



# Medical Examiners Commission Meeting

February 25, 2015

Bruce A. Hyma, M.D. • Sheriff Rick Beseler • Angela B. Corey, J.D. • Kenneth T. Jones  
Robert J. Krauss, J.D. • James S. Purdy, J.D. • Robin Giddens Sheppard, L.F.D.  
Stephen J. Nelson, M.A., M.D., F.C.A.P. • Carol Whitmore

## **MEDICAL EXAMINERS COMMISSION MEETING**

Florida Department of Law Enforcement

4211 North Lois Avenue

Tampa, Florida 33614

February 25, 2015, 10:30 AM

Opening Remarks

Introduction of Commission Members and Staff

Approval of Meeting Agenda and Minutes from previous Commission Meeting of December 4, 2014

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<b><u>ISSUE NUMBER</u></b>	<b><u>PRESENTER</u></b>
1. Election of Chairman	Vickie Koenig
2. Informational Items:	Vickie Koenig
• Status Update: District 18, 19, 20, 21, 22, 23, and 24	
• Status Update: District 4	
• Status Update: District 16	
• Reappointments/Assessment Process for Districts 1, 2, 3, 4, 5, 6 & 7	
• District 14 Vacancy	
• New Attorney General Representative on MEC	
• 2014 Interim Drugs in Deceased Persons Report	Kipp Heisterman
• Bills Filed for the 2015 Legislative Session	Jim Martin, J.D.
3. Coverdell Grant including 2015 Proposals	Kipp Heisterman
4. Organ Procurement Organization Annual Report 2014	Larry Cochran, LifeQuest
5. Mass Fatality Plans	Chairman
6. Service Connected Conditions Listed on Death Certificates & Impact on Survivors	Kim Bynum
7. Unidentified Deceased Initiative	Doug Culbertson
8. 2015 FAME Educational Conference	Bruce Goldberger, Ph.D.
9. Handling of Human Remains Infected With Viral Hemorrhagic Fevers	Chairman
10. Resolution Mr. Bob Krauss, J.D.	Chairman
11. Other Business	Chairman
• District 6 – National Association of Medical Examiners reaccreditation; Jon R. Thogmartin, M.D.	
• District 11 – American Academy of Forensic Sciences Milton Helpern, M.D. Award for Outstanding (Lifetime) Contributions to Forensic Pathology to Bruce A. Hyma, M.D.	
• District 1 – Posthumous MEC Resolution for Philip Jay Levine, D.D.S. and American Academy of Forensic Sciences Lester L. Luntz, D.D.S. Award (Forensic Odontology Section)	

## **MEDICAL EXAMINERS COMMISSION MEETING**

Hilton Singer Island Oceanfront

3700 North Ocean Drive

Riviera Beach, Florida

December 4, 2014

1:30 PM

Chairman Stephen J. Nelson called the meeting of the Medical Examiners Commission to order at **1:30 PM** at Hilton Singer Island Oceanfront, in Riviera Beach, Florida. He welcomed everyone to the meeting and asked Commission members, staff, and audience members to introduce themselves.

### **Commission members present:**

Stephen J. Nelson, M.A., M.D., District 10 Medical Examiner

Bruce A. Hyma, M.D., District 11 Medical Examiner

Robert J. Krauss, J.D., Chief Assistant Attorney General

Hon. James S. Purdy, J.D., Public Defender, 7<sup>th</sup> Judicial Circuit

Hon. Rick Beseler, Sheriff, Clay County

Robin Giddens Sheppard, L.F.D., Vice President/Funeral Director

Hon. Angela B. Corey, J.D., State Attorney, 4<sup>th</sup> Judicial Circuit

### **Commission members absent:**

Ken Jones, State Registrar, Department of Health

Hon. Carol Whitmore, Manatee County Commissioner

### **Commission staff present:**

Margaret Edwards

Kipp Heisterman

Debbie Turvaville

Doug Culbertson

Jim Martin

Vickie Koenig

### **District Medical Examiners present:**

Michael D. Bell, M.D. (District 15)

Craig Mallak, M.D. (District 17)

Roger E. Mittleman, M.D. (District 19)

Barbara C. Wolf, M.D. (District 5)

Sajid S. Qaiser, M.D. (District 18)

### **Other District personnel present:**

Chris Boden (District 17)

Bill Pellan (District 6)

Corey Johnson (District 18)

Lindsey Bayer (District 5)

Koni Rogers (District 23)

Robert Pfalzgraf, M.D. (District 21)

### **Guests present:**

Rebecca Sayer (LifeLink)

Linda Sullivan (Wuesthoff)

Andrew Mullins (Lions Eye Institute)

Dean Register (FDLE)

Lynetta Oxendine (TransLife)

Tom Cannan (RTI Donor Services)

Nancy Williams (Wuesthoff)

Jon Crisler (Lions Eye Institute)

David Quigley (FDLE-MROC)

Duane Little (FDLE-MROC)

Maurice Spates (FDLE-MROC)  
Nick Waite (RTI Donor Services)  
Laurie Ripp (RTI Donor Services)  
Ricardo Camacho (University of Florida)

Karin Frusio (LifeNet)  
Bruce Goldberger (University of Florida)  
Kimberly Owens (TBI/Medical Eye Bank)

**A MOTION WAS MADE, SECONDED, AND PASSED UNANIMOUSLY FOR THE COMMISSION TO APPROVE THE AGENDA.**

**A MOTION WAS MADE, SECONDED, AND PASSED UNANIMOUSLY FOR THE COMMISSION TO APPROVE THE MINUTES OF THE AUGUST 27, 2014, MEDICAL EXAMINERS COMMISSION MEETING.**

**ISSUE NUMBER 1: INFORMATIONAL ITEMS**

- Status Update: Dt. 18, 19, 20, 21, 22, 23, & 24

Ms. Edwards reported that although all reappointment documents were delivered to the Governor's Appointments Office in June, the Governor has not yet taken action.

- Status Update: District 4

Ms. Edwards reminded the Commission of the timeline relating to the reappointment of the District 4 Medical Examiner, which began in 2012 with the recommendation for reappointment made by the Commission at its May 25, 2012 meeting. Following the Governor's request for additional names in June 2013 and a lengthy search, a letter of recommendation naming Dr. Michael Hunter as the additional candidate was submitted to the Governor's Appointments Office on June 9, 2014. To date, the Governor has not taken action.

- Status Update: District 16

Ms. Edwards reported that the recommendation letter and Dr. Beaver's Questionnaire for Gubernatorial Appointments was forwarded to the Governor's Appointments Office, and the appointment is still pending.

- Reappointments/Assessments Process for Districts 1, 2, 3, 4, 5, 6, & 7

Ms. Edwards reported that Commission staff has sent emails to all of the district medical examiners who are up for reappointment in 2015 and that all indicated they wish to serve another term. Surveys and assessments seeking input regarding the performance of each incumbent will be sent out via email to each district's constituents in January 2015.

- 2013 Drugs in Deceased Persons Report

Ms. Edwards reported that the 2013 Drugs Identified in Deceased Persons report was released in October and is posted on the MEC website.

- 2013 Annual Workload Report

Ms. Edwards reported that the 2013 Annual Workload Report was released in September and is posted on the MEC website.

- 2014 Interim Drugs Identified in Deceased Persons Report

Ms. Edwards informed the Commission and those in attendance that data for the 2014 Interim Drug Report are due on January 2, 2015. Eight districts already submitted data, and Ms. Edwards encouraged all districts to report their data by the deadline.

### **ISSUE NUMBER 2: COVERDELL GRANT**

Ms. Edwards reminded everyone that the Commission directed staff to develop a detailed timeline to include all FDLE's deadlines for submission of Coverdell-related items. Ms. Edwards pointed Commission members to the spreadsheets in the meeting package that show all of the current timelines. Ms. Edwards said that FDLE has received all of the reimbursement requests for the 2013 Coverdell period, the deadline for which was the week of December 4<sup>th</sup>, and that just over \$4,000 was available for redistribution. With regard to the 2014 Coverdell grant, Ms. Edwards noted that the award package was released in November and staff is in the process of finalizing the awards.

Dr. Nelson said that some districts had a habit of requesting Coverdell money, but then did not file claims for reimbursement, which prevents other districts from having access to the money. He said that it had been suggested that the Coverdell award process be made competitive, rather than equal distribution of funds to everyone who applied for it.

Mr. Purdy stated that he sits on a committee that has a similar grant process in which those seeking funds must make a presentation before the grant committee, and the committee decides which projects are most worthy of grant funds. Mr. Purdy did not feel that the process was too onerous, and Dr. Nelson agreed.

Dr. Mallak said that while the FDLE process is not particularly difficult, the process that he must go through in Broward County to gain approval to receive grant funds makes it more difficult, and that it was not really worth the trouble in order to receive less than \$2,000. Dr. Bell said that he encounters the same difficulty in Palm Beach County, and that he goes through over 60 man hours of work in order to receive a relatively small amount of money. Dr. Nelson reminded him that the real issue was that districts are asking for Coverdell money, being approved for funds, and then not spending the funds.

A member of the audience asked what typically happens to the money if a district doesn't spend it. Ms. Edwards responded that in most cases the district will inform staff that they do not intend to spend the funds after it is too late to redistribute it to other districts, and that the money is then returned to FDLE. Another audience member said that it appears that there are only two or three offices that are consistently late with meeting deadlines, and this appears to be a matter of educating the districts as to the importance of spending the money, or notifying staff well in advance of the deadline if they will not need the money so that it can be redistributed. Dr. Nelson responded that MEC staff sends out multiple emails reminding everyone of the upcoming deadlines.

Dr. Nelson reiterated that it is incumbent upon the districts to inform FDLE if they will not be using their Coverdell funds so it can be redirected to a district that will put it to good use.

### **ISSUE NUMBER 3: CANNABINOIDS TESTING POLICY DIRECTIVE**

Dr. Nelson said that at the last MEC meeting it was decided to send a directive to all districts requiring them to test for cannabinoids under proper circumstances. Dr. Nelson explained that this came about due to some districts having no cannabinoids present in any death during the previous year.

Dr. Hyma, who did not attend the last meeting, said that he listened to the recording of the meeting, and he is one of the districts that do not test for cannabinoids. He added that he disagrees with the directive, and is not really clear about the objective of the directive, adding that if the objective is to collect numbers, districts would need to look not only at violent deaths, but natural deaths also. Dr. Hyma stated further that this would be a burden to his district due to the number of deaths in which he would have to test for cannabinoids, and expressed concern that there is no Florida statute that defines marijuana intoxication. Dr. Nelson said the real thrust of the directive is to get a handle on motor vehicle deaths and other violent deaths in which cannabinoids would be present. He said that this information would be beneficial, especially in light of the fact that Florida will most likely end up passing a medical marijuana law.

Bill Pellan commented that Rule 11G defines the testing for alcohol and appropriate chemicals, so he questions if it was the intent of the Commission to define appropriate chemicals, and would medical examiners be required to test for all tracked drugs. Dr. Nelson responded that he did not see that as the intent, and that it is not intended to direct the testing of everyone who dies a violent death. He reiterated that the victims of a plane crash would not be tested, but the cockpit crew would be tested.

**A MOTION WAS MADE AND SECONDED FOR THE COMMISSION TO ADOPT THE POLICY DIRECTIVE INSTRUCTING EACH DISTRICT TO TEST FOR CANNABINOIDS IF THE DEATH MEETS THE REQUIREMENTS OF RULE 11G-2.003(4), F.A.C. AS WRITTEN. THERE WAS NO DISCUSSION AND THE MOTION PASSED WITH SIX YEAS. DR. HYMA VOTED NO.**

### **ISSUE NUMBER 4: EBOLA DEATHS**

Dr. Nelson informed the Commission that the Division of Cemetery and Consumer Services expressed concern regarding the handling of the bodies of those who died from Ebola. Dr. Nelson said that no medical examiner should autopsy the body of anyone who has died from Ebola as directed by the Centers for Disease Control. He recommended that all medical examiners become acquainted with staff in the county health departments and pointed out the list with names and contact information included in the meeting package that was provided by Commission member Ken Jones.

### **ISSUE NUMBER 5: UNIDENTIFIED DECEASED INITIATIVE**

Mr. Culbertson informed the Commission that there was one unidentified deceased success story for this quarter. In District 4, a body found buried in an isolated area near Royal Way, west of Interlachen, was confirmed to be a Putnam County man reported missing on December 23, 2013. The family of the decedent had last seen or heard from Jose "Anthony" Cortez in the area of Sixth Way in Interlachen. Detectives suspected he was a victim and developed clues in his disappearance,

leading to the discovery of the body on Sept 30<sup>th</sup>. In 2014, District 4 received DNA confirmation that the body was Cortez.

Mr. Culbertson reminded the DMEs to make use of tools available to them including Florida Unidentified Decedent Database (FLUIDDB) and National Missing and Unidentified Persons System (NAMUS).

#### **ISSUE NUMBER 6: 2015 FAME EDUCATIONAL CONFERENCE**

Dr. Goldberger said that Districts 7 and 24 Medical Examiner Marie Herrmann, M.D., will host the 2015 FAME Educational Conference, July 15-17, 2015 at the Daytona Shores Resort and Spa in Daytona Beach. Sleeping rooms at the hotel are \$154 per night; the cost of registration should remain unchanged.

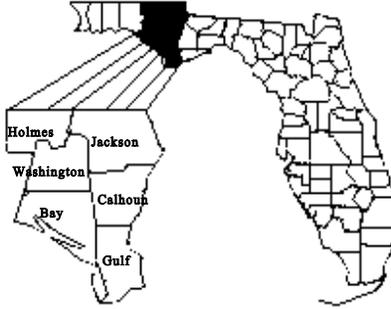
#### **ISSUE NUMBER 7: OTHER BUSINESS**

- Dr. Goldberger presented recent statistics on emerging drugs, both synthetic and natural, including Kratom, a natural herb. Dr. Goldberger said that there has already been one reported death due to Kratom in Pensacola. One case of n-bomb has been reported in Tallahassee, and ethylone is causing more deaths, especially in Miami. Dr. Bell reported there were four cases the day before the meeting with a combination of fentanyl and heroin in District 15 (Palm Beach County).
- Dr. Nelson reported to the Commission that Mr. Ken Jones has been appointed as the new State Registrar.
- Dr. Nelson reported to Commission that the Department of Health Strategic Planning Oversight Team (SPOT) is holding a conference in January. The purpose is to establish a rapid response team that can respond to emergency situations, i.e. Ebola.

**With no further business to come before the Commission, the meeting was adjourned at 2:45 P.M.**

**MEDICAL EXAMINER  
DISTRICT FOURTEEN**

**Michael D. Hunter, M.D. P.A**  
District Medical Examiner



3737 Frankford Avenue Panama City, FL 32405  
Phone (850) 747-5740 / Facsimile (850) 747-5745

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Governor Scott,

I'm writing to inform you that I will be leaving my position as the District 14 Medical Examiner on March 20, 2015.

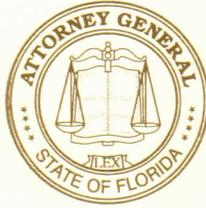
Sincerely,

A handwritten signature in blue ink, appearing to read 'Michael D. Hunter', written over a light blue horizontal line.

1-22-2015

Michael D. Hunter, M.D.  
District Fourteen Medical Examiner

CC: Stephen J. Nelson, MD Chairman of the Florida Medical Examiner Commission  
Margaret Edwards, Staff Director  
Vickie Koeng, Bureau Chief



## STATE OF FLORIDA

**PAM BONDI**  
**ATTORNEY GENERAL**

January 26, 2015

The Honorable Rick Scott  
Governor, State of Florida  
The Capitol  
400 South Monroe Street  
Tallahassee, Florida 32399-0001

Dear Governor Scott:

Section 406.02 (1)(b), Florida Statutes (2014), pertaining to the membership of the Florida Medical Examiners Commission, provides that one member of the Commission shall be the Attorney General or her designated representative. Please be advised that I am designating Assistant Attorney General Wesley Heidt, Bureau Chief, Daytona Beach Criminal Appeals, as my representative to sit on the Medical Examiners Commission effective Thursday, February 26, 2015.

Sincerely,

Pam Bondi  
Attorney General

PB/lpg

cc: Carolyn Snurkowski, Associate Deputy Attorney General  
Bob Krauss, Assistant Attorney General

## Bills of Interest - 2015 Legislative Session

House Bill 287 and Senate Bill 764 "Relating to Controlled Substances" These bills amend section 893.03, F.S., relating to controlled substances, and add Kratom to the list of controlled substances.

House Bill 243 and Senate Bill 640 "Relating to Vital Statistics" These bills amend section 382, F.S., by revising provisions relating to records of final dispositions of dead bodies; requiring maintenance of records for a specified period; requiring electronic filing of death and fetal death certificates with the department or local registrar; authorizing certain legally authorized persons to provide personal data about the deceased; and adding a definition of a "burial transit permit".

Senate Bill 706 This bill is a reviser's bill to omit all laws which grant duplicative rulemaking authority. The bill proposes to delete the provisions of section 406.11(3), F.S., which allows the MEC to adopt rules incorporating by reference the practice guidelines relating to examinations, investigations and autopsies by medical examiners. The MEC already has sufficient rulemaking authority under section 406.04, F.S.

**Expenditure List (Received 1/28/15)  
District Four Medical Examiner Office**

**Category: Other**

**The District Four Medical Examiner's Office** requests funds for Forensic Investigator Training (Homicide Investigations) for four investigators from the Institute of Police Technology and Management.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
4	Forensic Investigator training from IPTM 4 Investigators @ \$695/ea	\$2,780.00

**Total Award Amount: \$2,780.00**

**Expenditure List (Received 2/5/15)  
District Six Medical Examiner Office**

**Category: Consultants/Contracts**

The District Six Medical Examiner's Office requests funds for real-time GPS service, which will help dispatch the appropriate vehicle to a death scene reducing response time. District Six Medical Examiner's Office also requests funds to purchase wireless broadband internet access for the use of three laptop computers in the field.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
5	Real-Time GPS Services \$29.85 x 5 units x 12 months	\$1,791.00
3	Wireless Broadband Service \$36.07/mo x 3 laptops x 12 mo	\$1,298.52

**Category: Equipment**

The District Six Medical Examiner's Office requests funds for a Ferno 24 Maxx Heavy Duty decedent removal stretcher.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Ferno 24 Maxx Heavy Duty decedent removal stretcher	\$2,904.20

**Total Award Amount: \$5,993.72**

**Expenditure List (Received 2/10/15)  
District Seven Medical Examiner Office**

**Category: Travel**

The District Seven Medical Examiner's Office requests funds to send one medical examiner assistant to St. Louis University in St. Louis, MO for the initial Medicolegal Death Investigator Course and one Medical Examiner to Charlotte, NC for the NAME Annual Conference

Quantity	Item	Cost
1	Airfare to St. Louis	\$600.00
1	Hotel Expenses 6 Nights @ \$125/night	\$750.00
1	GSA Rate for St. Louis 6 Nights @ \$115/night	\$690.00
1	Per Diem for 6 Days @ \$62.50/day	\$375.00
1	GSA Per Diem for 6 Days @ \$66/day	\$396.00
1	Airfare to Charlotte	\$350.00
1	Hotel Expenses for Charlotte 6 Nights @ \$250/night	\$1500.00
1	GSA Rate for Charlotte 6 Nights @ \$110/night	\$660.00
1	Per Diem for 6 Days @ \$58.33/day	\$350.00
1	GSA Per Diem for 6 Days @ \$51/day	\$306.00

**Category: Other Costs**

The District Seven Medical Examiner's Office requests funding for registration and continuing education fees associated with professional meetings and courses. In order to enhance professionalism and productivity, the Office encourages staff to attend appropriate training courses that keep them informed about advances in techniques and methods pertaining to medicolegal death investigation. The funding will be used for registration fees and continuing education fees for the Medicolegal Death Investigator Training Course and NAME Annual Meeting.

Quantity	Item	Cost
1	Medicolegal Course Registration	\$825.00
1	NAME Registration Fee	\$800.00
1	Continuing Education Fee	\$100.00

**Total Award Amount: \$5,650.00  
Total GSA Possible Award Amount: \$4,727.00**

**Expenditure List (Received 2/12/15)  
District Eight Medical Examiner Office**

**Category: Equipment**

The District Eight Medical Examiner's Office requests funds to purchase three microscopic slide cabinets and two block storage cabinets. These cabinets will provide the protection for tissue sections that are needed for histological review by the ME. These cases are solvent proof and can be stacked. They are constructed of steel and can store up to 7,500 blocks combined.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
3	Fisherbrand microscopic slide cabinet 3 @ \$215.31	\$645.93
2	Thermo scientific Shandon block cabinet 2 @ \$432.95	\$865.90

**Category: Indirect Costs**

The District Eight Medical Examiner's Office requests funds to offset indirect costs associated with the above purchase.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Indirect costs	\$151.18

**Total Award Amount: \$1,663.01**

**Expenditure List (Received 2/4/15)  
District Nine Medical Examiner Office**

**Category: Equipment**

**The District Nine Medical Examiner's Office** requests funds for autopsy carts and tray tops. These carts and tray tops are vital to District Nine's daily morgue operations, as well as, being instrumental in mass fatality incidents. By allocating funds for additional autopsy carts and tray tops, District Nine will be able to increase their operational capacity to move decedents throughout their workflow process.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
2	Autopsy Carts and Tray Tops	\$6,690.30

**Total Award Amount: \$6,690.30**

**Expenditure List (Received 1/30/15)  
District Ten Medical Examiner Office**

**Category: Consultants/Contracts**

**The District Ten Medical Examiner's Office** requests funds for Anthropology Fees. This consultant is needed to identify unknown decedents and assist in determining cause and manner of death. Without these services, medical examiner cases would stagnate and not move forward. These services will improve the timeliness and eliminate backlog of medical examiner cases.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Anthropology Services	\$3,000.00

**Category: Equipment**

**The District Ten Medical Examiner's Office** requests funds for an autopsy saw.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Autopsy Saw	\$2,000.00

**Total Award Amount: \$5,000.00**

**Expenditure List (Received 2/6/15)  
District Eleven Medical Examiner Office**

**Category: Equipment**

**The District Eleven Medical Examiner's Office** requests funds for HP Elite Desktop 800 Computers, which will replace computers that are more than five years old and no longer under warranty.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
4	HP Elite Desktop 800 PC's 4PC's @\$1429.00/ea	\$5,716.00

**Total Award Amount: \$5,716.00**

**Expenditure List (Received 1/21/15)  
District Twelve Medical Examiner Office**

**Category: Equipment**

**The District Twelve Medical Examiner's Office** requests funds to purchase new computer equipment to facilitate and increase concurrent analytical and data analysis with their newly purchased case management database and/or computer software to upgrade their current operating systems. This will ensure that they can interface more efficiently with the new hardware of their new case management database and apply some funds to the annual maintenance of their new management database.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Computer equipment/software	\$8,000.00

**Total Award Amount: \$8,000.00**

**Expenditure List (Received 2/13/15)  
District Fourteen Medical Examiner Office**

**Category: Equipment**

**The District Fourteen Medical Examiner's Office** requests funds to purchase a Nikon D 3200 camera kit with SB-700 flash and Extra EN-EL14A Battery. This will allow District 14 to replace the current camera and place it into backup status District 14 also requests funds to purchase Nikon D5500 Camera kit, which will allow them to replace the previous camera and palce it into backup status as well.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Nikon D3200 Camera Kit	\$475.00
1	Nikon SB-700 Flash	\$326.95
1	Extra EN-EL14A Battery for Camera	\$45.00
1	Nikon D5500 Camera Kit	\$999.99

**Total Award Amount: \$1,846.94**

**Expenditure List (Received 2/5/15)  
District Fifteen Medical Examiner Office**

**Category: Consultants/Contracts**

**The District Fifteen Medical Examiner's Office** requests funds for a 12 month Anthropology Service Contract and a 12 month Odontology Service Contract. These consultants are needed to identify unknown decedents and assist in determining cause and manner of death. Without these services, medical examiner cases would stagnate and not move forward. These services will improve the timeliness and eliminate backlog of medical examiner cases.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Forensic Odontology Service Contract for 12 Months	\$4,500.00
1	Forensic Anthropology Service Contract for 12 Months	\$3,150.00

**Total Award Amount: \$7,650.00**

**Expenditure List (Received 1/21/15)  
District Seventeen Medical Examiner Office**

**Category: Other**

**The District Seventeen Medical Examiner's Office** requests funds for CAP Forensic Toxicology Survey Continuing Education for 15 staff to be applied toward certifications and/or licensure. This program provides each user up to 12 CE's per year.

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
15	CAP Forensic Toxicology Survey Continuing Education	\$2,314.00

**Total Award Amount: \$2,314.00**

**Expenditure List (Received 2/9/15)  
District Nineteen Medical Examiner Office**

**Category: Equipment**

**The District Nineteen Medical Examiner's Office** requests funds to purchase a co-observation set up that will be installed on Dr. Mittleman's microscope so he can use it for teaching purposes. District 19 has medical students every year and this will be a valuable instructional tool for these students. It will also be helpful for both doctors to collaborate when necessary

<b>Quantity</b>	<b>Item</b>	<b>Cost</b>
1	Microscope co-observation setup	\$3,640.00

**Total Award Amount: \$3,640.00**

**Expenditure List (Received 1/19/15)  
District Twenty One Medical Examiner Office**

**Category: Personnel**

The District Twenty-One Medical Examiner's Office requests to fund overtime for one administrative assistant and one autopsy assistant to assist in continually updating records and information within the office.

Quantity	Item	Cost
1	Administrative Assistant Overtime (\$22.82/hr x 50hr)	\$1,141.00
1	Autopsy Assistant Overtime (\$19.57/hr x 50/hr)	\$978.50

**Category: Fringe**

The District Twenty-One Medical Examiner's Office requests to fund FICA at 7.643% for the administrative assistant and autopsy assistant.

Quantity	Item	Cost
1	Administrative Assistant FICA @ 7.643%	\$94.41
1	Autopsy Assistant FICA @ 7.643%	\$80.96

**Category: Travel**

The District Twenty-One Medical Examiner's Office requests funds for Forensic Investigator Training (Medicolegal Investigation of Death) from the Miami Dade Police Department

Quantity	Item	Cost
3	Hotel Stay \$150/night @ 5 nights	\$2,250.00

**Category: Other**

The District Twenty-One Medical Examiner's Office requests funds for Forensic Investigator Training (Medicolegal Investigation of Death) from the Miami Dade Police Department

Quantity	Item	Cost
3	Forensic Investigator Registrations 3 @ \$825	\$2,475.00

**Total Award Amount: \$7,019.87**

**Total Amount Requested by all Districts: \$63,963.84**  
**Total NIJ Award: \$38,570**

2010-2013 Coverdell Grant Residuals

2010 Grant			2011 Grant		
District	Allotment	Residual	District	Allotment	Residual
1	\$5,985.00	\$4,155.92	1	\$ 7,650.00	\$675.10
2	\$5,818.00	\$0.00	2	\$ 6,857.00	\$519.40
4	\$4,976.00	\$0.00	4	n/a	n/a
5	\$5,496.00	\$186.01	5	\$ 7,546.00	\$109.86
6	\$5,500.00	\$8.32	6	\$ 8,550.00	\$45.05
7	\$5,557.00	\$91.81	7	\$ 8,600.00	\$0.00
8	\$5,445.00	\$0.00	8	\$ 7,630.00	\$585.85
9	\$5,500.00	\$274.02	9	\$ 7,000.00	\$245.43
10	\$5,497.00	\$0.00	10	\$ 7,650.00	\$263.04
11	\$6,315.00	\$0.03	11	n/a	n/a
12	\$5,500.00	\$0.00	12	\$ 7,917.00	\$0.00
13	\$5,500.00	\$0.00	13	\$ 7,650.00	\$0.00
14	\$5,400.00	\$662.00	14	n/a	n/a
15	\$5,500.00	\$500.00	15	\$ 7,650.00	\$0.00
16	\$5,500.00	\$5,500.00	16	n/a	n/a
17	\$5,500.00	\$1,018.65	17	\$ 7,650.00	\$0.00
18	\$5,500.00	\$5,500.00	18	n/a	n/a
21	\$5,510.00	\$0.44	21	\$ 7,650.00	\$5.30
23	n/a	n/a	23	n/a	n/a
<b>Total</b>	<b>\$99,999.00</b>	<b>\$17,897.20</b>	<b>Total</b>	<b>\$ 100,000.00</b>	<b>\$2,449.03</b>
<b>Amount Expended</b>		<b>\$82,101.80</b>	<b>Amount Expended</b>		<b>\$97,550.97</b>

2010-2013 Coverdell Grant Residuals

2012 Grant			2013 Grant		
District	Allotment	Residual	District	Allotment	Residual
<b>1</b>	\$3,000.00	\$3,000.00	<b>1</b>	\$2,040.00	\$750.06
<b>2</b>	\$1,821.00	\$345.08	<b>2</b>	\$2,000.00	\$0.00
<b>4</b>	\$1,912.00	\$5.32	<b>4</b>	\$1,403.00	\$0.00
<b>5</b>	\$2,073.00	\$73.71	<b>5</b>	\$1,636.00	\$0.00
<b>6</b>	\$4,855.00	\$11.74	<b>6</b>	\$3,291.36	\$0.00
<b>7</b>	\$3,110.00	\$350.00	<b>7</b>	\$3,165.00	\$117.34
<b>8</b>	n/a	n/a	<b>8</b>	\$1,278.33	\$0.00
<b>9</b>	\$3,645.00	\$132.86	<b>9</b>	\$2,200.00	\$80.00
<b>10</b>	\$1,998.00	\$1,822.42	<b>10</b>	\$2,500.00	\$0.00
<b>11</b>	\$2,779.00	\$0.25	<b>11</b>	\$3,001.15	\$0.00
<b>12</b>	\$1,722.00	\$0.00	<b>12</b>	\$1,500.00	\$0.00
<b>13</b>	n/a	n/a	<b>13</b>	n/a	n/a
<b>14</b>	n/a	n/a	<b>14</b>	n/a	n/a
<b>15</b>	\$2,243.00	\$91.16	<b>15</b>	\$1,500.00	\$0.00
<b>16</b>	\$1,822.00	\$1,822.00	<b>16</b>	\$1,500.00	\$1,500.00
<b>17</b>	\$1,812.00	\$0.00	<b>17</b>	\$1,928.00	\$0.00
<b>18</b>	\$2,904.00	\$2,904.00	<b>18</b>	\$1,611.68	\$1,612.00
<b>19</b>	n/a	n/a	<b>19</b>	\$1,540.00	\$0.00
<b>21</b>	\$2,011.00	\$0.00	<b>21</b>	\$1,805.00	\$0.00
<b>23</b>	\$2,000.00	\$2,000.00	<b>23</b>	n/a	n/a
<b>Total</b>	<b>\$39,707.00</b>	<b>\$12,558.54</b>	<b>Total</b>	<b>\$33,899.52</b>	<b>\$4,059.40</b>
<b>Amount Expended</b>	<b>\$27,148.46</b>		<b>Amount Expended</b>	<b>\$29,840.12</b>	

# Handling of Human Remains Infected With Viral Hemorrhagic Fevers

*A Quick Reference Guide For:*  
Health Care Workers  
Medical Examiners  
Funeral Services

Developed in coordination with the Florida Medical Examiners Commission,  
the Florida Emergency Mortuary Operations Response System and the  
Florida Department of Health



# Contents

- 1. Introduction to Safe Handling of Human Remains**
  - 1.1 Handling of Infected Human Remains
  - 1.2 State Authority of Disposition of Infected Human Remains
  - 1.3 At Risk Responders and Service Providers
  - 1.4 Personal Protective Equipment (PPE)
- 2. Scene Response and Transport**
  - 2.1 Preparation for Transport
  - 2.2 Scene Decontamination
  - 2.3 Transport Drivers
- 3. Mortuary Care**
  - 3.1 General Guidelines
  - 3.2 Key Points
- 4. Disposition of Infected Human Remains**
  - 4.1 General Guidelines
  - 4.2 Cremation
  - 4.3 Burial
  - 4.4 Interstate and International Transport of Infected Human Remains
- 5. References**

**Appendix A:** [Florida Department of Health Guidance Personal Protective Equipment \(PPE\) for Health Care Workers: Ebola Virus Disease \(EVD\)](#)

# ***1. Introduction to Safe Handling of Human Remains***

## **1.1 Handling of Infected Human Remains:**

Note: Suspected Ebola Virus Disease or other Viral Hemorrhagic Fever cases are immediately reportable to DOH according to Florida Law (Chapter 64D-3, F.A.C.).

This document provides guidance for professionals involved with the postmortem care in hospitals, medical examiner offices and funeral homes regarding the appropriate handling of human remains infected with pathogens responsible for viral hemorrhagic fevers (VHF), such as Ebola Virus Disease (EVD). Providers and responders who must physically handle deceased victims of hemorrhagic fevers must be equipped with accurate and detailed information to assist with their mission as safely as possible, while preserving as much dignity as possible for the deceased.

Funeral homes, funeral directors, embalmers, and multiple other death care industry businesses potentially involved in removal and final disposition of remains of Ebola decedents, are regulated under Chapter 497, Florida Statutes, by the Division of Funeral, Cemetery, and Consumer Services (FCCS Division), in the Florida Department of Financial Services. The FCCS Division works in concert with the Florida Board of Funeral, Cemetery, and Consumer Services, licenses death care professionals and businesses under Chapter 497, Florida Statutes (F.S.); the Board is contacted through the FCCS Division.

The following categories of Chapter 497 licensees would be legally authorized to conduct a removal of a decedent from place of death:

- A funeral establishment licensed under Chapter 497 (a funeral establishment may take remains to conduct a burial or a cremation).
- A direct disposal establishment licensed under Chapter 497 (direct disposal establishments are only authorized to take remains for direct cremation).
- A removal service licensed under Chapter 497, acting at the request of a funeral establishment or direct disposal establishment. Removal services subcontract with funeral establishments and direct disposal establishments to perform removals from place of death and bring the remains to the funeral establishment, direct disposal establishment, or cinerator facility. Removal services do not deal directly with the public. The use of removal services by funeral establishments and direct disposal establishments is common.

This document is designed to illustrate the basic steps required to minimize risk to all responders when handling victims of EVD or other VHF. Considerations for at-risk responders and service providers include at least the following:

- Handling of infected human remains, or a body bag containing infected human remains, should be kept to an absolute minimum.
- Only trained personnel wearing appropriate personal protective equipment (PPE) should touch or move any infected remains or associated contaminated materials. Personnel must be medically cleared, trained and fit tested, to the specific models of respirators they may use, per OSHA respiratory protection program requirements.
- Autopsies of infected human remains should be avoided. If it is deemed an autopsy is necessary, the Florida Department of Health (DOH) and the Centers for Disease Control and Prevention (CDC) should be consulted for additional safety precautions.
- In those instances where a hospital, clinic, or Medical Examiner's Office (MEO) is holding human remains believed to have been infected or possibly infected with Ebola virus, the hospital, clinic or MEO shall assure that any funeral establishment or other removal staff who arrive at that location to remove the remains of that decedent are advised, prior to being given access to the remains, that the remains are or may be infected by the Ebola virus.
- If cause of death is known to be EVD or other VHF, then an autopsy is not required and the body will not be transported to the MEO. However, in accordance with state law, the Medical Examiner (ME) has jurisdiction of the body and must sign the death certificate.
  - A death from EVD or other VHF in the U.S. is most likely to occur in the hospital setting, where the diagnosis has been established, as infected individuals develop significant and debilitating symptoms typically 8-10 days after infection.
  - The body would be retrieved and transported directly from the hospital by an appropriate Chapter 497 licensee (see above), following the guidance in this document and from CDC's Guidance for Safe Handling of Human Remains of Ebola Patients in U. S. Hospitals and Mortuaries found at: <http://www.cdc.gov/vhf/ebola/hcp/guidance-safe-handling-human-remains-ebola-patients-us-hospitals-mortuaries.html>.
  - The right of the legally authorized person under section 497.005(39), F.S., of the Ebola decedent (typically the spouse or child of the decedent) to choose the funeral establishment that will handle final disposition, remains in effect as regards an Ebola decedent. [However, see also section 1.2, State Authority of Disposition of Infected Human Remains.]
  - In the case of indigents whose final disposition is handled and paid for by a county under a county contract with a local funeral establishment, cremation shall be an acceptable and preferred method of final disposition, notwithstanding the terms of the contract. If the disposition is by burial, the requirement for a hermetically-sealed casket shall be complied with.

- In the rare event of next-of-kin being unable to find a funeral establishment or direct disposal establishment that will accept the body in a timely manner, contact the Florida Cemetery, Cremation and Funeral Association (FCCFA) for assistance. Also, there should be at least one Funeral Home on contract with the MEO to provide services in such cases.
- If the cause of death is suspected EVD or other VHF, the body should be kept on site (e.g., patient's hospital room) while awaiting confirmatory test results. Once the diagnosis is confirmed, the body is handled as for a known case of EVD or other VHF. If testing rules out EVD or other VHF, then the body is handled in accordance with section 406.11, F.S.
- If cause of death is unknown but the history and findings are not compatible with EVD or other VHF as defined by CDC (see below), then the body will be handled in accordance with section 406.11, F.S.
- If the death occurs outside the medical care setting, and EVD or other VHF is suspected as the cause of death due to travel or contact history, and a history of compatible symptoms and findings (e.g., fever, vomiting, diarrhea, hemorrhage), then DOH and MEO will work together to provide guidance for testing. Remains would be stored at a secure, temporary predetermined refrigerated location until cause of death diagnosis is established.
- If the death occurs outside the medical care setting and, pursuant to a call from the decedent's family or relatives, funeral establishment staff or other Chapter 497 removal staff arrive to conduct a removal of the remains, such staff should be wearing disposable gloves upon initial entry into the premises where death occurred, even if at that time there is no reason to believe that EVD may be involved. Such removal staff shall, prior to touching the remains, be alert for indications that the decedent was afflicted by fever, vomiting, diarrhea, or hemorrhage at or near to time of death. Removal staff would be authorized to ask any persons present at the place of death whether there was any indication of fever, vomiting, diarrhea, or hemorrhage at or near to time of death. If there is any indication that there was vomiting, diarrhea, or hemorrhage at or near to time of death, the removal staff should immediately terminate removal efforts and withdraw from the premises and immediately contact the local MEO for guidance. Upon such withdrawal from the premises, the removal staff shall immediately conduct a thorough decontamination procedure of their body and clothing (e.g., wash hands, shower, change clothes and shoes and assure that clothes and shoes are segregated and washed/decontaminated).

## **1.2 State Authority of Disposition of Infected Human Remains:**

Under the emergency management powers of the Office of the Governor and specifically the authority in section 252.36, Florida Statutes, the Governor may issue Executive Orders that have the full force and effect of law. The Governor may direct the Florida Department of Health

to take certain actions necessary to protect the health and welfare of the citizens of the State of Florida. An Executive Order may suspend the provisions of any regulatory statute regarding the disposal of human remains and grant the Department of Health disposition powers for human remains, including mandatory cremation.

In the event of a declared state of emergency, the Governor will issue an Executive Order that will likely contain clear direction as to the proper disposal methods for infected human remains. The Executive Order will also likely suspend the application of several state laws in conflict with the direction as to proper disposal methods for infected human remains.

If the Governor declares a state of emergency, modifications to traditional funeral practices may be recommended. In doing so, the Executive Order would clearly define what constitutes "infected human remains." Other considerations for an Executive Order declaring a state of emergency include:

- The Executive Order may require the cremation of all infected human remains and suspend any state laws related that would affect the ability of public health officials to take custody and control of the remains and direct proper disposal.
- The Executive Order may suspend the provisions of section 872.03, Florida Statutes, requiring a 48 hour waiting period prior to the cremation of any human remains.
- The Executive Order may suspend the application of provisions of chapter 406, Florida Statutes, requiring certain activities by Medical Examiners.
- The Executive Order may set conditions on the transport of human remains infected by Ebola.

### **1.3 At-Risk Responders and Service Providers:**

In patients who die of EVD or other VHF, infectious pathogen may be found throughout the body, including tissues and fluids, and may survive up to several days at room temperature. Thus, the virus can be transmitted in postmortem care settings by incisions, lacerations, and punctures with instruments used during autopsy and embalming procedures. Additionally, transmission can occur through direct handling of human remains without appropriate PPE, and through splashes of blood or other body fluids (e.g., urine, feces) to unprotected skin and mucosa (e.g., eyes, nose, mouth), which occur during routine body handling and transport.

Many deaths may occur outside of traditional medical treatment facilities, such as clinics and hospitals. Local police, fire and/or EMS are typically involved in the investigations of these deaths to verify that death has actually occurred, and to ensure the death is from a natural disease and not a result of suspicious or violent activity. This potentially exposes a large number of responders to potential risk of exposure to communicable diseases. Responders and providers exposed to potentially infected human remains include:

- Health care providers when:
  - attempting to triage patients (EMT and EMS units responding to calls of sick and possibly infected patients),
  - treating patients (hospital emergency departments and in-patient care),
  - and/or providing outpatient care when the diagnosis is being established.
- Medical Examiner personnel exposed to communicable diseases during their investigation of potential cases.
- Funeral service personnel who may respond to a home death without a prior diagnosis, or who must transport the remains.

#### **1.4 PPE for Health Care Workers, Medical Examiners, and Funeral Service Workers:**

For confirmed or suspected EVD or other VHF, standard, contact and droplet infection prevention/control precautions must be applied, with every attempt to avoid exposure to infected blood, fluids or contaminated environmental surfaces, clothes, linens or other objects. DOH guidance on appropriate PPE selection, donning/doffing procedures, and disinfection of reusable PPE, is found in Appendix A. This includes a link to two training videos for high and low risk patient encounter settings.

It is critical that all PPE be properly fitted and worn before entering the environment containing the body. DOH considers as high risk exposures, working in environments that may expose responders/workers to direct or potential direct contact with the infected decedent's blood or bodily fluids (e.g., sweat, vomit, feces, urine); processing of infected laboratory specimens; and/or contact with linens, objects and environmental surfaces contaminated with the decedent's blood or bodily fluids. In these higher risk work environments, at minimum, use DOH PPE guidance for high risk patient encounters at all times while in contact with the body.

When death occurs at a hospital or medical clinic, the responsibility for compliance with CDC guidance to shroud wrap and double bag the remains, and to decontaminate the exterior of the outer body bag, is on the hospital and clinic staff. See sections 2.1-2.2 of this document and CDC guidance at <http://www.cdc.gov/vhf/ebola/hcp/guidance-safe-handling-human-remains-ebola-patients-us-hospitals-mortuaries.html>. Hospital staff may need to coordinate with the transporting agent for provision of the correct body bags, cremation container, and casket.

Whenever funeral establishment staff, direct disposal establishment staff, removal service staff, cinerator facility staff, or other Chapter 497 licensee staff touch or handle a properly sealed and disinfected body bag containing an Ebola decedent's remains, that staff should be wearing the following PPE appropriate for DOH defined lower risk settings (see Appendix A):

- Fluid impermeable single-use head-to-toe coverall

- Single-use nitrile gloves (double glove with smaller size as base layer and larger size as outer layer)
- Single-use impermeable shoe/boot covers
- Eye protection (tight fitting goggles or face shield)
- Fluid resistant facemask or N-95 respirator (in combination with eye protection above)
- PPE ensemble must ensure no skin or mucous membrane exposure
- Any potential contact with the decedent's blood, tissues, bodily fluids, contaminated clothing or linens, and/or exposure to aerosol generating procedures, requires PPE appropriate for DOH defined higher risk settings (see Appendix A)

## ***2. Scene Response and Transport***

### **2.1 Preparation for Transport:**

At the death scene, any medical intervention devices should remain in place. Do not attempt to remove anything from the body. Do not wash or clean the body. As soon as possible, wrap the body in a plastic shroud being careful to avoid contamination of the outside surfaces of the shroud with any bodily fluids. Once wrapped, the body and shroud should be placed in a leak-proof disaster pouch or body bag not less than 150  $\mu\text{m}$  (0.15 millimeters) thick. "Zipper-less seal" sealing containment bags or containment systems are preferred over "zipper-seal" body bags or disaster pouches. Once the body is sealed within the pouch or body bag, the remains should be placed in a second body bag not less than 150  $\mu\text{m}$  thick (0.15 millimeters), and sealed for transport. Soiled gloves should be changed immediately, if necessary, to prevent contamination of the second (outer) disaster pouch or body bag.

### **2.2 Scene Decontamination:**

Prior to transport, conduct a surface inspection and decontamination of the outer bag by removing visible soil and other contaminants on the external surfaces with EPA-registered disinfectants which can kill a wide range of non-enveloped viruses (such as a 0.5% chlorine solution). Follow the product's label instructions. If using chlorine solution, it must be prepared fresh. Once all of the visible soil has been removed, reapply the disinfectant to the entire bag surface and allow to air dry before transport.

Following the removal of the body, the surfaces in contact with the body and in the immediate area should be cleaned and disinfected by trained biohazards waste cleaning and removal companies. All reusable equipment should be cleaned and disinfected according to standard procedures. For more information on environmental infection control, please refer to *Interim*

*Guidance for Environmental Infection Control in Hospitals for Ebola Virus, found at:*  
<http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>

### **2.3 Transport Drivers:**

Provided the procedures outlined in this document are followed, PPE is not required for individuals driving or riding in a vehicle transporting human remains. However, drivers and riders should not handle bags containing infected human remains without appropriate PPE.

## **3. Mortuary Care**

### **3.1 General Guidelines:**

Funeral establishments, direct disposal establishments, removal services, and cinerator facilities should decline to take an engagement regarding the remains of an Ebola decedent, if such licensee is not confident they have the facilities and resources to fully comply with CDC and DOH guidelines regarding handling, processing, and final disposition of Ebola decedents.

When contacted to make a removal of Ebola decedent's remains from a hospital, the funeral establishment, direct disposal establishment or removal service should, where feasible, and in coordination with the decedent's family and the hospital, take a hermetically-sealable casket or leak-proof alternative cremation container (depending on whether final disposition is to be by burial or cremation) to the hospital when the removal crew initially does the removal; and then place the double bagged remains directly into the casket or alternative container. Hospitals should facilitate such procedure, if feasible. This will significantly reduce subsequent handling of the bagged remains.

The responsible funeral establishment should attempt, where feasible, to arrange with the family to take the remains directly from the hospital to the cemetery and conduct interment; or take the remains directly from the hospital to the cinerator facility and that facility's cooler, and make arrangements for the cinerator facility to conduct cremation, as soon as ME approval is obtained and the 48 hour statutory waiting period (if still applicable at that time) has elapsed.

There must be no embalming or viewing of an Ebola decedent. The family and other loved ones of the decedent should not be left alone in the presence of the Ebola decedent remains; there should always be a Chapter 497 staff member present to prevent contact by the family or loved ones with the body or body bag. The body bag must never be opened. Chapter 497 licensees must refuse a request by a family to open the body bag for an ID or other viewing, or for a final farewell, or for any other purpose. A memorial service with the Ebola decedent remains in a hermetically-sealed closed casket present is permissible, but not recommended.

The requirement that a body ID tag be attached to the body by the Chapter 497 licensee, or that there be a positive visual ID of remains, is NOT APPLICABLE to Chapter 497 licensees regarding Ebola decedents. Chapter 497 licensees should rely on the ID of the decedent as provided by the hospital. The Chapter 497 removal crew picking up the remains should attach an ID tag to the exterior of body bag, identifying the decedent based on information provided by the hospital. If the remains are placed directly into a casket or alternative container at the hospital, an additional ID tag should be attached to the exterior of the casket or alternative container.

Funeral establishments and direct disposal establishments approached to take an engagement regarding an Ebola decedent may, before accepting the engagement, want to conduct such preliminary inquiry as may be possible, concerning whether the decedent has any implanted devices such as a pacemaker or defibrillator. Such devices cannot be removed from an Ebola decedent. Unless the funeral establishment or direct disposal establishment can locate a cinerator facility willing to conduct a cremation with those devices in the body (with possibility of explosion during cremation), it will be necessary to use a hermetically-sealed casket and a burial, and this may result in significantly higher expenses if the family was contemplating cremation.

The casket used for burial of an Ebola decedent shall be a 20 gauge or thicker steel casket, with all seams continuous welded, and a gasketed lid with a built-in system for latching and tightening the lid. The casket must be one represented by the manufacturer to have been vacuum or pressure tested by the manufacturer at the factory and represented not to have leaked pressure during the test at the manufacturer's test pressure. The funeral director responsible for the final disposition of the Ebola decedent shall certify in the funeral establishment's case file, in a writing signed and dated by the funeral director, that the casket meets the above specifications and that the lid was closed and tightened in accordance with manufacturer's instructions as soon as the Ebola decedent was placed in the casket.

### **3.2 Key Points:**

- So long as there is no leakage of body fluids emanating from the body bags, all mortuary care personnel should wear PPE appropriate for lower risk settings, as described in Appendix A of this document, when handling the bagged remains.
- Infected bodies should not be embalmed. The risk of exposure to hemorrhagic fever viral agents is paramount over any possible benefit of embalming.
- Do not open the body bags.
- Do not remove remains from the body bags. Bagged remains must be placed into a rigid cremation box prior to being loaded into the cremation chamber.
- In the event of fluids leaking from the body bag, immediately switch to PPE appropriate for high risk settings. Then, thoroughly clean and decontaminate all soiled areas with EPA-registered disinfectants (such as a 0.5% chlorine solution), which can kill a broad

range of non-enveloped viruses in accordance with label instructions. If using chlorine solution, it must be prepared fresh.

- Reusable equipment should be cleaned and disinfected according to standard procedures (and manufacturer recommendations) or as delineated in Appendix A.
- For more information on environmental infection control, refer to CDC's Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus, found at <http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>.
- Note that any materials contaminated by leaking blood or bodily fluids, or used in the cleaning process must be stored and transported (only by those with special permits) as DOT Category A biohazardous waste. See appropriate DOH guidance and the CDC guidance document *Ebola-Associated Waste Management*, at <http://www.cdc.gov/vhf/ebola/hcp/medical-waste-management.html>.

## **4. Disposition of Infected Human Remains**

### **4.1 General Guidelines:**

- Infected human remains should be cremated in accordance with usual practice.
- Burial is possible in hermetically-sealed caskets.
- If the body has a pacemaker or implantable defibrillator, burial in a hermetically-sealed casket may be preferable. Such devices have been known to explode in the cremation process.
- Once the bagged body is placed in the sealed casket, no additional cleaning is needed unless leakage has occurred.
- No PPE is needed when handling the cremated remains or the hermetically-sealed closed casket.

### **4.2 Cremation**

- Properly cremated human remains have no communicable disease risk. Heating for 30-60 minutes at 60°C renders the virus inactive. Cremation temperature and duration far exceeds the physical inactivation limits of the virus (Mwanatambwe et al. 2001). Standard cremation temperatures are 760°C to 982°C (1400°F to 1800°F) for 1 to 2 hours.
- Upon completion of cremation, cremains are placed in an urn and may be returned to the next-of-kin. These ashes may be buried or scattered at the will of the next-of-kin.

### 4.3 Burial

- Burial of infected human remains is possible, but not recommended. Research has shown that the virus can remain active for up to 50 days in human tissue (Piercy et al. 2010)
- If burial occurs, the remains must be contained in a hermetically-sealed casket which is placed into a burial vault.
- Mausoleum interments should not occur.

### 4.3 Interstate and International Transport of Infected Human Remains:

- Local transport should be coordinated with relevant local and state public health authorities in advance so that they have knowledge of when and where transport will occur. Public health authorities should be apprised of any transport problems or deviations from planned routes and delivery of remains.
- Interstate transport should be coordinated with the CDC by calling the Emergency Operations Center at (770) 488-7100. If shipping by air is necessary, the remains must be labeled as dangerous goods in accordance with Department of Transportation regulations (49 Code of Federal Regulations 173.196).
- Transportation of remains infected with hemorrhagic viral pathogens outside the United States must comply with the regulations of the country of destination and should be coordinated in advance with relevant authorities.

## 5. References

Florida Statutes 2014, The Florida Senate. *Emergency management powers of the Governor. Chapter 252, Section 36.* <http://www.flsenate.gov/Laws/Statutes/2014/252.36>

Mwanatambwe, M., Yamada, N., Arai, S., Shimizu-Suganuma, M., Shichinohe, K., & Asano, G. (2001). Ebola hemorrhagic fever (EHF): mechanism of transmission and pathogenicity. *Journal of Nippon Medical School.* 68(5), 370-375.

Piercy, T.J., Smither, S.J., Steward, J.A., Eastaugh, L., Lever, M.S. (2010) The survival of filoviruses in liquids, on solid substrates and in a dynamic aerosol. *Journal of Applied Microbiology.* 109(5): 1531-9.

*Guidance for Safe Handling of Human Remains of Ebola Patients in U. S. Hospitals and Mortuaries.* Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of High-Consequence Pathogens and

Pathology (DHCPP), Viral Special Pathogens Branch (VSPB). October, 2014  
<http://www.cdc.gov/vhf/ebola/hcp/guidance-safe-handling-human-remains-ebola-patients-us-hospitals-mortuaries.html>

*Interim Infection Prevention and Control Guidance for Care of Patients with Suspected or Confirmed Filovirus Haemorrhagic Fever in Health-Care Settings, with Focus on Ebola.* Global Alert and Response. World Health Organization. August 2014.  
[http://www.who.int/csr/resources/publications/ebola/filovirus\\_infection\\_control/en/](http://www.who.int/csr/resources/publications/ebola/filovirus_infection_control/en/)

**Appendix A: Florida Department of Health Guidance Personal Protective Equipment (PPE) for Health Care Workers: Ebola Virus Disease (EVD)**



# NATIONAL ASSOCIATION OF MEDICAL EXAMINERS

Grants Full Accreditation  
of

District 6 Medical Examiner Office - Largo, Florida (#067-5543)

Inspected by and meets the Standards, Inspection, and Accreditation Criteria established by the National Association of Medical Examiners for providing and operating an effective Medicolegal Death Investigative System

Accreditation is granted for the period July 30, 2014 to July 30, 2019

GIVEN THIS 19<sup>th</sup> day of December, 2014



President

Inspector

Secretary-Treasurer

Chairman of Inspections Committee