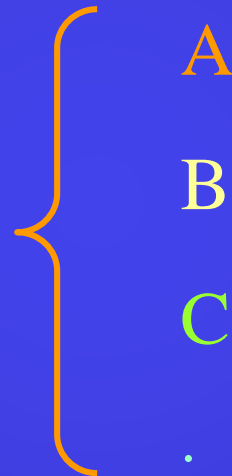
His respiratory rate was 44/min and air entry to the left lobe of lung was diminished. Chest x-ray showed left lower lobe consolidation. Child was a diagnosed case of Thalassaemia for the last 4 years.

Case scenario 5

He was resuscitated in the ward and despite antibiotic cover and blood transfusions his condition deteriorated and died the next day.

PART : I

PART : II



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Case scenario 5

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death

I

Disease or condition directly leading to death*

Antecedent causes

Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last

(a) **Lobar Pneumonia**

due to (or as a consequence of)

(b) **Lower Respiratory Tract Infection**

due to (or as a consequence of)

(c) **Severe Anaemia**

due to (or as a consequence of)

(d) **Thalassaemia**

Approximate interval between onset and death

2 days

3 days

1 week

Since birth

II

Other significant conditions contributing to the death, but not related to the disease or condition causing it

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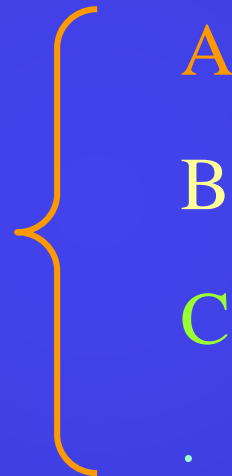
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Case scenario 6

A female aged 54 years admitted to hospital for palliative care due to secondary adenocarcinoma of the liver. The secondary growth occurred one year ago due to the primary adenocarcinoma of the lung diagnosed 3 years before. She was also suffering from ischaemic heart disease for the last 10 years.

PART : I

PART : II



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Case scenario 6

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death		Approximate interval between onset and death
I Disease or condition directly leading to death*	(a) Secondary adenocarcinoma of liver due to (or as a consequence of)	1 year
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(b) Primary adenocarcinoma of lung due to (or as a consequence of)	3 years
	(c) due to (or as a consequence of)
	(d)
II Other significant conditions contributing to the death, but not related to the disease or condition causing it	Ischaemic heart disease	10 years

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Case scenario 7

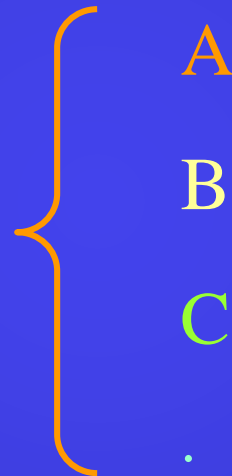
A male aged 54 years admitted to hospital for surgery to remove the colon due to carcinoma of the sigmoid colon. The patient developed a postoperative deep vein thrombosis.

Case scenario 7

A pulmonary embolism later developed and the patient died shortly after. He was diagnosed as having arteriosclerosis and ischaemic heart disease for the last 5 years.

PART : I

PART : II



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Case scenario 7

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death		Approximate interval between onset and death
I Disease or condition directly leading to death*	(a) Pulmonary embolism	1 hour
	due to (or as a consequence of)	
Antecedent causes Morbidity conditions, if any, giving rise to the above cause, stating the underlying condition last	(b) Deep vein thrombosis	3 days
	due to (or as a consequence of)	
	(c) Carcinoma of the sigmoid colon	18 months
	due to (or as a consequence of)	
	(d)
II Other significant conditions contributing to the death, but not related to the disease or condition causing it	Ischaemic heart disease	5 years
	Arteriosclerosis	5 years

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Case scenario 8

A 68-year-old male was admitted with progressive right lower quadrant abdominal pain of several weeks' duration. The patient had lost approximately 40 lb, with progressive weakness and malaise. On examination, the patient had an enlarged liver of four finger breadths.

Case scenario 8

Rectal examination was normal and stool was negative for occult blood. Routine laboratory studies were within normal limits. A chest x-ray and barium enema were negative. ECG showed a RBBB. CT scan showed numerous masses within both lobes of the liver.

Case scenario 8

A needle biopsy of the liver was diagnostic of moderately differentiated hepatocellular carcinoma, and the patient was started on chemotherapy. Three months after the diagnosis, the patient developed sharp diminution of liver function as well as a deep venous thrombosis of his left thigh,

Case scenario 8

and he was admitted to the hospital. On his third day, the patient developed a pulmonary embolism and died 30 minutes later.

PART : I

PART : II



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Case scenario 8

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death		Approximate interval between onset and death
I Disease or condition directly leading to death*	(a) Pulmonary embolism	30 Minutes
	due to (or as a consequence of)	
Antecedent causes Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(b) Deep vein thrombosis of L/thigh	3 Days
	due to (or as a consequence of)	
	(c) Acute hepatic failure	3 Days
	due to (or as a consequence of)	
	(d) Moderately differentiated hepatocellular carcinoma	3 Months
II Other significant conditions contributing to the death, but not related to the disease or condition causing it

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Case scenario 9

A 78-year-old female with a temperature of 102.6°F was admitted to the hospital from a nursing home. She first became a resident of the nursing home 2 years earlier following a cerebrovascular accident, which left her with a residual left hemiparesis.

Case scenario 9

Over the next year, she became increasingly dependent on others to help with her activities of daily living, eventually requiring an in-dwelling bladder catheter 6 months before the current admission. For the 3 days prior to admission, she was noted to have lost her appetite and to have become increasingly withdrawn.

Case scenario 9

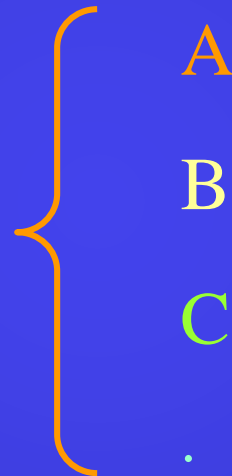
On admission to the hospital her leukocyte count was 19,700, she had pyuria, and gram-negative rods were seen on a gram stain of urine. Ampicillin and gentamicin were administered intravenously. On the third hospital day, admission blood cultures turned positive for *Pseudomonas aeruginosa*, which was

Case scenario 9

was resistant to ampicillin and gentamicin. Antibiotic therapy was changed to ticarcillin clavulanate, to which the organism was sensitive. Despite the antibiotics and intravenous fluid support, the patient's fever persisted. On the fourth hospital day, she became hypotensive and died.

PART : I

PART : II



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Case scenario 9

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death

Approximate interval between onset and death

I

Disease or condition directly leading to death*

(a) . . . *Pseudomonas aeruginosa sepsis* . . .
due to (or as a consequence of)

Days

Antecedent causes

Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last

(b) . . . *Pseudomonas aeruginosa urinary tract infection* . . .
due to (or as a consequence of)

Days

(c) . . . *In-dwelling bladder catheter* . . .
due to (or as a consequence of)

6 months

(d) . . . *Left hemiparesis due to old cerebrovascular accident* . . .

2 years

II

Other significant conditions contributing to the death, but not related to the disease or condition causing it

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Case scenario 10

A 75-year-old male had a 10-year history of chronic bronchitis associated with smoking two packs of cigarettes a day for more than 40 years. When seen by his physician approximately 2 years prior to his terminal episode, he had moderately reduced FEV¹ and FVC with no response to bronchodilators.

Case scenario 10

During his last year, he required corticosteroids to prevent wheezing and coughing at night; however, he was unable to reduce his smoking to less than one pack of cigarettes per day. When seen 3 months prior to his terminal episode, he had significantly reduced FEV¹ and FVC with no response to bronchodilators.

Case scenario 10

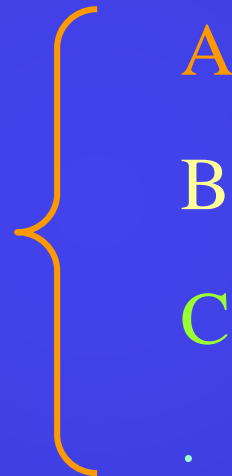
He awoke one evening complaining to his wife about coughing and worsening shortness of breath. He was taken to the emergency room where he was found to have an acute exacerbation of obstructive airway disease. He was admitted to the hospital.

Case scenario 10

At the patient's request, no mechanical ventilation was employed, and he died 12 hours later in respiratory arrest.

PART : I

PART : II



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Case scenario 10

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

Cause of death

Approximate interval between onset and death

I

Disease or condition directly leading to death*

(a) Acute exacerbation of obstructive
airways disease

12 hours

due to (or as a consequence of)

(b) Chronic bronchitis

10 years

due to (or as a consequence of)

(c)

due to (or as a consequence of)

(d)

Antecedent causes

Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last

II

Other significant conditions contributing to the death, but not related to the disease or condition causing it

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**This does not mean the mode of dying, e.g. heart failure, respiratory failure. It means the disease, injury, or complication that caused death.*



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