

# Sudden (Unexpected) Natural Death

## Definition:

- (WHO) defines sudden death as a death occurring within 24 hours of the onset of symptoms. Deaths in which an adequate diagnosis of a lethal medical disease has not been reached before death, regardless of the duration of the illness.
- Unexpected deaths may occur in previously healthy individuals and in those with known natural disease when the severity of the person's condition does not explain death (physician does not feel the medical problems would have likely resulted in death).
- Thorough autopsy to exclude violence or poisoning.
- Sudden, unexpected deaths can occur in all age groups. The individual's age, personal medical history, and family history can provide valuable information in developing a differential diagnosis and in directing autopsy. Across all age groups, cardiac-related diseases play a significant role in both sudden and unexpected death.

# Causes

## 1- CVS

- A- Coronary atherosclerosis: leading to occlusion of one of the main branches by thrombus or embolus
- B- Hypertensive heart disease: leading to hypertrophy and L.V.F
- C- Aortic valve disease: Idiopathic calcific aortic stenosis
- D- Myocardial disease:
  - Cardiomyopathic enlargement
  - Myocarditis: Diphtheria, Influenza
  - Myocardial infarction :occlusion of C.A. by ( polyarteritis, embolism, severe aortic stenosis, congenital anomalies of C.A. and great vessels, dissecting aortic aneurysm )
  - Cardiac tamponade

## 2- Respiratory system

- A- pulmonary embolism
- B- Haemoptysis due to T.B. or bronchial carcinoma
- C- laryngeal Oedema
- D- Acute respiratory infection (Pneumonia and Bronchitis)
- E- Inhalation of gastric content or Foreign body
- F- Bronchial asthma

### **3- CNS**

- A- Thrombotic cerebral infarction, subarachnoid or intracerebral hge.**
- B- Severe CNS infections**
- C- Brain neoplasm**
- D- Epilepsy even without being in status epilepticus**

### **4- GIT**

- A- Severe he. Due to peptic ulcer or oesophageal varices**
- B- Fulminant hepatitis**
- C- Acute haemorrhagic pancreatitis**
- D- Acute cholangitis**
- E- Acute abdomen due to appendicitis, rupture peptic ulcer, peritonitis, intestinal obstruction**

### **5- Endocrine causes:**

- A- D.M. : hypoglycaemia, ketoacidosis**
- B- Unrecognized thyroid disease**
- C- Acute hypopituitarism with acute adrenal insufficiency**

## **6- Obstetric and gynaecological causes:**

- A- Ruptured ectopic gestation**
- B- Torsion ovarian cyst**
- C- Uraemia and Eclampsia**
- D- Amniotic fluid embolism**
- E- Ante- and post-partum haemorrhage.**

## **7- Other causes**

- A- Systemic infection**
- B- Disseminated intravascular coagulation (DIC)**
- C- Acute haemorrhagic crisis**
- D- Unexplained causes of death (negative autopsy)**