

Document Management Number: SOP-0938

Document Title: CBOC Specimen Collection Procedure

Policy:

Laboratory specimens that are sent to the Salt Lake City VA Hospital laboratory must be collected, stored, and shipped properly. Failure to collect, store, or ship samples adequately will be a cause for rejection by the Laboratory.

Purpose:

To ensure specimen integrity has been maintain during the pre-analytical phase of specimen analysis. Improper identification, collection, storage, and shipping can drastically alter laboratory results. It is imperative that all pre-analytical steps are followed to provide highly accurate results.

Procedure:

A complete procedure for a blood draw can be found in the VA SLC Laboratory Venipuncture Procedure.

1. Identify the patient.
 - a. Before drawing blood from a patient their identification must be verified. Salt Lake City HCS policy requires employees to ask the patient their **FULL** name and **FULL** social security number to properly identify patients. In cases where the patient cannot remember their own information, asking a patient's family member to provide the information is acceptable. If the patient is alone, it is also acceptable to ask the patient their birth date and verify it in CPRS
2. Identify the requested tests in CPRS.
3. Obtain the correct quantity and type of tube for each of the tests requested by the provider.
 - a. There are several resources available to CBOC staff to determine proper specimen collection. These resources include:
 - CPRS Tools – Lab Test Description
 - ARUP or LabCorp Directory of Services
 - Salt Lake VA Clinical Lab Specimen Receiving Department - ext. 1476
 - Ancillary Testing Coordinator – ext. 1595
 - Lab Supervisor – ext. 1988
3. Organize the tubes in the proper order of blood draw
 - Blue Top
 - Red/Yellow Top (Serum Separator or No Gel Barrier)
 - Green/Yellow Top
 - Lavender Top
4. Draw blood according to VAMC Laboratory Venipuncture Procedure
5. Label Specimens:
 - a. All specimens need to be labeled with the following information in the presence of the patient. If the tube does not reflect the information below the Laboratory may reject the specimen:
 - **FULL FIRST and LAST name**

- **FULL Social Security Number**
 - **Date and Time of blood draw**
 - **Initials of the person drawing the blood**
 - **Order number(s)**
6. Centrifuge specimens
- a. All tubes except for CBC's and PT/INR samples need to be centrifuged.
 - b. Allow specimen to clot for a minimum of 30 minutes but less than 2 hours.
Centrifuge the specimen the full time and preset speed. The serum/plasma will be separated from the cells by a gel barrier in green/yellow and red/yellow tubes. All other tubes will not have a gel barrier and must be poured off immediately into a serum/plasma transport tube unless otherwise directed.
- ***Note:** Red/yellow tubes need to be allowed to clot prior to centrifugation while green/yellow tubes can be centrifuged immediately.
7. Store specimens correctly prior to shipment
- **Lavender Tops:** generally used for CBC specimens and HGB A1C, are stored in the refrigerator until shipping. They must be shipped in refrigerated conditions (cooler/shipping container with ice packs)
 - The specimens should be well mixed by gently inverting the sample 5-10 times after the specimen is collected from the patient. Samples for CBC testing need to have a smear prepared for possible microscopic verification. Allow the slides to air dry before placing them into the slide container for shipment. Each slide needs to be labeled with the patients' full name, and full SSN. Leave the slides at room temperature.
 - BNP specimens must be centrifuged. The plasma must be poured-off and frozen immediately following centrifugation.
 - **Blue Tops:** are used for Coagulation Studies. PT/INR samples need to be stored and shipped at room temperature.
 - The specimens should be well mixed by gently inverting the sample 5-10 times after the specimen is collected from the patient.
 - Specimens cannot be centrifuged prior to shipping
 - **Red/Yellow Tops:** this is commonly used for Chemistry testing, Hormone levels, Toxicology or any test requiring serum, unless stated otherwise.
 - Allow tubes to clot for 15-30 minutes.
 - All tubes must be centrifuged prior to shipment.
 - Follow CPRS, LabCorp or ARUP guidelines for test requirements. If the serum is to be poured-off, make sure the pour off tube is labeled properly. *See the Labeling Requirements above.*
 - Store specimens upright in a rack according to temperature requirements.
 - **Green/Yellow Tops:** this is commonly used for routine Chemistry testing, Hormone levels, and any other test requiring plasma.
 - These are anticoagulated blood specimens and will not clot. The specimen should be centrifuged as soon as possible.
 - All tubes must be centrifuged prior to shipment.

- Follow CPRS, LabCorp or ARUP guidelines for test requirements. If the plasma is to be poured-off, make sure the pour off tube is labeled properly. *See the Labeling Requirements above.*
 - Store specimens upright in a rack according to temperature requirements.
- **Urine Samples:**
 - For a complete procedure to obtain and process urine samples follow the Clean Catch Urine Specimen Collection, Urine Chemistry Specimen Processing Procedure, and the Urine Microscopic Specimen Collection Procedure.

Common Urine Test Quick guide:

Test	Tube	Special Requirements
EMIT	Greiner Bio-one Vacuette® Urine Tube(yellow-black)	
Microalbumin	Greiner Bio-one Vacuette® Urine Tube (yellow-black)	
UPEP	Greiner Bio-one Vacuette® Urine Tube (yellow-black)	If 24 hr urine, put Total Volume on tube and tracking log
24 Hour urine tests	Greiner Bio-one Vacuette® Urine Tube (yellow-black)	Total Volume on tube and tracking log
Urinalysis w/Microscopic	BD Vacutainer® Urinalysis (marble red-yellow top)	
Culture & Sensitivity	BD Vacutainer Urinalysis grey culture tube	

8. Transport specimens

- Only use the plastic container with the foam inserts to transport specimens to the laboratory.
- Prior to sending samples, make sure that the CBOC Laboratory Tracking Form is included with the shipment.
- Refrigerated samples need to be placed upright in a cooler/shipping container with at least two ice packs.
- Frozen samples are placed in a separate cooler/shipping container. Dry ice on the bottom – cardboard (barrier) – frozen patient samples- cardboard – dry ice.
- Room Temperature samples need to be placed upright into a separate container, containing no ice or refrigerated ice packs.

*****Note:** *Holidays send CBC's locally to LabCorp for testing. Freeze serum samples for the Salt Lake VA and ship on the next business day.*

Procedural Notes

- Special Handling or STAT Specimens
 - Send the patient with a requisition slip to LabCorp for the following:
 - **ALL** PTT's
 - **Any** CBC samples collected on a Friday (this applies to CBOC's that do not have a courier service)
 - **STAT** test requests from the provider
 - **Any** sample tests that may not make it to the Salt Lake VA Lab in a timely manner (Holidays)
 - **Any** samples that won't be stable for shipping to Salt Lake

- Tracking Requirements
 - CAP requires that all samples must be shipped with a tracking form, this form must be included with the specimen shipment, and the following is acceptable:
 - a. On a CBOC Laboratory Tracking Form, place a duplicate sticker with the patients' information as listed above (*see Labeling Requirements*) for each patient. The label on the specimen must also include the order number for each test requested as well on the CBOC Laboratory Tracking Form.

- CBOC Specimen Results
 - The Salt Lake VA will enter the results of all CBOC tests into CPRS once testing is complete. CBOC testing will be completed within 24hrs of draw time so long as specimen stability isn't compromised. Salt Lake VA does not perform STAT testing for CBOCs. For any samples that are sent to LabCorp, the following will occur:
 - LabCorp sends a copy of the report to the CBOC, and the Salt Lake VA Lab.
 - The CBOC will place a copy of the lab report into the patients chart and inform the provider of the patients' results, until the result has been entered into to CPRS by the Salt Lake VA Lab Staff.
 - The Salt Lake VA Lab Staff will enter the results into CPRS as quickly as possible. This may take up to 72 hours after the final report has been received from LabCorp. *Please DO NOT FAX any reports to the Salt Lake VA during that time. This may cause duplicate results in the CPRS system.*
 - The Salt Lake VA Lab only has a contract with LabCorp and ARUP for testing. Results from any other lab will not be entered into CPRS.

Revision History

Section	Change	Date	Requester	Approver
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Header	Update header	12/21//2016	Hung Ho	E. Hart MD
Font, Size	New Time Roman, 12	12/21/2016	Hung Ho	E. Hart MD
Procedure notes	Updated CBOC test turnaround times	04/20/18	Josh Hastings	K Walsh MD