Clinical Testing Following A Suspected Chemical Exposure Event

Business Hours M-F 8 am – 5 pm Limited services available after hours and on weekends.

Utah Public Health Laboratory 4431 S 2700 W Taylorsville, UT 84129 801-965-2400

24-Hour **Chemical Threat Emergency** UPHL: 1-801-971-3083 CDC: 1-770-488-7100

Important: If you suspect exposure to a chemical agent, contact the Utah Public Health Laboratory or the CDC to obtain important information regarding specimen collection and shipment.

Step 1: Collection

Blood-Sample Collection

For each person, collect blood in glass or plastic tubes in the following order:



Mix contents of tubes by inverting them 5 or 6 times.



After collecting samples in the purple-top tubes, collect one (1) sample in a non-gel gray- or green-top tube. Allow the tube to fill to its stated capacity.

Mix contents of tube by inverting it 5 or 6 times. 5





Labels on the tube should convey the collector's initials, date and time of collection. Place barcoded labels on the tube, so that when the tube is upright, the barcode looks like a ladder.





Urine-Sample Collection

For each person, collect 40 mL – 60 mL of urine in a screw-cap urine cup:

Note: For children, collect only urine samples unless otherwise directed by CDC.

Label the urine cup with the appropriate bar-coded label. Indicate on the cup how the sample was collected if the method was other than "clean catch" (i.e., catheterizaton). Place bar-coded labels on all cups so that when the cup is upright, the barcode looks like a ladder.

Freeze samples as soon as possible (optimally at -70°C or dry ice preferred).

Chain-of-Custody (COC): Begin chain-of-custody forms and keep with specimens at all times.

Step 2: Packaging & Documentation

Pack & Ship Clinical Specimens as Category B Infections Substances

Blood Specimens

Urine Specimens

Blood Tube (Non-Gel): **Primary** Receptacle

3mL or larger purple-top 3mL or larger gray-/green-top

Secondary Packaging Materials for

protecting primary absorbent material, and waterproof, 95kPa pressure resistant packaging.

Keep blood tubes separated, or wrap tubes to prevent contact between them.

Blanks: Two (2) empty, unopened purpletop tubes AND Two (2) empty, unopened receptacles, green- or gray- top tubes.

> Place specimens secondary in packaging. Package blood tubes by patient number so that all specimens from the same patient are together.

> Add absorbent material (enough to absorb entire contents of all tubes





Urine Cup: Sterile, plastic, screw-capped

Keep urine cups separated, or wrap cups to prevent contact between them.

Blanks: Two (2) empty, unopened urine cups.



Place specimens in secondary packaging.

first of secondary Secure layer packaging with a single strip of evidence tape initialed $\frac{1}{2}$ on the container and $\frac{1}{2}$ on the tape by the person making the seal.



first layer of secondary Secure packaging with a single strip of evidence tape initialed $\frac{1}{2}$ on the container and $\frac{1}{2}$ on the tape by the person making the seal.

Wrap and seal first layer of secondary packaging with absorbent material.

Place into additional layer(s) of secondary packaging (if necessary) and secure outermost layer with a single strip of evidence tape initialed 1/2 on the container and $\frac{1}{2}$ on the tape by the person making the seal.



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Outer Packaging

Polystyrene foaminsulated corrugated fiberboard shippers. Do not ship blood tubes and frozen urine cups in the same package.

Ship at 1°C-10°C Place absorbent material in the bottom of the shipper.

Add a layer of refrigerator packs.

Place secondary packaging on top of refrigerator packs.

Add additional cushioning material to minimize shifting during transport.

Add an additional layer of refrigerator packs.







Ship to ensure specimens remain frozen or freeze while in transport Place absorbent material in the bottom of shipper.

Add a layer of dry ice (Do not use large chunks/flakes).

Place secondary packaging on top of dry ice.

Add additional cushioning material to minimize shifting during transport.

Add an additional layer of dry ice.

Since blood tubes and urine cups are shipped separately, prepare a **Documentation** separate shipping manifest for each.

> Place shipping manifest in a sealable plastic bag on top of specimens before closing lid of shipper.



Step 3: Shipping Preparations

Secure outer packaging tops and bottoms with filamentous shipping tape.

Affix labels and markings adjacent to the shippers/consignees' address.

Place a UN3373 diamond marking on the shipper.

Place the proper shipping name, "Biological substance, Category B" adjacent to the UN3373 marking.

For packages containing dry ice, place a Class 9/UN 1845 Hazard Label on the same side of the shipper as the UN3373 marking. If the proper shipping name, either "dry ice" or "carbon dioxide solid," and UN1845 is not preprinted on the hazard label, add it adjacent to the label. Note the weight of the dry ice on the preprinted area of the hazard label.

Orientation arrows are not required. Complete an airway bill if transported by a commercial air carrier.

Step 4: Shipping Specimens

Notify laboratory regarding shipment and ship to: **Utah Public Health Laboratory** 4431 S 2700 W Taylorsville, UT 84129 ATTN: Chemical Threat (CT) Team (801) 971-3083

Maintain proper COC of specimens http://emergency.cdc.gov/labissues/specimens shipping instructions.asp

