CDC Specimen-Collection Protocol for a Chemical-Exposure Event

For detailed instructions see CDC’s Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical Agents.

Collect blood and urine samples for each person involved in the chemical-exposure event.

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

Blood-Sample Collection
For each person, collect blood in glass or plastic tubes in the following order: 1st: collect specimens in three (3) EDTA (purple-top) 4 mL or larger plastic or glass tubes; 2nd: collect another specimen in one (1) gray- or green-top tube. Collect the specimens by following the steps below:

1. Collect a minimum of 12 mL of blood in three (3) 4 mL or larger glass or plastic tubes. If using 3 mL tubes, use four tubes.

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

3. Place bar-coded labels on each tube, so that when the tubes are upright, the barcode looks like a ladder.

Blood Sample: Store samples at 1°C to 10°C. Do not freeze.

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

4. Do not use gel separators.

Urine-Sample Collection
For each person, collect 40 mL- 60 mL of urine in a screw-cap urine cup.

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

6. Place bar-coded labels on the tube, so that when the tube is upright, the barcode looks like a ladder.

Urine Sample: Store samples at 1°C to 10°C. Do not freeze.

Label the urine cup with the appropriate bar-coded label as shown. Indicate on the cup how the sample was collected if the method was other than “clean catch” (i.e., catheterization).

Freeze samples (optimally at -70°C).