

HOW TO SHIP SPECIMENS TO NYSDOH WADSWORTH CENTER LABORATORY

FOR TESTING FOR DETERMINATION OF EXPOSURE TO CHEMICAL TERRORISM AGENTS

These guidelines are intended for samples collected throughout New York State,
excluding the 5 boroughs of New York City

Specimens should not be collected and/or shipped to Wadsworth Center without the prior approval of Wadsworth Center staff or without prior arrangements being made with Wadsworth Center staff for receipt of samples. Please contact Wadsworth Center laboratories before submitting any specimens to verify laboratory response capability. Special specimen handling and receipt procedures may be necessary.

To contact Wadsworth Center: Call 518-474-7161 during business hours, Monday – Friday, 8AM – 5PM, OR 866-881-2809 for the Public Health Duty Officer at all other hours

The Wadsworth Center retains the right to refuse to accept specimens it determines cannot be safely handled within its facilities. In this case, Wadsworth Center staff will refer the field staff to other facilities which might be able to safely handle the materials to be collected.

PACKAGING

Following blood and urine specimen collection from persons potentially exposed to chemical terrorism agents, pack and ship these specimens as **category B infectious substances**.

Packaging consists of three components: primary receptacle (blood tubes or urine cups), secondary packaging (materials for protecting primary receptacles, absorbent material, and waterproof, 95 kPa pressure resistant packaging), and outer packaging (polystyrene foam-insulated corrugated, fiberboard shipper).

PREPARING DOCUMENTATION

- Since blood tubes and urine cups cannot be shipped together in the same package, prepare a separate shipping manifest for each

HOW TO PACKAGE BLOOD SPECIMENS

(Also refer to Flowchart: *Instructions for Shipping Blood Specimens to CDC after a Chemical-Exposure Event*)

Secondary Packaging

- To facilitate processing, package blood tubes by patient number (i.e., package all specimens from the same patient together)
- Place absorbent material between the blood tubes and the first layer of secondary packaging. Use enough absorbent material to absorb the entire contents of the blood tubes
- Separate each tube of blood collected from other tubes, or wrap tubes to prevent tube-to-tube contact. Regardless of the method used, the first layer of secondary packaging must be secured with one continuous strip of evidence tape and initialed half on the tape and half on the first layer of secondary packaging by the person making the seal. Examples of some ways to do this are to—
 - Pack blood tubes in a gridded box lined with absorbent material. Seal the top half of the box to the bottom half with one continuous piece of evidence tape and write your initials half on the tape and half on the box.
 - Pack a sealable polystyrene foam container or blood tube shipment sleeve and transport tube with individually wrapped tubes. Seal the polystyrene foam container or transport tube with one continuous piece of evidence tape and write your initials half on the tape and half on the container.
- Wrap and seal the first layer of secondary packaging (i.e., gridded box) with absorbents
- Seal one wrapped gridded box or alternative container inside a clear, leak-proof biohazard polybag equivalent to Saf-T-Pak product STP-701, STP-711 or STP-731
- Place this bag inside a white Tyvek® outer envelope (or equivalent) and seal the opening with a continuous strip of evidence tape initialed half on the packaging and half on the evidence tape by the individual making the seal
- According to 49 CFR 173.199(b), if specimens are to be transported by air, either the primary receptacle or the secondary packaging used must be capable of withstanding, without leaking, an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar, 14 psi). Verify in advance that the manufacturer of either the blood tube or secondary packaging used in your facility is in compliance with the pressure differential requirement

Outer Packaging

- Use polystyrene foam-insulated, corrugated fiberboard shipper (may be available from your transfusion service or send-outs department)
- For cushioning, place additional absorbent material in the bottom of the shipper
- Add a single layer of refrigerator packs on top of absorbent material
- Place the packaged boxes of specimens on top of the refrigerator packs
- Use additional cushioning material to minimize shifting while the shipper is in transit
- Place additional refrigerator packs on top of the secondary packaging to maintain a shipping temperature of 1° C-10° C for the duration of transit
- Enclose *Request for Chemical Analysis: Clinical Specimens* form and the shipping manifest in a sealable plastic bag and place on top of refrigerator packs inside the shipper
- Close lid of shipper and secure with filamentous shipping tape
- Place your return address in the upper left-hand corner of the shipper and place Wadsworth Center's receiving address in the center

- Affix labels and markings adjacent to the shipper's/consignee's address that appears on the shipper
- Place a UN 3373 diamond marking on the shipper. Place the proper shipping name "Biological Substance, Category B" adjacent to the UN 3373 label.
- Orientation arrows are not required
- If the shipper will be transported by a commercial air carrier, complete an airway bill. On the airway bill, note the proper shipping name and UN number for each hazardous material and identify a person responsible for the shipper per IATA packing instruction 650
- Keep chain-of-custody documents for your files

HOW TO PACKAGE URINE SPECIMENS

(Also refer to Flowchart: *Instructions for Shipping Urine Specimens to CDC after a Chemical-Exposure Event*)

Secondary Packaging

- Separate each urine cup from other urine cups, or wrap individual urine cups to prevent contact between them. Regardless of the method used, the first layer of secondary packaging must be secured with one continuous strip of evidence tape and initialed half on the tape and half on the first layer of secondary packaging by the person making the seal. Examples of some ways to do this are to—
 - Pack urine cups in a gridded box lined with absorbent material. Seal the top half of the box to the bottom half with one continuous piece of evidence tape and write your initials half on the tape and half on the box
 - Seal individually wrapped urine cups inside a clear, leak-proof biohazard polybag equivalent to Saf-T-Pak product STP-701, STP-711 or STP-731. Secure the closure of the bag with one continuous strip of evidence tape initialed half on the tape and half on the bag by the person making the seal
- Place urine cups (boxed or individually wrapped and secured properly with evidence tape) in the next layer of secondary packaging. An example of acceptable material is the Saf-T-Pak Disposable 2-Part Pressure Vessel system or its equivalent
- Outermost layer of secondary packaging must have its closure secured with a single strip of evidence tape initialed half on the packaging and half on the evidence tape by the person making the seal
- According to 49 CFR 173.199(b), if specimens are to be transported by air, either the primary receptacle or the secondary packaging used must be capable of withstanding, without leaking, an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar, 14 psi). Verify in advance that the manufacturer of either the urine cup or secondary packaging used in your facility is in compliance with the pressure differential requirement

Outer Packaging

- Use polystyrene foam-insulated, corrugated fiberboard shipper (may be available from your transfusion service or send-outs department)
- For cushioning, place additional absorbent material in the bottom of the shipper
- Place a layer of dry ice on top of the absorbent material. Do not use large chunks or flakes of dry ice for shipment because large chunks have the potential for shattering urine cups during transport
- Ensure that specimens will remain frozen or will freeze during transport

- Place packaged urine cups in the shipper
- Use additional absorbent or cushioning material between wrapped urine cups to minimize shifting while shipper is in transit
- Place an additional layer of dry ice on top of specimens
- Enclose *Request for Chemical Analysis: Clinical Specimens* form and the shipping manifest in a sealable plastic bag and place on top of dry ice inside the shipper
- Close lid of shipper and secure with filamentous shipping tape
- Place your return address in the upper left-hand corner of the shipper and place Wadsworth Center's receiving address in the center
- Affix labels and markings adjacent to the shipper's/consignee's address that appears on the shipper
- Place a UN 3373 diamond marking on the shipper. Place the proper shipping name "Biological Substance, Category B" adjacent to the UN 3373 label.
- Place a Class 9/UN 1845 hazard label on the same side of the shipper as the UN 3373 marking
- If the proper shipping name, (either "dry ice" or "carbon dioxide, solid") and Class 9/UN 1845 is not preprinted on the hazard label, add it in an area adjacent to the label
- Note the weight of dry ice (in kg) on the preprinted area of the hazard label, or place that information adjacent to the Class 9/UN 1845 hazard label
- Orientation arrows are not required
- If the shipper will be transported by a commercial air carrier, complete an airway bill. On the airway bill, note the proper shipping name and UN number for each hazardous material and identify a person responsible for the shipper per IATA packing instruction 650
- Keep chain-of-custody documents for your files

CHAIN-OF-CUSTODY PROCEDURES

- Do not transport chain-of-custody forms with specimens. Each entity or organization handling the specimens is responsible for the specimens only during the time that it has control of the specimens
- Each entity or organization receiving the specimens must sign-off on the chain-of-custody form of the entity or organization relinquishing the specimens to close that chain. Electronic procedures such as electronic chain-of-custody and barcode readers will expedite this process
- When receiving specimens, each new entity or organization must begin its own chain of custody. The entity or organization relinquishing the specimens must sign its chain of custody to close the chain and indicate that they have transferred the specimens

NOTE: When the person relinquishing the specimens (relinquisher) and the person receiving the specimens (receiver) are not together at the time of specimen transfer, the relinquisher must document on its chain-of-custody form that the receiver is the express courier (e.g., FedEx, Delta Dash, DHL, UPS) and must document the shipment tracking number or have the person transporting the specimens sign the chain-of-custody to indicate that he or she has taken control of the specimens. Likewise, when receivers get the specimens, they will document on their chain-of-custody form that the relinquisher is the express courier (and provide the tracking number) or have the person transporting the specimens sign the chain-of-custody form.

SHIPPING SPECIMENS

Follow the guidance provided in your state's chemical terrorism comprehensive response plan

- If you are directed to ship specimens to NYSDOH Wadsworth Center Laboratories, use the following address:

Wadsworth Center
 NYS Department of Health
 Room D421
 Dock J - P1 Level
 Empire State Plaza
 Albany, NY 12237

- If you are directed to ship specimens to CDC, use the following address:

Centers for Disease Control and Prevention
 Attn: Lt. Ernest McGahee
 4770 Buford Highway
 Building 110 Loading Dock
 Atlanta, GA 30341

QUESTIONS

If you have any questions or problems with sample packaging or shipment to the Wadsworth Center, use the contact information below:

- Business Hours
 - Dr. Ken Aldous, Director, Division of Environmental Disease Prevention, 518-474-7161
 - Dr. George Frame, Chemical Terrorism Laboratory Director, 518-474-8383
- Non-Business Hours
 - After-hours Public Health Duty Officer, 866-881-2809

If you have any questions or problems with sample packaging or shipment to CDC, use the contact information below:

Centers for Disease Control and Prevention, National Center for Environmental Health,
 Division of Laboratory Sciences

- Philip Holt, Incident Response Laboratory Coordinator
 E-mail: PHolt@cdc.gov Office Phone: 770-488-7532 / Mobile Phone: 678-525-2683
- Cecelia Sanders, Chemical Emergency Response Team Leader
 E-mail: CSanders@cdc.gov Office Phone: 770-488-4034 / Mobile Phone: 770-294-4124