

AN IN-CUSTODY DEATH REVIEWED

SUMMARY

Recently, a young woman was arrested and taken to the Orange County Sheriff's Women's Central Jail. She collapsed in her cell after being in custody for over 20 hours and died despite emergency medical interventions by the jail staff. The 2006-2007 Orange County Grand Jury reviewed this case and determined that certain jail medical procedures and/or protocols need to be reviewed and/or revised. In addition, the Grand Jury determined that reports of deputy misconduct were totally unsubstantiated.

REASON FOR INVESTIGATION

While several deaths may occur within any given year, few jail deaths received as much media attention or public speculation as this recent case. This study began as a result of a Coroner's Review which was attended by the Grand Jury.

During the Review, members of the Grand Jury raised questions as to the circumstances, medical interventions, and specific autopsy results in connection with the incident. At the conclusion of the Coroner's Review, lingering questions resulted in the Grand Jury deciding to pursue additional information through a formal study process. The study focused on the procedures used to attempt to resuscitate the inmate and whether the Health Care Agency (HCA) response met the implied level of medical care in an infirmary. In addition, the Grand Jury wanted to learn more about the events leading up to her death.

The Grand Jury decided that the study would focus on this inmate's case; however, the panel also believed that a review of the HCA emergency medical procedures would be beneficial to the jail staff and inmate populations of all jails within Orange County.

METHOD OF INVESTIGATION

The study methodology consisted of a review of all documents, DVDs, and materials related to the death investigation of the inmate. In conducting this investigation, the Grand Jury:

- interviewed selected staff of the Health Care Agency and selected first responders regarding appropriate medical interventions in the use of the Automatic External Defibrillator (AED) during cardiac arrest situations;
- reviewed all video from cameras in hallways and rooms which the inmate occupied, all photos taken during the autopsy process, the AED usage printout, statements of first responders on scene, and the coroner's report and death certificate;
- toured all hallways and cells which the inmate occupied while incarcerated and the general area where the inmate was housed to determine where responders were prior to the emergency; and
- attended the Coroner's Review on August 10, 2006.

Footnoted items have supporting medical information in the NOTES section of this report.

BACKGROUND AND FACTS

The Grand Jury is charged specifically with the oversight of all jails within the county and also attends coroner reviews. In Orange County, a Coroner's Review is convened when Orange County officers are involved in a shooting death or there is an in-custody death.

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The Grand Jury is asked to attend the review in conjunction with its public watchdog function. In order to maintain the public trust with in-custody deaths, the Sheriff-Coroner uses a medical examiner from outside of Orange County to conduct autopsies in these cases. After an autopsy, the facts regarding the case are presented to the Sheriff-Coroner for review and acceptance as to the cause and manner of death that is to be placed on the death certificate. The cause of death is determined by the medical examiner's analysis of the autopsy results. The medical examiner is charged with confirming the identity of the decedent, the place, date, and time of death; the examiner also must determine the medical cause of death (categorized as one of the following: Suicide, Natural, Homicide, Accident, or Undetermined). The Grand Jury combined its general jail oversight function with its adjunct responsibility as a public member of coroner reviews in investigating the circumstances of an inmate's death within the Orange County Women's Jail.

The inmate was being held in the Women's Central Jail infirmary, Woman's Outpatient Housing area, Cell #4, at the time of her collapse. This was determined to be a witnessed cardiac arrest because, while serving the evening meal, a member of the jail staff heard the inmate collapse to the floor of her cell. Upon entry into Cell #4, a female deputy and the on-duty infirmary nurse found the inmate prone on the floor. There is some controversy regarding the breathing status of the inmate when responders entered Cell #4. The breathing pattern deteriorated within a couple of minutes, then went to agonal (slow gasping respirations that do not sustain life), and then complete cessation. Several unsuccessful attempts (shaking and calling her name) were made to revive the inmate in the cell. The deputy and nurse rolled her to her left side. The nurse noticed blood on the floor and on the inmate's face. In an attempt to determine the location of the facial injury, the nurse left the cell and retrieved paper towels from the office across the hallway. After returning to Cell #4 and wiping the blood away, the nurse realized the injury was a non-life-threatening laceration on the inmate's nose¹.

Within a short period of time, several more nurses and deputies arrived and entered Cell #4 to assist with emergency medical interventions. A nurse was sent to retrieve an oxygen bottle and ammonia capsules from the office. Upon her return, additional unsuccessful attempts were made to revive the inmate using the ammonia capsules; then one of the other nurses was requested to call the paramedics. The first nurse attempted to feel for a pulse but was unable to locate one. She then asked another nurse to try. The second nurse, using a stethoscope, was also unable to locate a heartbeat. No other emergency medical interventions were begun².

The oxygen bottle was brought into the hallway with a nasal cannula attached. One of the nurses was sent to get a mask to use instead of the nasal cannula because the mask covers the mouth and nose, whereas the cannula is inserted in the nose only. When the nurse returned with the mask, there was some difficulty attaching it to the oxygen bottle in the hallway. After the inmate's collapse it took approximately five minutes, according to the jail video, before the oxygen bottle was taken into Cell #4. Oxygen, by face mask, was applied while the inmate was in the cell. According to *Emergency Care and Transportation of the Sick and Injured, 8th Edition*, agonal respirations require positive pressure ventilations and the generic mask used in the cell does not provide this.

The Women's Outpatient Housing does not have an AED located in this area. The AED was requested and a nurse went to retrieve it from the dispensary which was at least 40 feet away. The nurses decided it would be unsafe to use the AED in such a cramped area; therefore, the inmate was moved to the hallway outside of Cell #4. Approximately six and a

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half minutes had elapsed from the time the infirmary nurse and deputy first entered Cell #4 until the inmate was moved into the hallway. The AED and oxygen via bag-valve mask (BVM)³ were used after the inmate was relocated into the hallway. This type of mask provides the necessary positive pressure ventilation when the bag is squeezed.

The AED analyzes cardiac electrical rhythm and provides a recommended action to the user. The AED was attached to the inmate and, after analyzing her cardiac rhythm, it “recommended” defibrillation (shock). The defibrillation, as shown in the jail video, was done approximately nine minutes after the inmate collapsed in her cell. It should be noted that there was a discrepancy between the data read-out of the AED used on the inmate and statements made by the jail staff. (The AED showed one defibrillation and the statements by the jail staff indicated two to three defibrillations were given. The Grand Jury was unable to resolve this issue.) Post defibrillation, the inmate’s heart converted to a more normal electrical rhythm; however, the heart muscle was unable to contract and renew life-sustaining blood circulation despite the electrical stimulation. This condition is known as pulseless electrical activity (PEA). As a result of the change of rhythm to PEA, the AED recommended cardiopulmonary resuscitation (CPR) in lieu of another defibrillation. The nurse gave two chest compressions prior to the paramedics arriving. The total time from when the deputy and nurse first entered Cell #4 to the paramedics’ arrival was 9 minutes 49 seconds according to the jail video⁴.

Newspaper reports immediately after the inmate’s death alluded to the possibility of abuse at the hands of jail deputies. The Grand Jury determined that this allegation was without foundation. A thorough review of this case showed deputies assigned to the Women’s Central Jail treated the inmate in a professional manner at all times, despite the fact that the inmate was arrested for battery on an officer and engaged in a fistfight with her cellmate when she first arrived at the county jail. Deputies had to use a TAZER to subdue the inmate. They temporarily restrained her until she was relocated to Women’s Outpatient Housing in the infirmary area of the jail for medical reasons not related to the fight or restraint. The inmate spent approximately 13 plus hours in WOH. A doctor had released the inmate to the general population of the jail prior to her collapse; however, she had not been relocated to a new cell at the time of her cardiac arrest.

While conducting this study, the Grand Jury toured the police jail cell where the inmate was initially held and the Orange County jail facilities where the inmate was incarcerated. The jury walked the exact hallways and viewed all rooms where she had been, and were also instructed on the jail procedures in effect that day.

As a part of the Grand Jury’s review of the circumstances of this matter, the panel reviewed all videos taken of the inmate while incarcerated. The Grand Jury then reviewed 20 plus hours of DVDs showing the inmate walking through the back door of the jail, going through initial medical screening, walking down various hallways, jail staff breaking up a fight between the inmate and another prisoner, her stay in one of the medical observation rooms, her interview with supervision regarding the altercation, and the hallway outside of her final jail cell.

A review of the Memorandum of Understanding between the Orange County Sheriff’s Department and the Health Care Agency (HCA) makes it clear that HCA is responsible for handling all medical emergencies in the county jail. Therefore, HCA needs to evaluate the current emergency medical skills sets required of their jail staff. Moreover, they need to ensure that staff receives refresher training and skills testing on a regular basis. The Grand

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Jury investigation did not find any evidence of misconduct or any other inappropriate behavior on the part of jail medical staff or deputies.

CONCLUSION

The investigation of the medical response that occurred in the cell relied on statements of jail personnel. The key events, cardiac arrest and cessation of breathing, were only able to be estimated and not given an actual time stamp; however, the investigation revealed that emergency medical interventions were not enacted as quickly as is recommended in the American Heart Association's four links in the "Chain of Survival" as noted in their literature. The four time-sensitive actions are:

- early recognition of the emergency and activation of the emergency medical services (EMS) response system (phone 911);
- early bystander CPR (immediate CPR can double or triple the victim's chance of survival);
- early delivery of a shock with a defibrillator (CPR plus defibrillation within three to five minutes of collapse can produce survival rates as high as 49% to 75%); and
- early advanced life support followed by post-resuscitation care delivered by healthcare providers.

The Grand Jury investigation clearly shows that the second and third links in the "Chain of Survival" fell outside of the recommended parameters in this case. Both actions two and three were implemented just prior to paramedic arrival which took approximately nine minutes. Based on interviews, action one also arguably could have been better from the stand-point of early recognition of the problem. Part of the American Heart Association's CPR training identifies the immediate evaluation of airway, breathing, and circulation (ABC's). This initial process (ABC's) was delayed while the responders obtained paper towels to wipe blood from the patient's nose. The administration of chest compressions and positive pressure ventilations (part of CPR) was delayed and may have compromised a successful patient outcome.

The Health Care Agency needs to evaluate the current emergency medical skill sets required of their jail staff. Moreover, they need to ensure that staff receives refresher training and skills testing on a regular basis, if they are held responsible for emergency medical situations. The Grand Jury investigation did not find any evidence of misconduct or any other inappropriate behavior on the part of jail medical staff or deputies.

FINDINGS

In accordance with California Penal Code Sections 933 and 933.05, each finding will be responded to by the government entity to which it is addressed. The responses are to be submitted to the Presiding Judge of the Superior Court. The 2006-2007 Orange County Grand Jury has arrived at the following findings:

- F-1. The Health Care Agency has appeared to staff the jail infirmary with nurses lacking adequate emergency medical skills and/or regularly scheduled skills maintenance training.
- F-2. The nurses appeared to demonstrate an inadequate knowledge of some emergency medical equipment.

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- F-3. No AED was located in the Women's Outpatient Housing.
- F-4. There was a deficiency in accurate record keeping, as demonstrated by the discrepancy between the number of shocks given as reported by the AED printout, the nurses, and other witnesses.
- F-5. There was insufficient pre-planning for this type of incident.

Responses to all Findings are requested from the Health Care Agency.

RECOMMENDATIONS

In accordance with California Penal Code Sections 933 and 933.05, each recommendation will be responded to by the government entity to which it is addressed. The responses are to be submitted to the Presiding Judge of the Superior Court. Based on the findings, the 2006-2007 Orange County Grand Jury makes the following recommendations:

- R-1. HCA Nurses should demonstrate, on a regular basis, their ability to respond to emergency medical situations.
- R-2. There should be regularly scheduled review and evaluation on use of emergency medical equipment.
- R-3. The Health Care Agency should consider placing an AED in the Women's Outpatient Housing.
- R-4. The HCA should institute a process of supervisor and management review to ensure that incident reports are consistent with other incident documentation.
- R-5. Medical emergency pre-planning and drills with appropriate personnel should occur on a regular basis, especially when new staff is working in the jail.

Responses to all Recommendations are requested from the Health Care Agency.

RESPONSE REQUIREMENTS

The California Penal Code specifies the required permissible responses to the findings and recommendations contained in this report. The specific sections are quoted below:

§ 933.05. Responses to findings

(a) For purposes of subdivision (b) of section 933, as to each grand jury finding, the responding person or entity shall indicate one of the following:

- (1) The respondent agrees with the finding.
- (2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.

(b) For purposes of subdivision (b) of Section 933, as to each grand jury recommendation, the responding person or entity shall report one of the following actions

- (1) The recommendation has been implemented, with a summary regarding the implemented action.

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- (2) The recommendation has not yet been implemented, but will be implemented in the future, with a timeframe for implementation.
- (3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed. This timeframe shall not exceed six months from the date of the publication of the grand jury report.
- (4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.

NOTES

1. Emergency Care of the Sick and Injured, Copyright 2002 by American Academy of Orthopaedic Surgeons, 8th Edition, page 240

“Approach to the Assessment Process:

Remember, after developing a general impression of the patient, you should begin your assessment and care in this order of importance:

A=Airway

B=Breathing

C=Circulation

In all cases, your assessment of the patient’s airway, breathing, and circulation (ABC’s) will govern your treatment at the scene. Always give priority to emergency care of the ABC’s to ensure life-and limb saving treatment.”

2. Emergency Care of the Sick and Injured, Copyright 2002 by American Academy of Orthopaedic Surgeons, 8th Edition, page 362

“The four links in the chain of survival are as follows:

- Recognition of early warning signs and immediate activation of EMS [Emergency Medical System]
- Immediate bystander CPR
- Early defibrillation
- Early advanced cardiac life support

If any one of the links is absent, the patient is more likely to die. For example, few patients benefit from defibrillation when more than 10 minutes elapse before administration of the first shock or if CPR is not performed in the first 2 to 3 minutes.”

3. Emergency Care of the Sick and Injured, Copyright 2002 by American Academy of Orthopaedic Surgeons, 8th Edition, page 211.

“Ventilation using a BVM device is a challenging skill: it may be very difficult for one EMT-B to maintain a proper seal between the mask and the face with one hand while squeezing the bag well enough to deliver adequate air to the patient. This skill can be difficult to maintain if you do not have many opportunities to practice the skill.”

4. The National Center for Early Defibrillation (www.early-defib.org/03_01_01.html)

“Also, sudden cardiac arrest does not have to result in ‘sudden death.’ When sudden cardiac arrest occurs, most victims have an abnormal heart rhythm called ventricular fibrillation (VF). When the heart is in this state, it cannot beat in a coordinated

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fashion and blood does not circulate to the heart and the brain. First, the pulse stops. Then, breathing stops. The victim loses consciousness, collapses and appears lifeless.

“But the victim doesn’t have to stay that way. Ventricular fibrillation is a treatable rhythm. In this state, electrical energy is present in the heart, but it is chaotic. If the heart can be shocked quickly with a defibrillator, a normal heart rhythm may be restored. This is called defibrillation. If this shock is delivered within minutes after collapse, many victims can survive. Studies conducted at cardiac rehabilitation centers have shown that when sudden cardiac arrest victims in ventricular fibrillation receive defibrillation therapy within the first minute or two after collapse, more than 90 percent survive to be discharged from the hospital.”

GLOSSARY

Automatic external defibrillator (AED) - A battery powered, portable device that is able to analyze electrical activity (cardiac rhythms) in the heart and apply lifesaving shocks that cause the heart to return a more normal condition and reestablish adequate blood circulation.

Agonal Respirations - Slow gasping respirations that do not sustain life.

Bag valve mask – A device with face mask attached to a ventilation bag containing a reservoir and connected to oxygen, delivering more than 90% supplied oxygen.

Defibrillation - An electrical shock given to the heart to correct certain ineffective cardiac rhythms.

Positive pressure ventilations - Assisted respirations that provide effective air exchange in the lungs which is usually provided by mouth-to-mouth or mechanical means that force air into the lungs of people who have lost the ability to effectively breathe on their own.

TAZER - A handheld device, used by police departments, that shoots two barbed darts into the body. The darts are connected back to the gun by wires. High voltage (approximately 50,000 volts) is transmitted through the wires to the darts. The electrical charge disrupts the central nervous system and causes the person to fall to the ground, allowing the police to safely intervene with additional restraining measures if required.