



## Shipping Instructions for Samples Collected from People Potentially Exposed to Chemical Terrorism Agents

### Collecting specimens

#### *Required specimens*

Unless you are otherwise directed, collect the following specimens from each person who may have been exposed:

- **Urine—Collect 25 mL.** Use a screw-capped plastic container. **Freeze as soon as possible** ( $-70^{\circ}$  C or dry ice preferred). If possible, ship the specimen on dry ice. If dry ice is not available, you may ship frozen samples with freezer packs. **For pediatric patients, collect urine only, unless otherwise directed by CDC.**
- **Whole blood—**Use three 5- or 7-mL purple-top (EDTA) tubes, vacuum-fill only (**unopened**).
- **Whole blood—**Use one 5- or 7-mL gray-top **or** one 5- or 7-mL green-top tube, vacuum-fill only (**unopened**).

#### *Order of collection*

Please mark the first EDTA tube of whole blood collected with a “1” using indelible ink. The first EDTA tube of whole blood collected will be used to analyze for blood metals.

#### *Blanks*

For **each lot number** of tubes and urine cups used for collection, please provide two unopened purple-top tubes, two unopened green- or gray-top tubes, and two unopened urine cups to serve as blanks for measuring background contamination.

### Labeling

Label specimens with labels generated by your facility. These labels may include the following information: medical records number, specimen identification number, collector’s initials, and date and time of collection. **Follow your facility’s procedures for proper sample labeling.**

Information provided on labels may prove helpful in correlating the results obtained from the Rapid Toxic Screen and subsequent analysis with the people from whom the samples were collected.

Maintain a list of names with corresponding sample identification numbers at the collection site to enable results to be reported to the patients.

## **Packaging**

Pack and ship these samples as diagnostic specimens. Wrap each sample top with waterproof, tamper-evident forensic evidence tape, being careful not to cover the sample ID labels.

### *Secondary packaging*

#### **Blood Tubes—**

- Separate each tube of blood collected from other tubes, or wrap tubes to prevent contact between tubes.
- Place tubes in secondary packages. A variety of secondary packages may be used, for example, gridded box wrapped with absorbent material and sealed inside a plastic bag, sealable Styrofoam container, blood tube shipment sleeve and transport tube, and individually wrapped tubes sealed inside a plastic bag.
- Place absorbent material between the primary receptacle and the secondary packaging. Use enough absorbent material to absorb the entire contents of primary receptacles. **According to 49 CFR 173.199(b), the secondary packaging used must be capable of withstanding without leakage an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar, 14 psi).**
- To facilitate processing, package blood tubes so that similar tubes are packaged together (e.g., all purple-tops together) and not mixed (i.e., purple-tops and green/gray-tops in the same package).

**Urine Cups—**Wrap frozen urine cups with absorbent material and place them into sealable secondary packaging, such as a sealable plastic bag, that complies with the requirements stated in 49 CFR 173.199(b).

### *Outer containers*

Use Styrofoam-insulated corrugated fiberboard containers (may be available from your transfusion service or send-outs department). **Do not ship frozen urine cups and blood tubes in the same package.**

#### **Blood tubes—**

- For cushioning, place additional absorbent material in the bottom of the outer container.
- Add a layer of frozen cold packs.
- Place secondary containers on top of the cold packs.

- Place additional cold packs or absorbent material between the secondary containers to reduce their movement within the outer container.
- Place a layer of frozen cold packs on top of the secondary containers.

#### **Urine cups—**

- For cushioning, place additional absorbent material in the bottom of the outer container.
- **Add a layer of dry ice. Note:** Do not use large chunks of dry ice for shipment, because large chunks have the potential for shattering urine cups during transport.
- Place additional absorbent material between wrapped urine cups to reduce their movement within the outer container.
- **Add an additional layer of dry ice.**

### **Preparing documentation**

**Since blood tubes and urine cups are shipped separately, prepare a separate shipping manifest for each.** Place each shipping manifest (with sample identification numbers) in a plastic zippered bag on top of the specimens before closing the Styrofoam lid of the corrugated fiberboard container.

**Separate chain-of-custody forms must also be prepared for blood tubes and urine cups.** Include a chain-of-custody form for each set of samples collected from an individual patient (i.e., one chain-of-custody form for each set of four blood tubes), not for each tube collected. Place the completed chain-of-custody forms in a plastic zippered bag on top of the Styrofoam lid of the corrugated fiberboard container.

### **Preparing containers for shipment**

- Secure outer container tops and bottoms with filamentous shipping/strapping tape.
- Affix labels and markings adjacent to the shipper's/consignee's address that appears on the package.
- Ensure that two orientation arrows are located on two opposite sides of the outer container.
- Place a label on the outer container that indicates the proper name, "Diagnostic Specimens."
- For those containers with dry ice, place a class 9 label on the outer container. This label must indicate the amount of dry ice in the container, the address of the shipper, and the address of the recipient (in the absence of a shipper's declaration of dangerous goods). This label **must** be placed on the same side of the container as the "Diagnostic Specimens" label.

## Shipping specimens

- Follow the guidance provided in your state's chemical terrorism comprehensive response plan.
- If you are directed to ship the specimens to CDC, please ship the samples to the following address:

CDC  
Attn: Dr. Richard Meyer  
1600 Clifton Road, NE  
Bldg. 8/9  
Atlanta, GA 30333  
(888) 374-1764

## Questions

If you have any questions or problems with sample packaging or shipment, please e-mail or call one of the following contacts at the CDC's National Center for Environmental Health, Division of Laboratory Sciences (DLS):

- Charles Buxton, DLS Chemical Terrorism Field Laboratory Coordinator  
[cbuxton@cdc.gov](mailto:cbuxton@cdc.gov), [7243001194@pagebb.com](tel:7243001194) (text), or 888-461-6713 (voice or numeric)
- Dr. John Osterloh, DLS Chief Medical Officer, 770-488-7367
- DLS administrative office, 770-488-7950