



Florida Department of Health

**Ebola Virus Disease (EVD)
Laboratory Diagnosis**

**Focus Area: Collection, Packaging
and Shipping of Laboratory
Specimens**

Guidance document number 2014-3

**Ebola Virus Diagnostic Specimen Collection, Packaging and Shipping
Guidance for Laboratories and County Health Departments**

Version 3.0 October 14, 2014

Summary:

- **Authorization:** Contact your local County Health Department for authorization prior to collecting and shipping diagnostic specimens for Ebola Virus testing. Specimens will not be accepted without prior approval.
- **Specimen Collection:** Specimens should be collected following CDC's Interim Guidance for Specimen Collection, Transport, Testing, and Submission for Patients with Suspected Infection with Ebola Virus Disease (EVD). Adhere to the OSHA Blood-borne Pathogens Standards and wear appropriate personal protective equipment. Collect two lavender top EDTA tubes.
- **Packaging-for Shipments by Commercial Carrier:** It is recommended that all suspect Ebola diagnostic specimens be packaged according to IATA/DOT Packaging Instructions 620 for Category A agent which requires specimens be packed in a basic triple packaging system with a primary watertight container wrapped with absorbent material, secondary watertight container and an outer shipping package. Please consult with your County Health Department regarding the need for same day shipping.
- **Packaging-for Transport by Local Courier:** As above, specimens should be packaged in a basic triple packaging system which consists of a primary watertight container wrapped with absorbent material, secondary watertight container and an outer shipping package. Packages transported by local courier do not require Category A documentation.
- **Packaging-for Transport by Regional Emergency Response Advisor (RERA):** As above, specimens should be packaged in a basic triple packaging system which consists of a primary watertight container wrapped with absorbent material, secondary watertight container and an outer shipping package. Packages transported by RERA do not require Category A documentation.
- **Laboratory Requisition:** Complete and attach DOH Form 1847 and indicate "Ebola RT-PCR" in the "Comment/Additional Information" section in the lower right-hand corner of the form. Also complete the CDC Infectious Disease ([CDC Form 50.34](#)) and Viral Pathogens Special Branch (<http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf>) forms. All three forms should be included in the packaging between the secondary and outer package.

- **Checklist:** Ensure completion of the EVD Checklist prior to shipment and include a copy in the packaging between the secondary and outer package
- **Ship To:** Bureau of Public Health Laboratories-Miami
1325 N.W. 14th Avenue
Miami, FL 33125
Attention: Stephen White
- **For Additional Information:** Contact Stephen White at 305-325-2538 or 305-409-9925

Authorization

Contact your local County Health Department and refer to DOH [Decision Algorithm to Assist with Testing and Monitoring of Patients with Suspected Ebola Virus Disease \(EVD\)](#) and the [Ebola Virus Diagnostic Specimen Submission Check List](#) prior to collecting any specimens from suspect Ebola cases. Specimens will not be accepted or tested without prior authorization.

Specimen Collection

- Specimen collection should be performed following standard precautions. Wear appropriate personal protective equipment (PPE) at all times while collecting and handling specimens. Current recommendations for specimen collection include full face shield or goggles, masks to cover all of nose and mouth, gloves, fluid resistant or impermeable gowns. Additional PPE may be required in certain situations.
- Collect 2 blood specimens following the CDC Interim Guidelines found at <http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>
- Collect specimens in plastic lavender top EDTA blood specimen tubes. At least 4ml of blood should be collected per tube. DO NOT collect samples in glass tubes or tubes containing heparin.
- Store samples at 4°C until shipment.

Packaging Requirements and Shipping Requirements

Specimens collected for EVD testing should be packaged and shipped without attempting to open collection tubes or aliquot specimens.

Shipping by Commercial Carrier

General Requirements

- We recommend that you package the specimens as a Category A agent using United States Department of Transportation (DOT) Packaging Instructions 620 for Category A Agents which requires specimens be packed in a basic triple packaging system with a primary watertight container wrapped with absorbent material, secondary watertight container and an outer shipping package.

- Remember, to ship Category A substances you **MUST** have attended a Category A training session within the last two years. Infectious substances require a Shipper's Declaration for Dangerous Goods.
- The Consignee section of the Shipper's Declaration for Dangerous Goods must include a name and phone number for the person responsible for the shipment.
- Proper shipping names must be indicated on the outside of the package; for UN 2814 - Infectious Substance Affecting Humans and for UN 2900 - Infectious Substance Affecting Animals.
- Technical names may be omitted from the proper shipping name on the outside of the package.
- On the Shipper's Declaration for Dangerous Goods write "Suspected Category A Agent" in parenthesis following the proper shipping name.
- The Additional Handling Information box on the Shipper's Declaration for Dangerous Goods must include an emergency telephone number.
- Enclose an itemized list of contents between the secondary packaging and the outer packaging.
- Package on cold packs.
- If consultation regarding same day shipping is needed, please contact the Bureau of Public Health Laboratories (BPHL).

Inner Packaging Requirements

- Primary receptacle(s) must be watertight.
- Secondary receptacle must be watertight.
- An itemized list of the contents enclosed between the secondary receptacle and the outer packaging.
- Absorbent material must be placed between the primary receptacle(s) and secondary receptacle and be of sufficient quantity to absorb the entire contents of the primary receptacle(s).

Outer Packaging Requirements

- Package must be rigid.
- Package must be at least four inches in the smallest overall external dimension.
- Package must be properly labeled.
- Package must pass required testing and be marked with UN marking for CLASS 6.2.

Packaging Requirements-Transport by Local Courier

Package specimens in combination packaging according to 49 CFR 173.6(a)(4).

<http://www.gpo.gov/fdsys/pkg/CFR-2011-title49-vol2/pdf/CFR-2011-title49-vol2-sec173-6.pdf>

General Packaging Requirements

- Packaging must coincide with 29 CFR 1910.1030 and specimens should be packed in a basic triple packaging system with a primary watertight container wrapped with absorbent material, secondary watertight container and an outer shipping package.
- Enclose an itemized list of contents between the secondary packaging and the outer packaging.

- Package on cold packs.

Inner Packaging Requirements

- Primary receptacle(s) must be watertight.
- Secondary receptacle must be watertight.
- An itemized list of the contents enclosed between the secondary receptacle and the outer packaging.
- Absorbent material must be placed between the primary receptacle(s) and secondary receptacle and be of sufficient quantity to absorb the entire contents of the primary receptacle(s).

Outer Packaging Requirements

- Package must be rigid, with strong packaging, to secure against shifting.

Transport by Florida Department of Health Regional Emergency Response Advisor (RERA):

Packaging requirements are the same as above for transport by local courier.

- After authorization for specimen testing has been obtained, the Bureau of Public Health Laboratories in collaboration with the hospital, the County Health Department, and/or the Bureau of Preparedness and Response (BPR) may determine to have the Department's RERAs transport the specimen to ensure rapid and safe delivery of samples to the laboratory. In this case, Bureau of Public Health Laboratory staff will contact the RERA in the region of the specimen origin using the following contact information.

Eric Gilmore

Region 1

Mobile: 850-777-6344

Sam MacDonell

Region 2

Office: 850-606-8163

Mobile: 850-528-1181

Sandi Courson

Region 3

Mobile: 904-626-1674

Hunter Zager

Region 4

Mobile: 813-363-0074

David Crowe

Region 5

Mobile: 321-689-9464

Brett Slocum

Region 6

Mobile: 850-251-5226

Freda Vaughn

Region 7

Mobile: 954-702-0691

- The RERA verifies that the Ebola Virus Diagnostic Specimen Submission Check List has been completed by hospital before transporting sample. The RERA will not transport sample unless the Ebola virus Diagnostic Submission Check List has been completed and signed by Infection Control Practitioner.
- The hospital representative relinquishing the sample to the RERA will sign a RERA Transportation and Tracking form indicating they are relinquishing the sample to the RERA.
- The originating RERA will pick up the sample and notify the destination laboratory, at this time the Bureau of Public Health Laboratories Miami. The originating RERA will transport to the next RERA. Each preceding RERA is responsible for coordinating with the next RERA if multiple RERAs will be used to transport the sample to its final destination.
- If multiple RERAs are used, each RERA will sign off that they are now in possession of the package and will contact the destination laboratory to indicate status of package.
- The destination laboratory will sign the RERA's Transportation and Tracking form indicating that package has been delivered.

Laboratory Requisition

- Complete DOH Form 1847 for each specimen and indicate "Ebola RT-PCR" in the "Comment/Additional Information" section in the lower right-hand corner of the form. This form can be found at <http://www.floridahealth.gov/programs-and-services/public-health-laboratories/forms-publications/documents/DH1847.pdf>.
- Also complete the CDC Infectious Disease Form ([CDC Form 50.34](http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf)) and the 2 page form (<http://www.cdc.gov/ncezid/dhcpp/vspb/pdf/specimen-submission.pdf>) for the Viral Special Pathogens Branch.
- All three forms should be included in the packaging between the secondary and outer package.
- **Checklist:** Complete an EVD Checklist prior to shipment and include a copy in the packaging between the secondary and outer package along with the 3 forms listed above.

Ship Specimens To: Bureau of Public Health Laboratories-Miami
1325 N.W. 14th Avenue
Miami, FL 33125
Attention: Stephen White

Notification: On shipment of a specimen for a suspect EVD patient for EVD testing at BPHL, please notify Stephen White or Aaron Monroy with Miami BPHL (see below for contact information). Provide the shipping tracking number if being shipped commercially.

For Additional Information:

On Submitting Specimens for Ebola Testing: Contact your local County Health Department.

Contacts for Laboratory Questions:

Stephen White, Bureau of Public Health Laboratories at 305-325-2538 or 305-409-9925

Aaron Monroy, Bureau of Public Health Laboratories at 305-325-2537 or 305-797-5882

For more information on DOT Shipping regulations:

https://hazmatonline.phmsa.dot.gov/services/publication_documents/Transporting%20Infectious%20Substances%20Safely.pdf

On specimen collection and handling: see the CDC guidance at

<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>

Updates and other CDC guidance is available at

<http://www.cdc.gov/vhf/ebola/>