

# Specimen Collection & Preparation Guidelines



# What's in Your CRL Collection Kit

- CRL WorkCare Aromatics Box
- 7 Collection Tubes
- CRL Biohazard Collection Pouch
- FedEx Return Label
- FedEx Small Clinical Pak

# Specimen Collection Instructions

Your step-by-step guide to specimen collection for WorkCare

## Step 1

Fill in the patient information portion of the CRL clinical requisition form. Locate either Encounter number (ENC) or CVID number from the WorkCare Authorization (upper right-hand corner for “Encounter”; lower right-hand corner for “CVID”). Handwrite this information in the space allotted on the bottom of the CRL clinical requisition.

## Step 2

Add patient DOB to barcoded labels, peel off and transfer the barcoded labels from CRL clinical requisition form to each of the tubes in the order noted in the slides to follow.

## Step 3

Collect blood in the SST (Tiger Top), Green Top, Royal Blue Top, and Lavender Top Tube.

# Specimen Collection Instructions

Your step-by-step guide to specimen collection for WorkCare

## Step 4

Collect urine specimen from patient in either sterile collection cup or toxicology “split kit” if drug screen is also required.

- 4.1 Fill Yellow Top transfer tube to the “max fill” line for Urinalysis. **NOTE: This tube contains preservative and CANNOT be used for Heavy Metal Urine Testing.**
- 4.2 Pour remaining urine into the “Metal Free” Urine tube. **MUST FILL TUBE COMPLETELY.** Seal tightly.

## Step 5

Place all tubes into a segmented absorbent pouch in the CRL Biohazard bag (specimen bag).

- 5.1 Fold and place CRL clinical requisition form in the Biohazard bag in the pouch without the absorbent. Remove the bag's adhesive strip, fold over the opening, and seal tightly. Place the filled Biohazard bag into the cardboard Collection Kit Box.
- 5.2 Place cardboard Collection Kit Box into the FedEx Clinical Labpak, seal Pak and place FedEx shipping label in designated spot on Pak.

## Tube Collection Order - Recommended Order of Draw

### Blood Sample Collection – Required Tubes

1. **Red-Grey (Marble) Top** – contains clot activator with gel separator in the bottom, for collection of serum samples
2. **Red Top** – contains no anticoagulant, for collection and pour off of serum samples
3. **Green Top** – contains sodium heparin for hematology and chemistry samples [Benzene]
4. **Royal Blue Top** – may contain sodium heparin for trace metal studies [Heavy metal blood, Lead and ZPP]
5. **Lavender Top** – contains EDTA (ethylenediaminetetra-acetate) for collection of hematology and hemoglobin analysis samples [CBC, HgA1C, hematology & hemoglobin analysis, Blood Type, G6PD1]

### Urine Sample Collection

1. **Yellow Top** – for urinalysis only
2. **White/Clear Top** – for urine testing of heavy metals only





# Blood Sample Collection – Required Tubes

Recommended order of draw & instructions for collection

**1. Red-Grey (Marble) Stopper** (serum Gel Separator) Tube contains clot activator with gel separator in the bottom, for collection of serum samples

- Fill tube completely
- Gently invert eight (8) to ten (10) times
- Allow tube to clot for thirty (30-60) minutes at room temperature.
- Centrifuge clotted tube upright for fifteen (15) minutes at 2000 rpm.
  - Caution: Do not spin for more than 15 minutes as hemolysis may occur.
- Transfer serum to red capped transfer tube (be careful not to transfer red blood cells).
- Discard Red-Grey Stopper tube after transfer.
- NOTE: Testing will not be performed on tubes:
  - received containing less than 1 ML of blood. and/or
  - un-centrifuged



# Blood Sample Collection – Required Tubes

Recommended order of draw & instructions for collection

**2. Red Top** – contains no anticoagulant, for collection and pour off of serum samples

- Fill tube completely.
- Allow tube to clot for 30-60 minutes at room temperature.
- Centrifuge clotted tube for ten (15) minutes at high speed.
- Transfer serum to green capped transfer tube (be careful not to transfer red blood cells)
- Discard red stopper tube after transfer
- NOTE: Testing will not be performed on tubes received un-centrifuged or collected in Gel clot tube

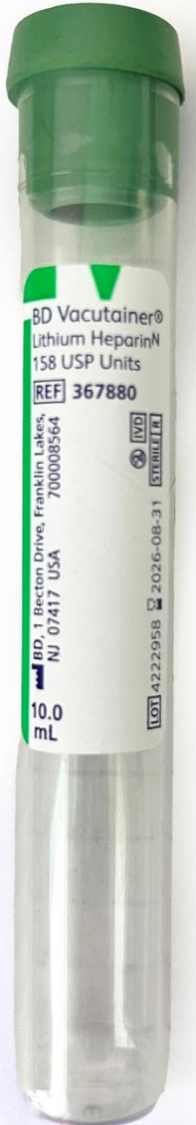


# Blood Sample Collection – Required Tubes

Recommended order of draw & instructions for collection

## 3. Green Top – contains sodium heparin for hematology and chemistry samples

- Mix tube thoroughly by gentle inversions eight (8) to ten (10) times immediately after blood is collected to prevent clotting.
- Avoid vigorous shaking to avoid hemolysis of cells.
- Do not centrifuge or transfer to another tube.
- NOTE: Testing may not be able to be completed on tubes containing less than one (1) ml of blood.



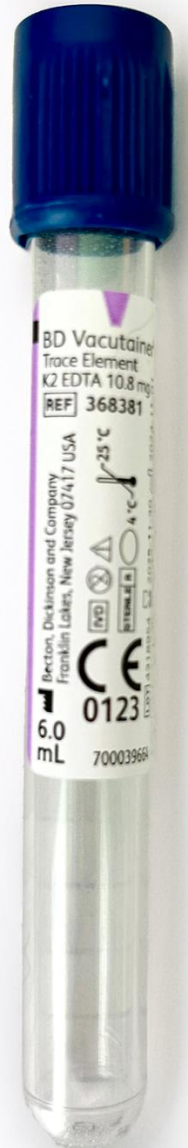


# Blood Sample Collection – Required Tubes

Recommended order of draw & instructions for collection

**4. Royal Blue Top (EDTA) tube (Heavy Metal Testing)** – may contain sodium heparin for trace metal studies

- Use a royal blue top trace element K2 EDT tube. Other royal blue top tubes may contain a different additive or no additive at all.
- Mix tube thoroughly by gentle inversions eight (8) to ten (10) times immediately after blood is collected to prevent clotting.
- Avoid vigorous shaking to avoid hemolysis of cells.
- Do not centrifuge or transfer to another tube.
- NOTE: Testing may not be able to be completed on tubes containing less than one (1) ml of blood.



# Blood Sample Collection – Required Tubes

Recommended order of draw & instructions for collection

**5. Lavender Top (EDTA)** contains (ethylenediaminetetra-acetate) for collection of CBC, A1C, hematology and hemoglobin analysis

- Mix tube thoroughly by gentle inversion eight (8) to ten (10) times immediately after blood is collected to prevent clotting.
- Avoid vigorous shaking to avoid hemolysis of cells.
- Do not centrifuge or transfer to another tube.
- NOTE: Testing may not be able to be completed on tubes containing less than one (1) ml of blood.





# Blood Sample Collection – Step-by-Step Process

- Verify employee identity and explain the procedure
- Use appropriate PPE (gloves, face mask, etc.)
- Clean puncture site with alcohol swab, let dry
- Apply tourniquet and locate a vein
- Insert needle and collect blood following the order of draw using instructions in previous slides
- Ensure each tube is filled to the required volume
- Gently invert tubes as required (do not shake)
- Apply pressure and bandage the site
- Label tubes immediately with employee details

# Blood Sample Handling & Preparation

- **Centrifugation:** If required, spin Serum Gel-Separator and plasma tubes per manufacturer guidelines, usually 15 minutes.
- **Storage:** Keep at room temperature or refrigerate as required
- **Packaging:** Use biohazard bags, seal properly, and label appropriately



# Urine Sample Collection – Required Containers & Procedures

- **Types of Urine Tests:**
  - Routine urinalysis
  - **Heavy Metals urine screen**
  - Drug screening (DOT and non-DOT)
- **Collection Instructions:**
  - Employee must provide a **midstream, clean-catch sample**
  - Use sterile urine cups with tamper-evident seals
  - Ensure minimum sample volume:
    - **Routine urinalysis:** At least 30 mL
    - **Drug screening:** At least 45 mL
  - Temperature check for **urine drug screens** (within 4 minutes of collection)
  - After collecting urine specimen in the cup provided, document urine temperature on the consent, if required, and pour off into the urine transport tubes provided.



# Urine Sample Collection – Required Containers & Procedures

## 1. Yellow top preservative transport tube (urinalysis only)

- Pour urine from the collection cup into the yellow top transport tube for urinalysis testing.
- **Fill to the “max fill” line**
- Testing may not be able to be completed on tubes with less than 4 ml of urine.
- **NOTE: This tube contains preservative and CANNOT be used for Heavy Metal Urine Testing.**



# Urine Sample Collection – Required Containers & Procedures

## 2. White/Clear screw top urine transport tube (heavy metals only)

- Pour remaining urine from the collection cup into the white screw top transport tube.
  - MUST FILL TUBE COMPLETELY. Seal tightly.
- Testing may not be able to be completed on tubes with less than 5 ml of urine
- Urine tubes with preservative cannot be used for heavy metal testing



# Urine Sample Handling & Preparation

- Seal the top of the non-barcoded urine tube(s) with security seal signed by donor
- Verify labeling matches employee identification
- Complete Chain of Custody Form for drug screenings
- Store as required: Refrigerate if not processed immediately

# Common Errors & How to Avoid Them

- **Mislabeled specimens:** Always verify patient details before labeling
- **Incorrect tube usage:** Follow the order of draw and use proper tubes
- **Insufficient sample volume:** Ensure enough blood/urine is collected for testing
- **Improper sealing:** Prevent leakage and contamination

IMPORTANT REMINDER: Be sure to follow the Tube Collection Order for all draws.

## Blood Sample Collection – Required Tubes

1. Red-Grey (Marble) Top
  - Red Top – pour off tube
2. Green Top
3. Royal Blue Top
4. Lavender Top

## Urine Sample Collection



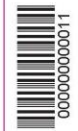

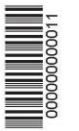





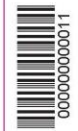

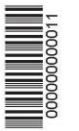





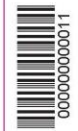

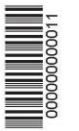





1. Yellow Top
2. White/Clear Top





# Final Checklist

- **Quick-reference for successful collection**
  - Verify employee identity & documentation
  - Collect specimens using proper technique
  - Ensure correct tubes are used
  - Fill specimens to proper volume level
  - Handle, store, and package specimens correctly
  - Complete required paperwork
  - Securely affix all labels
  - Ship specimens per guidelines
- **Contact WorkCare with Questions**
  - [ClinicNetwork@workcare.com](mailto:ClinicNetwork@workcare.com)

<b>Account Information</b> Acct: _____ Collection Site Information Name: _____ Address 1: _____ Address 2: _____ City: _____ State: _____ Zip: _____ Ph: _____ Fx: _____		 <b>CLINICAL REFERENCE LABORATORY</b> 8433 Quivira Road • Lenexa, Kansas 66215 Collection Site Code: _____ Collector Name: _____		 0000000000									
<b>PATIENT INFORMATION</b>													
LAST NAME _____ FIRST NAME _____ PHONE (____) _____ PATIENT I.D. OR SOCIAL SECURITY NUMBER _____ PATIENT ADDRESS _____ APT. # _____ CITY _____ STATE _____ ZIP CODE _____			DATE AND TIME LAST FOOD AND DRINK M O DAY Y E A R HOUR MINUTE AM PM 2 0 DATE AND TIME SPECIMEN WAS OBTAINED M O DAY Y E A R HOUR MINUTE AM PM 2 0 Gender M F Date of Birth M O DAY Y E A R										
REQUESTING PHYSICIAN _____ ADDRESS _____ CITY _____ ST _____ ZIP _____ PHONE _____ FAX _____ NPI # _____			<b>SPECIMEN TYPE SENT</b> Serum (S) Lavender (L) Urine (U) Green (GN) Royal Blue (RB) Urine for metals (UM) Oral Fluids Other _____										
<b>DEPARTMENT OF HEALTH REPORTING - Information Required for Metals, Infectious Disease, Etc.</b>													
Race <input type="checkbox"/> Native American, Eskimo, Aleutian <input type="checkbox"/> Asian / Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Multi-Racial <input type="checkbox"/> White		Ethnicity <input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unknown <input type="checkbox"/> Other		Employer Occupation _____ Employer Address _____ City _____ State _____ Zip Code _____ Employer Phone Number (____) _____									
PLEASE REFER TO THE REVERSE SIDE OF THIS FORM FOR COLLECTION REQUIREMENTS 0000000000													
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# Order Additional Collection Supplies

If you require a new shipment of WorkCare/CRL collection supplies, please either:

1. Send the request to your WorkCare Account Management or customer support representative
2. Reach out to our clinic network team at: [ClinicNetwork@workcare.com](mailto:ClinicNetwork@workcare.com)

# PCB Collection Tubes

WorkCare clients do a small volume of PCB tests each year. If a donor is scheduled to arrive at your location, WorkCare or CRL will send you supplemental collection supplies to use in addition to the standard WorkCare kit.

- Blood is drawn into the red tube, spun, and poured into the green top transport tube
- The red tube can be discarded after pour-off



**Thank you  
for your time.**