National Association of Medical Examiners Position Paper: Recommendations for the Definition, Investigation, Postmortem Examination, and Reporting of Deaths in Custody.

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ABSTRACT: The National Association of Medical Examiners commissioned an ad hoc committee to provide recommendations for the investigation, examination, and reporting of deaths in custody. Deaths in custody, whether occuring in jail/prison or during an altercation with law enforcement, is a complex issue and requires the forensic pathologist to be knowledgable and deliberative about his/her diagnosis. This paper provides recommendations for the forensic pathologist as it relates to: 1) categorization of deaths in custody, 2) critical information required during investigation, 3) enhanced autopsy procedures, 4) guidance on death certification, 5) parameters for statistical reporting, and 6) release of information to the public. A uniform approach by medical examiners and coroners to the investigation and evaluation of deaths in custody is critical. The establishment of recommendations has the potential to ensure consistency and reliability to the definition, investigation, and certification of these cases. Such uniformity and consistency will instill confidence in the medical examiner/forensic pathologist/coroner's independence by the criminal justice system, the public health system and the community at large.

INTRODUCTION

"Deaths in custody" refers to those deaths in which the circumstances of the death place the decedent in either direct or indirect contact with law enforcement such as incarceration, apprehension and pursuit. Other terms in the literature for deaths in custody include, but are not limited to, police shootings, arrest-related deaths, apprehension deaths, legal intervention deaths and in-custody deaths[1, 2, and 3]. "Deaths in custody" will be the preferred term used throughout this paper to define and catergorize these types of deaths. Whether occuring in jail/prison or during an altercation with law enforcement, deaths in custody is a complex issue and requires the forensic pathologist to be knowledgeable about the preferred death investigation and autopsy procedures intended to aid in arriving at the cause and manner of death. Deaths resulting from law enforcement engaging in physical contact with the decedent in an attempt to restrain or subdue the individual while making an arrest and those deaths arising in jail and prison are the more common examples of deaths in custody. Circumstances in which a decedent steals a motor

vehicle, drives erratically while being pursued by police and then strikes a fixed object resulting in death are still considered a death in custody, as the death happened during the commission of a crime and an active police pursuit. Suicides of barricaded individuals are less often recognized as deaths in custody but offer another subset of circumstances that should be considered within this category.

The forensic pathologist/medical examiner or coroner will almost certainly be called to investigate a death in custody during his/her career. Recently, these deaths have received widespread media coverage which has resulted in strong public, media and professional commentary and, in some cases, the need for social reform. Given the recent interest of this topic by the media and public at large, deaths in custody have the potential to be publically scrutinized not just for how law enforcement handled the situation but also for how the case was managed by the medical examiner/forensic pathologist or coroner. For these reasons, a consistent approach by medical examiners and coroners to the investigation and evaluation of deaths in custody is critical.

The National Association of Medical Examiners (NAME) commissioned an ad hoc committee to provide recommendations for the investigation, examination, and reporting of deaths in custody. This paper provides recommendations for the medical examiner/forensic pathologist or coroner as it relates to: 1) categorization of deaths in custody, 2) critical information required during investigation, 3) enhanced autopsy procedures, 4) guidance on death certification, 5) parameters for statistical reporting and 6) release of information. The establishment of these standards has the potential to ensure consistency and reliability to the definition, investigation, and certification of these cases. Such reliability and consistency will instill confidence in the medical examiner/forensic pathologist/coroner's independence by the criminal justice system, public health authorities, and the community at large.

DISCUSSION

DEFINITION

According to the Death in Custody Reporting Act of 2013 (H.R. 1447)[4], the States are encouraged to report to the Attorney General information regarding "the death of any person who is detained, under arrest, or is in the process of being arrested, is en route to be incarcerated, or is incarcerated at a municipal or county jail, State prison, State run boot camp prison, boot camp prison that is contracted out by the State, any State or local contract facility, or other local or State correctional facility (including any juvenile facility)". Results from a survey sent out by the ad hoc committee to the NAME listserv showed unanimous agreement amongst the 149 respondents that medical examiners and coroners should investigate all deaths that occur from the time of physical arrest (apprehension) through to the time spent in jail and prison. However, under other circumstances there was less agreement on which cases should be investigated as deaths in custody. For example, only 20 percent of those who responded to the survey believed that deaths that occurred within 72 hours of release from custody should be included in this definition. Based on the survey results, we have identified three categories of deaths that the majority of respondents agreed should be investigated under the broader heading of deaths in custody: pre-custody (pre-arrest), in-custody (physical arrest through incarceration), and judicial executions. It is important to note that there may be overlap to these phases and these definitions are only to act as a guide to understand the complexities of these types of deaths.

Pre-Custody: From a legal standpoint, a person may consider himself/herself to be "in custody" if there is a perceived restraint on his/her freedom of movement[37]. This could occur during a casual street corner encounter with law enforcement, or during a police chase (either by foot or by motor vehicle), or when someone is detained for questioning in order to establish probable cause for arrest. It can also occur during a standoff with law enforcement where they are engaged verbally, but not yet physically (e.g. barricade situations). Approximately 66% of survey participants agreed that those deaths which occur in the presence of law enforcement should be investigated as deaths in custody. The pre-custody category includes all deaths that occur prior to the physical restraint associated with arrest (i.e. apprehension). Officer-involved shootings, as well as deaths associated with the use of non-lethal force such as pepper spray or electronic control devices clearly fall into this category.

In-Custody: This category includes all deaths that occur in actual police custody, corrections custody (both pretrial and sentenced), and when the individual is in legal custody, but not in custody of a correctional agency. In other words, death that occurs between the time an individual comes into actual physical contact with law enforcement and the time he/she is released from jail or prison. Deaths that occur in this category can be divided into five subcategories: Arrest, Transport, Booking, Incarceration, and Health Care. A death that takes place during a physical struggle to apprehend an individual is an example of an in-custody death occurring during the arrest phase. Deaths that occur while transporting an individual from the scene to a jail or hospital fall into the Transport subcategory of In-Custody deaths. If the individual is under arrest, but transported to the hospital by ambulance, he/she is considered to be in legal custody and any death that occurs under these circumstance should still be investigated under the special protocol outlined in this report. Booking is the time when an individual is transferred from the custody of the arresting officer to that of the correctional agency and is being processed and temporarily housed prior to placement in an assigned jail cell. The Incarceration phase begins at the time an individual is placed behind bars in jail and continues through sentencing and into incarceration in prison.

If an individual is transferred to a hospital while incarcerated, he/she is still considered to be in legal custody. Depending on the length of time the individual is hospitalized and if the individual remains in custody, these deaths may or may not be included in this category. For example, an individual with metastatic carcinoma may actually be released from legal custody and placed on hospice care. This action would then take the death out of the subcategory of Incarceration and allow the death to be handled as a routine natural case. If a person has a cardiac arrest due to injury, restraint or unknown causes and is transferred to the hospital, these cases must be reported to the medical examiner/coroner and should be considered in-custody deaths even if they are released from custody. The underlying reason for the cardiac arrest must be ascertained using forensic medical examination, including but not limited to review of the medical records as well as internal and external examinations.

The authors of this paper recognize the challenges of investigating deaths that occur following release from custody. However, in those cases where it is clear that someone has died outside of custody from injuries acquired while in custody, that those deaths should be investigated in accordance with procedures outlined in this paper and be classified as deaths in custody for statistical purposes.

Judicial Executions: This category only applies to those jurisdictions where judicial executions are legal and where the investigation of the death by the medical examiner or coroner is required or not prohibited by law. The death penalty is legal in 31 states and illegal in 20 states including the District of Columbia[5]. Of the states that allow judicial executions, five currently have a moratorium in place suspending such action. Lethal injection is the primary means of judicial execution in all states where it is allowed; however, fifteen states have options for other means (hanging, firing squad or electrocution) if lethal injection is deemed unconstitutional or if the conviction occurred before a certain date[6]. It is important to note that whether or not the medical examiner or coroner has jurisdiction to investigate and examine judicial executions, these cases still should be defined as deaths in custody.

Proposed Definition:

"Deaths in custody" –

(1) Deaths that occur under the perceived or physical control or restraint of a law enforcement officer, a correctional officer (including a private correctional officer), or an authorized employee or agent of a district juvenile secure facility or youth residential facility, including being:

(A) In pursuit

(B) Under arrest;

(C) In the process of being arrested;

(D) Detained; or

(E) In the process of being detained:

(2) Incarcerated in, committed to, or on work release from a jail or correctional facility (including contract facility) or a psychiatric hospital; or

(3) Committed to a juvenile secure facility

(4) Judicial Executions

INVESTIGATION

Any death that meets the definition as stated above requires an investigation into the facts and circumstances surrounding the death to ensure that the evidence is consistent with the story provided. Investigation into these deaths can also prove to be beneficial for future training, education, and to potentially prevent futures deaths under similar circumstances.

All deaths that occur in the custody of law enforcement, while being pursued by law enforcement, or while detained by law enforcement, must be reported to the medical examiner or coroner immediately. The medical examiner or coroner must establish jurisdiction on deaths in custody for all phases. Neither the scene nor the decedent should be disturbed before the arrival of the agency in charge of death investigation within that jurisdiction. Any deaths in which the decedent remains on scene may require a visit by a medicolegal death investigator and/or a medical examiner/forensic pathologist/coroner. Any death in which the decedent has died as the result of violence and has been transported to a hospital may require a visit to the original scene for purposes of documentation and aiding in the death investigation. A visit to the original scene is strongly encouraged for all deaths that occur in the incarceration phase; the need for a visit is at the discretion and professional judgment of the forensic pathologist who will perform the autopsy and or the physician leadership of the office. When video of the death (body camera [“body cam”], dash camera [“dash cam’], and surveillance from jail/prison/detention center) is available, it should be reviewed by the forensic pathologist.

All death investigations, irrespective of their phase, should include the following information: name; demographics; medical, mental and social history; facts and circumstances surrounding the death. Facts and circumstances surrounding the death should include the following: last date and time seen or known to be alive and by whom; the date, time, and location of where the decedent was found, by whom, and the original position in which he/she was found; and, if transported, the location, date and time death was pronounced and by whom.

For deaths which occur during the booking and incarceration phases of in-custody deaths, include the following information: decedent’s housing status (single cell vs. housed with others); protective custody or general population status; suicide watch (if applicable); whether the decedent was restrained (type of restraints and length of restraining period); the height and weight of the officers with their gear; the positions/locations on the decedent's body where pressure was applied and for how long; information about whether anyone was monitoring breathing and pulse; whether a restraint chair or a spit hood was used (type, length of use, whether the decedent was

supervised while the spit hood was in use); and whether medical treatment was administered while incarcerated.

For deaths which occur during the use of a restraint, a scene investigation should occur as soon as possible not to exceed 24 hours following death. The medicolegal death investigator and whenever possible, the Medical Examiner/Coroner/Forensic pathologist should respond and be present for the scene investigation thus allowing for visualization of the original scene as well as additional documentation. The medicolegal death investigator report must include a narrative describing the circumstances surrounding the death and body examination as described above. The death investigator is encouraged to perform and record a core temperature during the body examination. The investigator report should be made available to the forensic pathologist assigned to the case prior to or soon after the autopsy examination.

Medical records, including any Emergency Medical Service (EMS) run-sheets, should be reviewed for correlation with patient history and circumstances, especially in trauma cases where CT and MRI reports may be available. If possible, these records should be reviewed prior to the autopsy.

AUTOPSY PROCEDURE

These procedures are an exhaustive list and do not necessarily apply to every in custody death; the forensic pathologist should use his/her discretion as to what tests are appropriate for a given case.

After jurisdiction has been established by the medical examiner or coroner and the initial investigation of circumstances is complete, the forensic pathologist should determine what type of physical examination is warranted (i.e. external examination vs. autopsy examination vs. no examination). An autopsy must be performed on all deaths in custody where the death may be deemed unnatural, regardless of phase and time since injury. The purpose is to correlate and/or confirm the reported circumstances, establish the cause of death, verify individual identification, identify potential competing causes of death, document other significant pathologic conditions, and to assess claims of wrongful death, mistreatment or neglect[1,7,8]. Prisoners with known natural disease who are expected to die and are under medical supervision should be investigated as a death in custody and receive an autopsy if appropriate. The public health information obtained from an autopsy on this population who are dying from natural causes may be used to inform programs and create policy dedicated to decrease the morbidity and mortality of the prison

population. The authors of this paper understand the limited resources and the religious and/or cultural objection that may impact the ability to perform autopsy examinations on apparent natural cases in some jurisdictions. Nonetheless, the recommendation would be to have a lower threshold than normal to perform autopsy examinations on deaths in custody when possible.

An external and internal examination of the body should be performed by or directly supervised by an experienced forensic pathologist in accordance with the NAME Forensic Autopsy Performance Standards[9]. The pathologist should be board certified in Anatomic and Forensic Pathology by the American Board of Pathology[10], and should have a valid license to practice medicine. Offices should document the names of the autopsy pathologist(s), autopsy assistant(s), and all other persons present during the autopsy[11].

The pathologist should document any evidence of resuscitation attempts, therapeutic procedures or evidence of organ or tissue procurement that were performed on the decedent prior to or following death. These might include contusions, lacerations or petechial hemorrhages of the oral cavity, pharynx, larynx or trachea from intubation attempts; soft tissue hemorrhage of the neck from line attempts; contusions of the chest or rib fractures from chest compressions; and less commonly liver lacerations and intra-abdominal hemorrhage from CPR (cardiopulmonary resuscitation), or hyoid fractures from intubation attempts.

The external examination of the body should include a description of postmortem changes including the degree of rigor mortis, livor mortis and algor mortis. An inspection of the eyes, oral cavity (i.e., labia, frenula, cheeks and tongue), scalp, facial bones, neck, torso, genitalia, anus, and extremities including the wrists, hands, ankles and feet should be performed[12]. The external examination should include descriptions of the decedent's apparent age, height, weight, sex, nutritional status, body habitus, skin color, scalp and/or facial hair length and color, marks, scars, tattoos, evidence of medical intervention, anatomic anomalies, and injuries[11,12]. All injuries should be described in accordance with the NAME Forensic Autopsy Performance Standards in terms of type, location, size, shape, pattern and color[9]. Descriptions of wounds from projectiles should include the presence or absence of soot, stippling, gunpowder particles, singeing and retained projectiles or projectile fragments; whether the skin defects are entrance or exit wounds; and the path and direction of the wound track. If any projectiles, projectile fragments, weapon fragments or foreign bodies are recovered from the body, they should be described, photographed and retained as evidence. Injuries should be documented by a combination of modalities including narrative description, photographs, and diagrams.

The examination of the head should include the external and deep layers of the scalp with documentation of the number, type, location and size of injuries. A formal face dissection may be necessary in situations where there is concern for facial injuries that cannot be documented on external examination or by radiography[13]. Any fractures of the skull should be documented in terms of location, type (e.g., linear, depressed, comminuted) and dimension[14]. If there are epidural, subdural or subarachnoid hemorrhages, they should be described in terms of location, size (i.e., volume, weight or 3-dimensional measurements), color, effects on the brain (e.g., compression, herniation, mid line shift) and degree of organization[14].

The pathologist should consider performing a layered anterior and posterior neck dissection, if indicated to document the presence or absence of injuries. It is recommended that the neck examination take place after the brain and thoracic organs have been removed to allow the vessels of the neck to drain. It may be prudent to retain the hyoid bone, larynx and cricoid cartilage, especially in cases of hanging or use of choke holds. If chemical agents were used, the forensic pathologist may want to save portions of the airways for possible histologic examination. Any injuries of the mucosal surfaces, soft tissues, cartilaginous structures or bony structures of the neck (including the cervical vertebrae and spinous processes) should be documented.

A procedure known as the anterior and posterior flay dissection should be considered to document the presence or absence of deep tissue injury particularly in cases where history suggests physical contact with law enforcement or others at the time of demise. The flay dissection includes a subcutaneous and layered soft tissue dissection of the anterior and posterior aspects of the torso (including the buttocks) and a subcutaneous dissection of the upper and lower extremities (including the wrists and ankles) to document the presence or absence of occult subcutaneous or deep muscular hemorrhages. Any fractures of the torso or extremities should be documented. Collections of blood or other abnormal fluids in the pleural and peritoneal cavities should be documented and described in terms of volume. The internal organs of the head, neck, chest, abdomen and pelvis (including the testes in male decedents) should be examined for the presence or absence of injury and natural disease[12]. Appropriate specimens should be collected during the autopsy for pertinent ancillary studies (e.g., histology, toxicology, microbiology and/or molecular genetics).

It is important for medical examiner and coroner offices to communicate advanced dissection techniques, such as flay dissection, posterior neck or retention of tissues to their law

enforcement agencies and local funeral homes. If questions or concerns arise from funeral directors, law enforcement or family members of the decedent relating to these advanced dissection techniques, this position paper and protocol may be useful to help them understand why they are necessary.

Photography: Thorough and relevant autopsy photography should be performed to provide a visual record for correlation with the findings in the written report in case the pathologist, other experts (e.g., medical, criminal and legal), and jurors need to review them at a later date[15]. High quality color digital photography is recommended and preferred[16]. All photographic series should include the case number and a measurement scale such as ABFO-type ruler; duplicate views without a case number or with relocation of the case number may be helpful in fully documenting the body, i.e. no injuries behind the placard. The ruler should be placed on the surface of the skin or clothing and the camera should be perpendicular to the area being photographed to maintain proper perspective[15]. The body should be initially photographed to document how the body was received and should include things such as clothing on the body, ligatures around the neck, evidence bags over the hands, evidence of medical intervention, and the presence of hand cuffs, flex cuffs around the wrists or ankles, and ankle bracelet monitors. Any personal property should be photographed, documented and retained as evidence. Some injuries may need to be photographed “as is” or “dirty” to document pertinent information like soot surrounding a gunshot wound. It may be necessary to shave the hair surrounding a wound to adequately document the injury; these injuries should be photographed before and after the hair is shaved[11]. It is recommended that the dorsal and palmar surfaces of the hands be photographed before and after cleaning if they are soiled with blood, dirt or other debris. The body should be adequately cleaned to allow for proper photographic documentation of injuries or absence of injuries.

The body should be photographed from all views including anterior, posterior and lateral surfaces of the torso and extremities; the front of the face (including a passport-style close-up for identification purposes) and bilateral sides of the face; the eyes and conjunctivae; the oral mucosa (including the lips and frenula); the anterior, posterior, and bilateral surfaces of the neck (including an extended anterior view); the dorsal and palmar surfaces of the hands; the wrists and ankles; and the genitals and anus[12,15]. Detailed close-up photographs should be taken of any external injuries with a ruler. Ideally, an American Board of Forensic Odontology (ABFO) type ruler or any measuring device used that meets measurement traceability and calibration requirements of ISO/IEC 17020 should be used with any patterned injuries from things such as batons, hand cuffs, footwear, electronic control devices, or human/canine bite marks[12,15]. Photographs of the internal

examination should include injuries and pertinent negative findings, such as reflected scalp; layered soft tissue plane dissections of the anterior and posterior aspects of the neck and torso; and a subcutaneous dissection of the extremities including the wrists and ankles[12] (if these were part of the autopsy). A list of recommended photographs is provided in Table 1. Attempts should be made to eliminate bloody backgrounds and distracting items in the visual field so that photographs are not excluded from use in court[15]. Digital photographs should be stored indefinitely and the database should be backed-up on a routine basis.

Table 1: List of Recommended Photographs.

External Examination:	
Total Body	Anterior and posterior views
Face	Close-up (passport style) and bilateral
Eyes	Conjunctivae and sclerae
Mouth	Labial mucosa, frenula, and teeth
Neck	Anterior (extended), posterior and bilateral views
External Genitalia and Anus	
Hands and Feet	Dorsal, palmar and plantar views
Wrists, Forearms and Ankles	Anterior and posterior views
Injuries:	
Orientation and Close-up views	
Pattern injuries	With ABFO type ruler
Internal Examination:	
Reflected scalp	
Calvaria	
Brain (*in situ*)	
Base of skull (dura stripped)	
Chest wall (layered with sternum and ribs visible)	Anterior and bilateral views
Neck (layered)*	Anterior and posterior
Torso (subcutaneous dissection)*	Back and buttocks
Extremities (subcutaneous dissection)*	Including wrists and ankles

NOTE: The above recommended photographs are to be taken if the associated autopsy dissection techniques are performed.

Radiography: Appropriate plain film or digital radiographs should be taken to document the presence or absence of recent or remote bony fractures, foreign objects, projectiles and/or weapon fragments, as appropriate to the case. These may include views of the head [lateral and anterior/posterior (A-P)], the cervical spine (lateral and A-P), the torso (A-P), the upper extremities (including the hands), and the lower extremities (including the feet). Radiographic imaging should

be performed prior to the internal examination of the body. The radiographic imaging should be retained indefinitely and digital format databases should be backed-up on a routine basis.

Evidence: The body should be transported in a sealed body bag from the place of death to the autopsy facility to maintain a proper chain of custody. Some offices may choose to document who breaks the seal and when it is broken (i.e., date and/or time). Any pertinent trace evidence should be collected and preserved prior to the body being removed from the body bag or being cleaned. Saline dampened swabs can be used for possible DNA collection on bite marks or the neck in cases with suspected neck compression injuries[12]. Sexual offense evidence collection should be performed in cases of suspected sexual contact and are recommended for any female inmate. Other specimens (e.g., pulled pubic hair, pulled scalp hair, or fingernail scrapings/clippings) can be collected at the discretion of the pathologist depending on the circumstances of the case and autopsy findings. Items such as clothing, ligatures, personal property, bullets, weapon fragments, and/or probes/barbs from electronic control devices should be examined, photographed (if warranted), collected, and preserved as potential evidence[8,10].

Histology: Representative sections of all major organs should be preserved in formalin and retained in a stock jar for possible future use[10], particularly if histologic sections are not taken at the autopsy Sections should be taken for microscopic examination as needed and may be helpful in the following types of situations: to confirm gross findings or a suspected disease process, assess evidence of healing, assess age of an injury or disease process (e.g., subdural hemorrhage, pulmonary thromboemboli, deep vein thromboses, pneumonia, peritonitis or fractures), document evidence of asthma, or document chemical spray injuries. The brain may be retained for examination by a neuropathologist if deemed necessary[10]. The cardiac conduction system may be retained and evaluated by histologic examination in cases of suspected excited delirium, restraint related deaths, or sudden cardiac deaths without grossly identified lesions[10,17]. Sections of skin and subcutaneous tissue may be examined histologically to document probe wound tracks or electrical injury in cases where electronic control devices are used[1]. Histology is also useful in the differentiation of thermal injuries due to direct stun gun administration (e.g., drive stun) from abrasions. The stock jars should be retained for at least one year. Histology blocks and slides should be retained indefinitely.

Toxicology: Comprehensive toxicology, including common illicit and therapeutic drugs, should be performed on all cases where an appropriate specimen is available, unless a period of hospitalization precludes the usefulness of the testing[1]. If appropriate, seizure medications and

psychiatric medications should be included to document if the levels are therapeutic or sub-therapeutic. Vitreous fluid should also be tested for glucose, urea nitrogen, creatinine, sodium, potassium, chloride, and ketone levels to assess for hydration, hyperglycemia, renal function, and electrolyte abnormalities[1,8]. The vitreous fluid can also be used to test for lithium, ethanol and illicit drugs, (e.g., parent cocaine or 6-MAM). Femoral blood is the preferred sample, but subclavian, heart or cavity blood may be used if none is available[10]. It is recommended to collect the following specimens for possible testing: femoral blood, heart blood, brain, liver, vitreous, urine, and gastric contents. Some offices may choose to also collect bile and skeletal muscle when deemed necessary. Appropriate specimens as designated by your toxicology laboratory should be prepared for testing in cases where inhalant agents were used during restraint (i.e. oleoresin capsicum spray). If the decedent was hospitalized, attempts should be made to collect the admission specimens for testing. Interpretation of the toxicology findings should be correlated with the autopsy findings, circumstances of the death, and the decedent's medical history to determine their significance in relation to the cause of death[10]. The specimens should be frozen for long term storage and retained for a minimum of 1 year.

Microbiology: Bacterial or viral cultures may be indicated in cases where sepsis, pneumonia, peritonitis, meningitis, or other types of infection are suspected.

Ancillary Testing (i.e. molecular genetics, hemoglobin electrophoresis): Ancillary studies may be indicated in cases where sickle cell, cardiac arrhythmias (e.g., long QT syndrome) or thrombophilia disorders are suspected[1,10]. Specimens should be collected and submitted as designated by the appropriate laboratory (i.e. EDTA lavender top tubes, serum separation tube, frozen liver, cardiac muscle, spleen, etc.)

Organ and/or Tissue Recovery: Considerations for organ or tissue donation should be assessed by the forensic pathologist based on the circumstances of the death and reported injuries. The pathologist may choose to perform the external examination in the hospital prior to organ donation, including trace evidence collection authorized by the medical examiner. The pathologist may consider having medical examiner personnel trained in evidence collection present during the donation, or to have the organ procurement organization obtain and transmit images of the body and organs for evaluation by the pathologist[18]. Decisions regarding organ and tissue approval should not be made until the circumstances of the death are known, or the pathologist has had an opportunity to perform an external examination to document the presence or absence of injuries, photographically document injuries, and obtain a relevant radiographic

evaluation (ie., computed tomography scans). If donation of organs or tissue does not compromise the investigation, documentation of the injuries, or determination of the cause and manner of death; donation may be approved at the pathologist's discretion[18].

DEATH CERTIFICATION

The standardization of death certification is an essential component to ensuring uniformity of practice for the medical examiner and/or coroner investigating deaths in custody. This position paper has outlined three general categories that assist with standardizing death certification in these cases. The general category of in-custody deaths was further subdivided into five different phases to help delineate the specific circumstance of a particular death. In general, determination of cause and manner of death for a death in custody case can follow routine certification used for all deaths investigated by a specific office. As with all cases, the cause of death should be diagnosed as the underlying physical injury, disease, or combination thereof responsible for the death[36]. All manners of death can be used to certify a death in custody. For example, in the pre-custody phase, causes and manners of death can range from acute natural deaths (e.g., cardiovascular disease) to unnatural deaths including homicides (e.g., gunshot wound or asphyxia), suicides (e.g., found in barricade situations), or accidents (e.g., acute drug toxicity or blunt force injuries). Similar to the general population, natural deaths are the most common to occur during all phases within the in-custody category[21].

It is important to note that certification of deaths in custody may come under increased scrutiny and concerns may arise when the manner of death determination is performed by the agency that is under investigation (e.g., Sheriff-Coroner jurisdictions). In these instances, effort should be made to relinquish this determination to either another investigative body within the government organization, a neighboring medical examiner/coroner, or a truly independent agency should be identified to ensure death investigative transparency and community confidence.

"Suicide by cop" is a term gaining more popularity and is used when individuals exhibit threatening behaviors forcing law enforcement to shoot the individual. Examples include someone who may place a 911 call to have law enforcement respond to the scene only to display threatening behavior such as holding a gun, pointing a weapon, or advancing toward law enforcement while repeatedly ignoring or not complying with direct orders to drop the weapon or stand still, thus causing law enforcement to perceive a threat and discharge their firearm upon the individual. It is the recommendation by this committee that these deaths be certified as homicide as suggested by the National Association of Medical Examiners position paper "A Guide

for Manner of Death Certification"[36]. The "How Injury Occurred" section can be used to document that the person forced the police to shoot, provided there are accurate reports to support this conclusion.

The more difficult cases are those where the individual is observed to be acting erratically due to a severe mental illness and/or acute drug intoxication. These cases have been defined in the literature as excited delirium and often result in a law enforcement response and the restraint of the decedent[19, 20]. It is not uncommon for the individual to die during or soon after restraint and/or altercation with law enforcement[19]. Manner of death in these instances can often be inconsistent from pathologist to pathologist and from office to office. Furthermore, manner of death in these cases have ranged from accidents due to the emphasis placed on drug toxicity, homicides due to the influence of the restraint and/or altercation, or undetermined due to the inability of the certifying physician to establish a definitive opinion. In accordance with the National Association of Medical Examiners position paper "A Guide for Manner of Death Certification"[36], this committee recommends that the physician consider homicide as the manner of death in cases similar to those that would otherwise meet the threshold of "death at the hands of another". While the cause and manner of death designation should be handled the same as any other, the certifying physician/professional should fully utilize the "How Injury Occurred" section of the death certificate to communicate that the death occurred in custody. For example, wording such as "Shot by Law Enforcement", "Driver of Motor Vehicle in Collision with Fixed Object during Pursuit by Law Enforcement", "Shot Self in the Presence of Law Enforcement", "Hanged Self while Incarcerated", or "During Restraint by Law Enforcement" should be included. If the death occurred within a jail, prison, or a correctional housing facility, this information should be indicated in the "Place of Death" section on the death certificate. These are just a few examples of how the death certificate can be utilized properly to communicate the circumstance surrounding deaths in custody.

Certification of deaths in custody, however, may be limited when the cause of death is natural and the death occurs in a hospital setting. The "How Injury Occurred" and "Place of Death" sections of the death certificate cannot be used, in some jurisdictions, to communicate the phase and circumstance of the death in custody. As a result, natural deaths in custody may be lost to public health and statistical inclusion. Therefore, the death certificate should allow for brief descriptions surrounding the death circumstances and/or the development of a check box to ensure complete capture of all deaths in custody.

STATISTICAL REPORTING

The medical examiner and/or coroner have the responsibility to compile, track, and report all deaths investigated and examined by cause, manner and circumstances. Ideally, these statistics, including deaths in custody categorized by the custody continuum in this report, should be compiled in an annual report, made available to the local officials for review and use towards prevention and intervention, and deterrence. At the very least, the statistical reporting shall include cause and manner of death; age category; race; gender; and phase. Those jurisdictions that are capable should attempt to perform multi-year comparisons, trends, and geospatial analysis.

The defining and tracking of any category of death requires a standard definition, consistent criteria for diagnosis, and a reliable way of reporting. The public health approach requires a clear mechanism for capturing death data in order to predict the health of a community as well as establish programs and policy that may be able to decrease mortality and morbidity within the affected community. For mortality, the death certificate is the most viable document capable of statistically reporting deaths in the United States.

In accordance with the federal legislation HR 1447, it is the responsibility of law enforcement agencies to report deaths in custody[4]. However, this legislation does not require the medical examiner or coroner to provide data for the adherence to the law. The Bureau of Justice Statistics compiles arrest-related deaths and mortality in local jails and state prisons; however, much of the local and national data surrounding deaths in custody have revealed limitations in the accuracy of the statistical reporting[22, 23]. Therefore, the use of the US Standard Death Certificate to define, track, and report deaths in custody would paint a clearer picture as to the nature, frequency, and circumstances of these types of deaths.

Currently, the US Standard Death Certificate does not have a standard way of capturing a death in custody. It is at the discretion of the medical examiner or coroner to communicate these circumstances utilizing the “How Injury Occurred” and “Place of Death” sections of the death certificate. As previously stated, this practice has its limitation and there is an opportunity to miss many of these deaths if not properly annotated. It is for these reasons that the National Association of Medical Examiners requests that a “check box” be added to the US Standard Death Certificate to capture these deaths regardless of cause, manner and circumstances.

RELEASE OF INFORMATION

With regard to public disclosure of autopsy records pertaining to deaths in custody, forensic literature is limited but supports a policy of transparency[1, 12]. If allowable under the law in the local jurisdiction, the medical examiner/coroner office should provide full public disclosure of cause and manner of death and/or autopsy report upon completion. Public disclosure of autopsy photographs is another matter. In general, autopsy photographs should be made available to all parties with a legitimate interest in those materials. Privacy issues and the potential for sensationalization are real concerns and must be balanced against the public's right to know. Some states generally consider autopsy photographs as outside the public realm, but do specifically consider autopsy photographs of individuals who died in custody as public[24]; other states have strict privacy for all autopsy images.

If autopsy photographs of deaths in custody are to be made public, the release of those photographs should happen with simultaneous disclosure of the corresponding autopsy report. Public release of autopsy photographs without an accompanying forensic pathology expert interpretation (the autopsy report) may invite lay evaluation and misinterpretation of the findings and dissection techniques depicted in the images.

The medical examiner/coroner must be knowledgeable about their legal parameters and must work within the confines of the existing statutes and court decisions in their jurisdiction. But forensic pathologists should not be complacent in this regard either. For example, in states where the law enforcement public information exception extends to autopsy reports, pathologists should work with their local law enforcement community to assure that the exception is requested only when it is based on a legitimate, defensible rationale related to the actual investigation, where release of facts contained in the autopsy report could be reasonably expected to actually interfere with investigation of a criminal act.

As an example of the importance of simultaneous release of images and reports, statutes in Missouri implicitly consider autopsy reports public; however, similar to the situation in Texas, there is a public information exception for documents that may potentially interfere with a law enforcement investigation[31,32]. This places the onus for determination of which cases may be released to the public with law enforcement. The ramifications of this were apparent when in 2014 an unarmed teenager was shot by a police officer. The official autopsy report was withheld from the public for >100 days after the examination; the report was not released until after the case was presented to the grand jury, who found insufficient evidence for criminal charges against the shooter [34]. In the meantime, it is likely that civil unrest and public outcry was escalated in part

by the withholding of the official autopsy report. As an illustration of the intense public interest in the autopsy findings, a copy of the official report was “leaked” and published by the local newspaper well before the grand jury decision[35].

Although the committee thinks strongly that autopsy reports involving deaths in custody (and information contained in those reports) be made public as soon as possible, there are two caveats. First, the forensic pathologist must be afforded time to gather pertinent investigation information, to conduct ancillary studies, and to obtain results from relevant laboratory tests before reaching a conclusion and publically issuing facts. The pathologist should not be pressured to release preliminary information that is subject to change. Obviously, this is more relevant in restraint-related deaths, deaths suspected to result from drug intoxication, and deaths from physiologic perturbations (i.e., “excited delirium” and related causes) than for deaths from physical injuries (e.g., gunshot wounds and blunt trauma). The second caveat is that public disclosure should be coordinated so that family members of the deceased are provided key information or the full report prior to potential release to the media[1].

The specific mechanism for release of autopsy reports is dependent upon each office. The committee supports the release of autopsy reports to the public; however, an in-person discussion of results, public interviews, press conferences and the like must be approached cautiously. Many of these deaths will ultimately require forensic pathologist testimony in criminal and civil cases. Comments made in the sometimes “circus-like” atmosphere of a press conference may be misunderstood, misquoted or otherwise misinterpreted out of context. A trained public information officer, preferably in the chain of command of the forensic pathologist, is invaluable in this regard, in order to help answer questions and represent the forensic pathologist. If law enforcement agencies (police or district attorneys) are to be the spokesperson(s) for release of and public dissemination of autopsy findings, it is imperative that the forensic pathologist take responsibility for fully educating those agencies about the autopsy findings before the disclosure to the public occurs. The mechanism for release of autopsy photographs should be approached cautiously. A mechanism for viewing the autopsy photographs by persons with a legitimate interest (family of the decedent, or legal counsel of the family) without public release is a prudent approach. Finally, consideration of our role as physicians to the families of the deceased should be considered. If situations allow, a private conversation, with sympathy and empathy, for the decedents immediate family explaining the death and the findings, prior to release of information in the public arena may be prudent and “good medicine”.

CONCLUSION

This position paper defines and clarifies the three categories of deaths that fall under the umbrella of deaths in custody: pre-custody, in-custody and judicial executions. The in-custody category is further subdivided into five phases (arrest, transport, booking, incarceration, and health care) to help delineate the specific circumstances of a particular death. Recommendations guiding the investigation of these deaths and the autopsy procedures that should be performed are explained in detail. Ancillary and supporting studies, such as photography, radiography, evidence preservation/collection, histology, toxicology, and microbiology are emphasized. Review of medical records, ideally prior to autopsy, to correlate patient history with autopsy findings, is essential. Organ and tissue procurement may require a greater degree of communication amongst stakeholders, but should not be bypassed if it does not impact the investigation or determination of the cause and/or manner of death. Proper certification and statistical reporting of these deaths is critical. To aid in the accurate accounting for deaths in custody, the National Association of Medical Examiners requests that an appropriate mechanism be added to the US Standard Death Certificate to record these deaths. Lastly, in these cases, there is a public expectation for timely, accurate and transparent information; balancing the “need to know” of the public and media while working within the confines and legal parameters of the local jurisdiction can be challenging. It is recognized that these deaths have the potential to be highly politicized, drawing heavy media interest and scrutiny. The role of the medical examiner/forensic pathologist/coroner in rendering an independent cause and manner of death, free of political pressure or influence, will be more reliable and reproducible with the consistent, standardized procedures laid forth in this document.

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