

The Medical Examiner

When to Report and Help With Death Certificates

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ABSTRACT: *Medical examiners perform autopsies on victims of criminal violence and such deaths must be reported to the medical examiner. Because few medical personnel are cognizant of the full extent of the types of deaths which must be reported and of the substantial noncriminal aspects of medical examiner services, this description of the Florida Medical Examiner System emphasizes these areas and deaths due to late sequelae of violence.*

Proper death certification is one aspect of medical practice in which most physicians receive absolutely no training; therefore the essential elements are briefly outlined.

Having abolished the archaic office of coroner and removed death investigations from the purview of peace justices, Florida has had a district medical examiner system for over 20 years. The 24 districts roughly correspond to the judicial circuits and, therefore, vary from multiple to single county in configuration. In all districts except the home-rule counties of Dade, Hillsborough and Palm Beach, the medical examiner is appointed by the governor. The district medical examiner must be a pathologist and may appoint associate medical examiners. While the operational policies of the districts vary, the underlying purpose of each is defined by statute.¹

AUTHORITY AND MISSION—Every state lawfully provides for examination of the dead in cases of public interest. Public interest usually encompasses unexpected deaths, deaths in custody, due to violence and under unusual circumstances. The Florida Medical Examiners Act and the Florida Administrative Code provide the basis for these examinations with some discretion allowed on the part of the individual district examiner.^{2,3}

District medical examiners are responsible for determining the cause of death in cases of public interest. Medical examiner jurisdiction is much broader than police jurisdiction in death investigations. By requiring parties with information to share it with the medical examiner, the Medical Examiners Act effectively gives him or her the power to acquire copies of medical records without subpoena. The Act gives the medical examiner authority to perform autopsies without permission of next of kin, (thereby temporarily suspending the common-law right of the kin to claim the body for burial), to prevent disturbance of a dead body, and compels law enforcement officers to establish liaison with the medical examiner.⁴

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The investigation of public deaths involves more than performance of autopsies. In cases of violent death in which the body has not been removed, medical examiners or forensic investigators employed by medical examiners may directly study and document the physical findings and circumstances at the scene. Telephonic and personal interviews are often conducted with family, friends of the deceased, physicians and staff of hospitals and nursing homes to gather pertinent information for cause-of-death determinations and to obtain radiographs for definitive identification of the remains.

Duty to report • The state has a compelling interest in ensuring that death investigations by medical examiners are conducted in all cases except those unequivocally due to natural causes and attended by a physician. Medical Examiners depend upon others to report deaths that occur in their jurisdiction and the law mandates reporting as a duty. Obviously, deaths involving criminal circumstances and which occur soon after injury must be reported. However, deaths involving criminal agency constitute only a minority of investigations. Reportable hospital deaths also occur under less obvious circumstances and attending physicians most knowledgeable about them are in the best position to report. The responsibility for reporting is often left to nurses, physician assistants or admitting clerks. When the physician and paramedical staff abdicate responsibility, the funeral director sometimes realizes that jurisdiction exists when the circumstances are made known at the time the death certificate is presented to the physician for signature, or when the family meets with the funeral director to make final arrangements. Unfortunately many physicians do not report the deaths of patients, leaving this task to others. When a reportable death is ignored, the medical examiner must investigate after the body has been buried and usually without benefit of an autopsy. Even when a death occurs in a hospital after a thorough workup, diagnosis and treatment, and the medical examiner is satisfied that, without an autopsy, he or she can reach an opinion by inquiry alone, the state attorney may have problems prosecuting a criminal death case without an autopsy. Juries attach much less credibility to the opinion of the medical examiner when there has been no autopsy.

Deaths that should be reported usually include those which are sudden and unexpected, deaths in custody, deaths due to violence, and deaths under unusual circumstances.

SUDDEN UNEXPECTED DEATHS WHILE IN APPARENT GOOD HEALTH—Suddenness alone does not make a death reportable, inasmuch as many persons with documented heart disease experience sudden death. It is the absence of a clinically diagnosed, potentially fatal disease. In other words, the unexpectedness

of the death, not its rapidity, brings public interest to the death.

“Attended” does not mean that the physician was at the bedside but simply under his or her active care. For purposes of certification, doctors of medicine and of osteopathy are considered recognized practitioners; chiropractors, podiatrists and dentists are not.⁵ Although the Vital Statistics Act defines an unattended death as “a death occurring more than 30 days after the decedent was last treated by a physician, except where death was medically expected,” the Medical Examiners Act leaves the word “unattended” undefined, leaving some flexibility and room for consideration of individual circumstances.⁶ From the medical examiner’s viewpoint, death of a person with documented coronary artery disease, 60 days after the last visit to his or her physician, would be considered attended and not accepted under jurisdiction, if the circumstances and scene investigation by the law enforcement personnel were unremarkable. On the other hand, death at home of a person discharged from the hospital two days previously, after successful surgical treatment of cholelithiasis, might be considered unattended.

DEATHS IN CUSTODY—The requirement to report these deaths applies not only to the subject who dies restrained in the back of a police cruiser but also to the individual with documented heart disease who fibrillates in the emergency room while having blood drawn for a drunk driving arrest.

All inmate deaths must be reported and their bodies autopsied. The deaths need not involve any question of violence; the requirement applies equally to inmates and prisoners with natural disease who are hospitalized for months with acquired immune deficiency syndrome. Persons on probation in the community are not considered to be in police custody for the purposes of the Medical Examiner Act.

DEATHS DUE TO VIOLENCE—Accidental deaths as a category include not only mechanical but chemical, e.g., drug, baro- and electrical trauma. Failure to report usually occurs when the incident is separated from death by weeks, months or years. This category includes both immediate and delayed traffic fatalities, industrial accidents, falls at home, choking on food, and the ubiquitous fracture of the femoral neck. “Hip fractures” are the most underreported category of death. In the chain of medical events leading to deaths in patients with femoral neck fractures the fracture is most often the contributory rather than the primary cause of death. Thus, many physicians erroneously believe such deaths to be natural rather than accidental. This error can be avoided by recalling that a natural death is one caused exclusively by disease.

Suicides must be reported to the medical examiner. Again the most frequent reason for nonreferral is failure on the part of the attending physician to

appreciate the cause-and-effect linkage between the injury and the subsequent death. All medical examiners in Florida take referrals on such deaths and most will autopsy the bodies of persons who linger for weeks with hypoxic encephalopathy, long after their ingested drugs have been metabolized. Although these autopsies generally yield no surprises, that very fact helps to prevent charges that lack of proper medical care contributed to death and lends a considerable degree of credibility to the medical examiner's cause-of-death opinion.

No physician has any doubt that the patient who presents in the emergency room with knife or bullet wounds and dies within a few hours becomes the subject of a medical examiner investigation. Included among deaths from criminal violence are the obvious homicides as well as pedestrians and bicyclists struck by motorists who flee the scene. Less well-known is the fact that there is no statute of limitations on medical examiner investigations. If a person dies of vegetative or septic complications of an injury inflicted 20 years prior, the death must still be referred. This is true not only in this category but with all the categories described in this article.

DEATHS UNDER UNUSUAL CIRCUMSTANCES—The death at home of a man with known heart disease under the active care of a physician would not ordinarily be considered suspicious. His death in a hotel room in the city of his residence, when his wife does not know of a reason for him to be in the hotel, would be considered suspicious and reportable to the medical examiner. The words "suspicious" and "unusual" can be interpreted liberally to include almost any circumstance that seems notorious, uncomfortable or peculiar. For example, the existence of a life insurance policy on a child could be considered an unusual circumstance.

OTHER DEATHS UNDER MEDICAL EXAMINER JURISDICTION—The death of a person with an apparent infectious disease which has not been diagnosed to the level of etiologic specificity and which the physician suspects might be a communicable disease of interest to the health department is reportable. An example would be meningitis or encephalitis, with death occurring before identification of the infecting organism.

Occupational trauma must be reported, as must natural deaths due to diseases arising from occupational exposure to chemicals or physical agents such as asbestos or coal dust which result in death due to natural diseases such as mesothelioma, pulmonary fibrosis and asbestosis. Deaths caused by delayed sequelae or war injuries are considered occupational with respect to medical examiner jurisdiction.

CREMATION, ANATOMIC DONATION, BURIAL-AT-SEA, AND SHIPMENT OUT-OF-STATE—The Medical Examiners Act requires funeral directors to report to the medical examiner any body that is to be cremated,

buried at sea, or donated for anatomic dissection. Local ordinance in Hillsborough County requires funeral directors to report bodies to be shipped out of state.⁷ The purpose of these laws is to prevent the destructive disposition of bodies which ought to have been but were not previously reported to the medical examiner. These deaths are customarily reported by the funeral directors. Physicians may receive telephone inquiries because of this reporting requirement, particularly if the cause of death opinion is incomplete.

CATEGORIES OF DEATHS NOT SPECIFICALLY MENTIONED IN THE MEDICAL EXAMINERS ACT—By design, therapeutic misadventures are not mentioned in Chapter 406. The intent is not to keep all such cases out of the medical examiner's office, but to recognize that hospitals have tissue committees and staff privilege rules which address the issue of competence. Should a practitioner, nurse or physician report to the medical examiner a death caused by a therapeutic act, jurisdiction can usually be found under the umbrella of "accidental." However, such cases are not required to be reported per se. The degree to which the death is unexpected provides a reasonable guideline. Death during open heart surgery is not unexpected; it is a reasonably expected risk. Death during anesthesia for an inguinal herniorrhaphy in a young adult would be unexpected and, therefore, reportable.

Deaths in moving conveyances are not mentioned in the Medical Examiner Act, but it is customary and prudent to refer them to the medical examiner, including those which appear to be natural. Because questions of injury or carbon monoxide poisoning can arise later, autopsies are useful in these instances, even when there is a history of potentially lethal disease and the physical examination reveals no trauma.

Caveats • Physicians are requested not to approach the family first for autopsy permission, be denied and then report the death to the medical examiner. The very act of asking permission conveys to family members that they have a right to decide whether an autopsy will be conducted. If subsequently performed pursuant to statute, the family members often feel that something illegal or underhanded has occurred. Call the medical examiner first.

The phrase, "physician willing to sign death certificate," does not appear in Chapter 406. The fact that a practitioner is willing to sign a certificate does not make his erstwhile patient immune from neglect, homicide or accident and does not preclude referral of the death to the medical examiner.

There is no 24 hour rule. Deaths occurring within 24 hours of admission to an emergency room can be caused by longstanding previously diagnosed dis-

CAUSE OF DEATH BY CERTIFIER	26 PART I Enter the diseases, injuries, or complications that caused the death. Do not enter only the mode of dying, such as cardiac or respiratory arrest, shock, or heart failure. List only one cause on each line.		
	IMMEDIATE CAUSE (Final disease or condition resulting in death) →		
	a	DUE TO (OR AS A CONSEQUENCE OF):	
	b	DUE TO (OR AS A CONSEQUENCE OF):	
	c	DUE TO (OR AS A CONSEQUENCE OF):	
	d		
	PART II Other significant conditions contributing to death but not resulting in the underlying cause given in Part I		27a WAS AN AUTOPSY PERFORMED? (Yes or No)
			27b WERE AUTOPSY FINDINGS USED TO COMPLETE CAUSE OF DEATH? (Yes or No)

Fig.1.—HRS Form 512, the Florida Death Certificate, showing physician's section.

ease known to be potentially fatal. Contrariwise, as indicated previously, many deaths of public interest occur months or years after the initial hospital admission. The physician does not have to be certain that trauma played a role before referring a death to the medical examiner. If there is any question, the case should be discussed with the medical examiner on duty.

PENALTIES FOR FAILING TO REPORT AND FOR NOT PROVIDING INFORMATION TO THE MEDICAL EXAMINER—“Persons who knowingly fail or refuse to report a death, or who refuse to make available prior medical history or other information pertinent to the death investigation, shall be guilty of a misdemeanor of the first degree.”⁸ Physicians and hospitals routinely cooperate with medical examiner inquiries in the knowledge that confidentiality statutes do not apply to the dead and are subordinate to the Medical Examiner Act.

In addition to assuming the risk of potential criminal penalties, physicians who fail to report may place their medical licenses at risk and incur costs. Should a body be buried or subject to destructive disposition because of failure to report, the public prosecutor may investigate the failure as a possible violation of the Medical Examiners Act. This violation must be reported to the Department of Business and Professional Regulation which will investigate the incident as a violation of the Medical Practice Act.⁹ In addition, should a body have to be disinterred for medicolegal autopsy after burial as a result of the physician's failure to report the death to the medical examiner, one of two options is likely. The court will be petitioned to assign exhumation costs to that physician or the funeral director will sue for the cost of

disinterring the body or returning it from out of state.

Death certification • Death certificates exist primarily to provide public documentation of the change in civil status from live to dead.¹⁰

Modern death certificates offer a medical cause of death. Most consumers of death certificate are interested only in the fact that death did indeed occur. In contrast, life insurance companies are interested in individual causes of death. Trackers of epidemiological trends are interested in statistical compilations of the medical causes of death of populations. When the physician fills out a death certificate, he is acting as a de facto agent of the vital records bureau and should enter a statistically useful underlying cause of death. Statisticians do not need a story and especially do not want terminal complications recorded. For example, a patient has carcinoma of the lung with metastases to adrenal glands, liver, regional lymph nodes and brain. The brain metastases cause cerebral edema and herniation and a secondary hemorrhagic infarct in the distribution of the posterior cerebral artery, followed by resolution of the edema and a persistent vegetative state. After two weeks, bronchopneumonia ensues and results in death. The shortest and simplest correct entry for the death certificate is “carcinoma of lung.”

When the physician completes the cause-of-death statement on the certificate, he attests that to the best of his knowledge death resulted from the cause or causes stated. The portion of the certificate reserved for medical opinion of the cause of death has two parts. Part I has space for immediate and intermediate causes of death and for one underlying

Table 1.—List of Terminal Sequelae Which Cannot Stand Alone on a Death Certificate.

Aspiration
 Bronchopneumonia
 Cardiogenic shock
 Cardiac arrhythmia
 Cardiac dysrhythmia
 Cardiorespiratory arrest
 Cardiac failure
 Congestive heart failure (CHF)
 Encephalopathy
 Gastrointestinal hemorrhage
 Hemorrhage
 Hemorrhagic shock
 Hepatic failure
 Intracranial hemorrhage
 Liver failure
 Metabolic acidosis
 Multisystem failure
 Paraplegia
 Pneumonia
 Pneumocystis pneumonia
 Pulmonary embolus
 Pulmonary thromboembolism
 Quadriplegia
 Ruptured viscus
 Renal failure, acute or chronic
 Respiratory failure
 Respiratory arrest
 Sepsis
 Septic shock
 Shock

cause of death. An example would be “pulmonary thromboembolism due to deep vein thrombosis due to carcinoma of the prostate.” It is not necessary to use each of the four spaces in Part I. The essential information is the underlying cause. Part II can list any number of contributory causes of death which are unrelated to the primary cause, but should be used sparingly and not as a repository for medical curiosities. For instance, if Part I lists “myocardial infarction due to arteriosclerotic heart disease,” Part II should not list congestive heart failure, but would be a logical place to list diabetes mellitus (Fig. 1).

Many clinicians incorrectly use the term “cause of death” to refer to terminal physiological derangements. With few exceptions, terminal physiological derangements should not be entered on the death certificate. At first glance “cardiorespiratory arrest” looks like a solid reason to die but such a declaration does not distinguish one death from any other. “Cardiorespiratory arrest” is not a cause of death because it is not a disease or an injury. The phrase indicates only that the legal requirements for becoming dead have been met. Similarly, “sepsis” without an underlying etiologically specific infection is incomplete and will be rejected by the vital statistics registrar. “Sepsis due to decubitus ulcers due to cerebrovascular disease” would be complete. Because “sepsis” or “cardiorespiratory arrest” may each be due to disease or injury, such designations

will raise questions unless supported by an underlying disease. Likewise, “congestive heart failure” can be a mechanism of death deriving from any of several cardiac diseases but is not by itself a proximate cause of death and must be supported by listing an underlying disease. It is acceptable to use qualifying words such as “probable” or “presumed” if the situation warrants, for example, “probable acute myocardial infarction” due to “presumed arteriosclerotic heart disease” in a patient who presents with classic symptoms and electrocardiographic changes. Likewise, “upper gastrointestinal hemorrhage” due to “undetermined natural causes” or “probable peptic ulcer disease” are acceptable in the proper clinical context. Table 1 is a list of physiologic derangements which, if unsupported by an underlying disease, will be rejected by the Vital Statistics Office.

The statistical codes in the International Classification of Diseases for certification of cancer deaths require only an anatomic site and words indicating a malignant tumor. Use of “metastases” or “metastatic” tends to confuse the nosologists who sort out causes of death and perform statistical compilations. For example, “metastatic lung carcinoma” is apt to be coded as “malignant tumor, primary site undetermined, with metastases to lung.” In this case, it is best to simply write “carcinoma of the lung” on the death certificate and omit the details.

MANNER OF DEATH—Physicians other than medical examiners should certify only natural deaths, except as noted below. All other deaths must be referred to the medical examiner. If mechanical, electrical, baro- or chemical trauma plays even a minor role in the train of events leading to death, the manner cannot, by the rules of the World Health Organization, be natural.¹¹ Thus, an elderly person with controlled congestive heart failure due to arteriosclerotic heart disease who falls and sustains a fracture of the femoral neck and whose heart failure is thereby exacerbated to the point of death, has died an accidental death for the purposes of death certification. This death should be reported to the medical examiner. There is no statute of limitations on causes of death. As long as there is a direct cause-and-effect linkage, the train of medical events culminating in death can be of any duration. A person who dies of urosepsis as a result of complications of paralysis as a result of a traumatic fracture-dislocation of the cervical spine sustained in a motor vehicle collision decades before death has died an accidental death. In such a situation, the underlying cause of death is the fracture-dislocation of the neck.

Another example of cause-and-effect linkage in an accidental death would be a 90-year-old woman who ingested lye at age two, developed esophageal strictures and eventually developed and died of carcinoma of the esophagus. Since carcinoma of the

esophagus is a well-established sequel of lye ingestion and subsequent stricture formation in the esophagus, the immediate cause of death is carcinoma of the esophagus, the underlying cause is corrosive chemical esophagitis, and the manner of death is accidental. This type of death must be reported to the medical examiner.

In some districts, attending physicians are permitted to sign accidental death certificates for patients with fractures of the femoral neck who fall at home, but only after consultation with the medical examiner.

FETAL DEATH CERTIFICATES—Fetal death certificates differ from ordinary death certificates in two respects. First, there is a qualifying age. The fetus must, in the opinion of the certifier, be at least 20 gestational weeks old. For purposes of disposition, fetuses less than 20 weeks gestation are considered specimens and exempt from statutes and rules governing human remains.¹² Second, on a fetal death certificate there is no provision to indicate the manner of death. One cannot indicate that the death was a homicide, accident or natural death. The reason for this is that legally fetuses have not been born and thus cannot be killed in the same legal sense as a live-born person. There is no probate for a fetus. The only users of fetal death certificates are public health officials.

Conclusion • Medical examiner jurisdiction covers all deaths caused by violence and medicine need not be criminal. The jurisdiction has no statute of limitations; it exists no matter how long the patient survives the injury. Physicians should consult the medical examiner whenever there is the slightest possibility that the death of a patient might be of public interest or the wording of a death certificate needs explanation. Failure to report can put physicians' licenses and assets at risk.

References

1. Chapter 406, Florida Statutes.
 2. Section 406.11, Florida Statutes.
 3. Section 11G.2.003, Florida Administrative Code.
 4. Section 406.14, Florida Statutes.
 5. Section 382.002, Florida Statutes.
 6. Section 406.11 Florida Statutes.
 7. Hillsborough County Ordinance 93-21.
 8. Section 406.12, Florida Statutes.
 9. Section 458.331, para (1)(g), Florida Statutes.
 10. Adams, V.A. and Hirsch, C.S.: Trauma and Disease, Chapter in Spitz, ed., *Medicolegal Investigation of Death*, C.C. Thomas, Springfield, Ill., 1993.
 11. Ibid.
 12. Section 382.002, Florida Statutes.
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