Specimen Handling (Formerly CP 5)

Atrium Health Wake Forest Baptist	DOCUMENT TYPE: Procedure	ORIGIN DATE: 3/11/2020
CLIA Lab Director:	LAB DEPARTMENT:	CONTACT:
Dr. Gregory Pomper	Central Processing Lab	Central Processing Lab

APPLICABLE LABORATORY(S)):	
☐ Lexington Medical Center (LMC)	
☐ Davie Medical Center (DMC)	
☐ Wilkes Medical Center (WMC)	
☐ High Point Medical Center (HPMC)	
☐ Westchester	

PURPOSE

☐ Clemmons

The purpose of this procedure is to establish guidelines to maintain consistency in the processing of laboratory test requests and patient specimens.

SCOPE

- i. Procedure Owner/Implementer: Central Processing Lab
- ii. Procedure Prepared by: Central Processing Management
- iii. Who Performs Procedure: Central Processing Staff

DEFINITIONS

- A. Procedure: A process or method for accomplishing a specific task or objective.
- B. WFBH Lab System: Wake Forest Baptist Lab System is a health system that includes Wake Forest Baptist Medical Center and all affiliated organizations including Wake Forest University Health Sciences (WFUHS), North Carolina Baptist Hospital (NCBH), Lexington Medical Center (LMC), Davie Medical Center (DMC), Wilkes Medical Center (WMC), High Point Medical Center (HPMC), Lab at Westchester and Lab at Clemmons.
- C. CP: Central Processing
- D. CSF: Cerebral Spinal Fluid
- E. TDM: Therapeutic Drug Monitoring
- F. Path Lab Handbook: The Online Test Directory lists tests and services that are performed inhouse with specimen requirements and special handling procedures.

SUPPLIES/MATERIALS

Use appropriate personal protective equipment (PPE) when handling biohazardous specimens.

PROCEDURE GUIDELINES

A. Specimen Handling

- Central Processing Services: The Central Processing Laboratory responsibilities include the receipt, accessioning, processing, and distribution of most lab samples/orders received in the laboratory.
- Department of Pathology Lab Handbook: The lab may provide a current list of test
 methods including performance specifications to clients upon request. The Pathology
 Lab Handbook Online Test Directory is accessible via the Wake Forest Baptist
 Health Intranet: https://intranet.wakehealth.edu/Departments/Pathology/Handbook/
- 3. **Specimen Transport:** Specimens may be transported to the Clinical Laboratory via the hospital pneumatic tube system.
 - a. Ordering locations without pneumatic tube are responsible for transporting samples to the laboratory.
 - b. The WFBMC Clinical Labs provide an on-campus courier who makes scheduled rounds in the hospital for onsite clinics and various other locations for pickup and delivery of samples to the lab.
 - c. It is recommended that irretrievable specimens be hand delivered to the laboratory, including but not limited to: CSF, body cavity fluids, joint fluids, blood gases, tissue, blood or urine cultures collected before antibiotic therapy, amniocentesis, cordocentesis, peak/trough TDM levels, and intravascular catheter tips for culture.
 - d. Hand delivered samples must be logged in the log book at the main lab window.
- 4. Bloodborne Pathogens: All samples transported to and received in the clinical laboratory should be handled according to standard precautions and bloodborne pathogen standards as outlined in the WFBH Blood and Body Fluid Exposure Control Plan and the Laboratory Safety Manual.
 - a. CSF samples with known or suspected Creutzfeldt-Jakob disease should be processed in a biosafety cabinet. Alert any staff that may be subsequently handling this sample.

5. Specimen Processing Priority:

- a. Blood and body fluid samples received in the lab are processed upon receipt on a first come, first served basis with priority given to STAT orders.
- b. **Red specimen bags**: STAT orders must be in a red STAT bag.
- c. Green specimen bags: Pediatric oncology and Cancer Center samples should be sent in a green bag. Pediatric oncology CBC samples are considered STAT and should be taken directly to hematology.
- d. Blue specimen bags from a Code Stroke Pevco carrier (and pager notifications) indicate a Code Stroke patient. These samples are always processed STAT and should be taken directly to hematology and Spin. Wrap Code Stroke specimen caps in red tape to identify them. Do not place Code Stroke specimens on the track.
- e. **OB Only HIV** are always STAT and delivered immediately to microbiology. Do not scan OB Only HIV. Do not put in bucket for Spin to deliver.
- f. **OR specimens** from Tube 104 or Tube 12 (OR Stat Lab) are always STAT. Scan and deliver immediately.
- g. **Ammonia samples** should be processed STAT and should remain on ice until the Spin person delivers the specimen to the testing area.

- h. **TEG samples** are **unspun**, whole blood light blue top tubes with a short stability. Scan and deliver directly to hematology (CBC bench).
- i. **Extra Blue** samples ordered by the provider are **unspun**, whole blood light blue top tubes. Scan and deliver directly to hematology (CBC bench).
- j. **Citrated Platelet Counts** (Citrated PLT) are **unspun**, whole blood light blue top tubes. Deliver unspun to hematology CBC bench.
- k. **PFA, PLAG, RIPA, PAS** are **unspun**, whole blood light blue platelet tests. Deliver unspun, directly to coag bench.
- 6. **Specimen Receipt and Accessioning:** Specimen test requests received in the lab should be processed in Beaker. Exceptions not entered in Beaker include orders for Microbiology, Blood Bank, Cytology, Surgical Pathology, Genetics, and HLA. These tests/samples are received in the lab and forwarded to the respective test areas.
- 7. **Specimen Evaluation:** Specimens should be evaluated when received in Central Processing for the appropriate specimen type and integrity of the sample.
 - a. **Specimen Integrity:** Leaking or broken specimens should be evaluated and discarded if they cannot be safely salvaged, or if the quality of the test results would be compromised.
 - b. **Specimen Types:** Specimen types are defined in Beaker for each test. Specimens must be evaluated prior to processing according to the defined test requirements. Ordering locations should be notified in the event a specimen does not meet the defined test type requirements. Each laboratory section may have additional specimen requirements.

NOTE: Sendouts should evaluate any referral testing that is sent in an unexpected tube type. They may be able to send to an alternate referral testing lab.

8. Shared Specimens:

- a. HIV samples cannot be shared unless approved by Dr. Palavecino.
 - i. Samples cannot be relabeled with an HIV label. Multiple labels on an HIV sample are only acceptable if the original label was smudged/misaligned and needed to be reprinted.
 - ii. If one gold top tube comes labeled for testing other than HIV, with a separate HIV label in the bag: the HIV must be recollected.
 - iii. Samples for HIV testing must be in a primary tube. Aliquots are not acceptable.
 - iv. If an outreach or outpatient sample is negative for HIV testing, send an email to Dr. Palavecino if additional testing is requested on that sample. She will review all cases before approving additional testing.
 - v. Enter an RL6 for all events where an HIV test must be recollected or is requested to share. Refer to Incident/Credit Report procedure for documentation instructions.
 - vi. For outpatient samples, notify the ordering location or collection site of the inadequate specimen by sending an email to the lab specimen issues email list, <u>lab specimenissue dl@wakehealth.edu</u>, with the location code as the subject.
- To share one sample between multiple lab sections or instruments (one tube, two labels – NOT APPLICABLE FOR HIV SAMPLES):
 - i. Scan both labels. On the label that is loose (not attached to a tube), write "refer to..." and the container number of the tube. For example, Refer to

7023814700. Flag tube with the second label, or place it with add-on labels for that section.

- 9. **Specimen Communications:** Communications regarding specimen problems should be communicated to the ordering location by the lab section evaluating the problem.
 - a. Central Processing should handle and communicate problems regarding specimen types and compromised specimens (broken, leaking).
 - b. Central Processing should notify the ordering location if they note problems when processing the sample (short sample, wrong tube type).
 - c. If the sample is short but can possibly be run, the sample should be marked with an "S" and the lab section alerted. Enter a Beaker Lab Comment to document a short sample was received (.sheme for short hematology or .schem for short chemistry).
 - d. The testing lab should notify the ordering location if there is a sample problem identified after specimen is received at the testing bench (clot, QNS).
 - e. The lab section that notifies the ordering location of a problem should document the problem in Beaker and cancel the received test with the appropriate reason. Reasons for canceling in Beaker include: Broken/spilled in transit, cancelled by provider, clotted, collected in wrong tube, correct test ordered, duplicate request, floor/clinic ordered incorrectly, improperly preserved/processed, lab duplicate order, lab ordered incorrectly, lost in transit, no sample received, not proper time for requested test, not received on ice, other, patient ID incorrect, physician cancelled order, sample not kept warm, sample not protected from light, specimen clotted, specimen mislabeled, specimen not labeled, stability limit exceeded when received, wrong tube/specimen type.
 - f. For outpatient samples, notify the ordering location or collection site of the inadequate specimen by sending an email to the lab specimen issues email list, lab_specimenissue_dl@wakehealth.edu, with the location code as the subject. g. Refer to Incident/Credit Reports procedure for further instructions on canceling tests and documenting incidents.
- 10. Order Clarification: After assuring patient specimen identification matches on all samples and requisitions, assure that all orders are clearly understood. Any questions must be resolved by calling the ordering location for clarification. Document that a call was made on the requisition or in Beaker, including the name of the person you spoke to, date and time, and your name.
 - a. For outpatient samples, notify the ordering location or collection site of the order question by sending an email to the lab specimen issues email list, lab_specimenissue_dl@wakehealth.edu, with the location code as the subject.
- 11. **Aliquot Samples:** Samples poured off (aliquoted) must be identified with a minimum of the patient's name, medical record number, and accession number.
 - a. In the event that there is minimal room to record this information (such as bullet tubes), the patient's last name and medical record number may be used.
 - b. The person pouring off the aliquot must initial the identification label placed on the aliquot to indicate their responsibility for verifying the identity of the aliquot sample from the primary tube.
- 12. **Extra samples:** When samples arrive without an order, check Beaker for any pending or outstanding orders.

- a. Do not assume that a particular test is wanted without verifying with the provider. Call if necessary and request that an order be placed.
- b. Staff should only be receiving tests that have been ordered.
- c. Extra tubes received in the lab that are ordered in Beaker as Extra Tubes include any pediatric bullet samples, and gold or lavender tubes from outreach or outpatient clients. Extra urine (UA or plain chemistry tubes) or urine culture tubes are also ordered in Beaker. See Attachment A for instructions on ordering extra tubes.
- d. Any urine remaining after aliquoting ED and OR patients is stored in the Spin refrigerator rack.
- e. Any body fluids remaining after aliquoting for testing are stored in the Spin refrigerator rack. Refer to Spin Procedure.
- f. Extra blood tubes from inpatients are kept in a rack in Spin.
- g. Extra urine culture tubes, body fluid freeze and holds, and autopsy specimens are tracked in Beaker in Container Storage. Refer to Container Storage in Beaker procedure.

13. Specimens should not be returned to the ordering location for any reason:

- a. Once specimens are received in the lab, they may not be returned to an ordering location or given to non-lab personnel for any reason to take out of the lab.
- b. Extra specimens will be retained in the laboratory in the extra rack located at the Spin bench.
- c. Specimens sent to main campus in error should be evaluated by the pathology resident.
- 14. **Specimen Disposal:** All specimens received in the laboratory are considered biohazardous and should be handled according to the Laboratory Safety Manual. Refer to the Biohazard Waste Disposal procedure.
- 15. **Sharps:** Specimens with attached needles should not be accepted in the lab. If the specimen is from a critical patient, caution the sender that needles should be removed at the collection site. Accept it and carefully remove the needle with hemostats.
 - a. Urine cups with a built-in transfer device should not be accepted in the lab. The transfer device is a sharp and causes leaking of sample in transit.
- 16. **Blood Bank Segments:** Blood bank segments sent to Central Processing should have orders for sickle cell screens and are delivered to hematology.
- 17. **Blood Gas Samples:** Blood gas samples are sent via pneumatic tube system to the ICU Blood Gas Lab, Station 54.
 - a. See instructions for OR Stat Lab samples in the OR Stat Lab Hours and Testing After Hours Job Aide.
- 18. Release of Samples to Outside Agencies: Blood and body fluid samples may be released to Federal, State, or Local Law Enforcement Agencies or other outside agencies having statutory authority to obtain physical evidence such as: the North Carolina Industrial Commission, a Court Order, a Search Warrant, a North Carolina Industrial Commission Order, or other legal document recognized by the legal department.
 - Management (CP or Referral Testing) should be notified if there is a request.

- 19. Handling Duplicate Test Orders: Known duplicates are:
 - a. Two labels for the same test with two different accession numbers
 - b. Two labeled tubes with different accession numbers but the same test. Cancel one of the accession numbers with reason "Floor duplicate order." Order an extra tube as appropriate. Refer to section 12.

LITERATURE REFERENCES

None

RELATED PROCEDURES/POLICIES IN NAVEX

None

ATTACHMENTS/LINKED DOCUMENTS IN TITLE 21

Attachment A: Ordering Extra Tubes

CP-JOBAIDE-0014: Job Aide: OR Stat Lab Hours and Testing After Hours

CP-SOP-0013: Incident Credit Reports CP-SOP-0037: Biohazard Waste Disposal

REVISION DATES: REVIEW CHANGE SUMMARY AS REPRESENTED IN TITLE 21.

Attachment A: Ordering Extra Tubes

Test code: LAB4193 Phlebotomist Extra Tube Order (Lab Use Only)

Section	Use When	Comments
Α	Receiving Screen is up	Action tab to select Extra tube
		Use Extra tube order **
В	Only Tube, nothing to scan in	Manage Orders
		Use Extra Tube Order **
С	X locations (CareEvolve)	Use Requisition Entry
		Order test by tube color

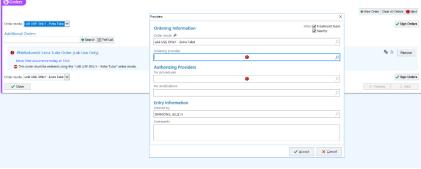
The Extra Tubes Navigator can be accessed from these activities.**

Section A: Ordering from the Receiving Screen. (There are other tubes available to receive.)

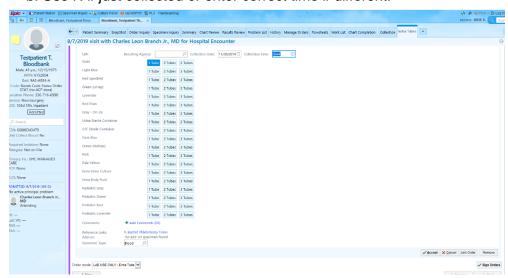
STEPS		NSTRUCTIONS
1.0	Scan labels to receive tubes that	at have orders.
2.0	and scan to bring up the patient in patient has been pulled up before	quiry to verify that there are no outstanding orders
	NO ORDERS	HAVE ORDERS
	NO ORDERS	HAVE ORDERS
	a. Go to Step 3.	 a. Collect the tube so that the label prints. b. Verify label is for correct patient. c. Label tube so that name on original label on tube is visible. d. Scan tube to receive.
3.0	Click the action atab and se	elect Extra Tubes by
3.0	clicking.	Add Follow-up Jask Add to Packing List Cancel Corresults Chart Review Comm Log Holds Holds Containers Gree Entry Order Ingury Personalize Toolbar Personalize Toolbar Personalize Toolbar

STEPS INSTRUCTIONS 4.0 Select the Order Mode option: LAB USE ONLY EXTRA TUBE from drop down window. Provider window opens.

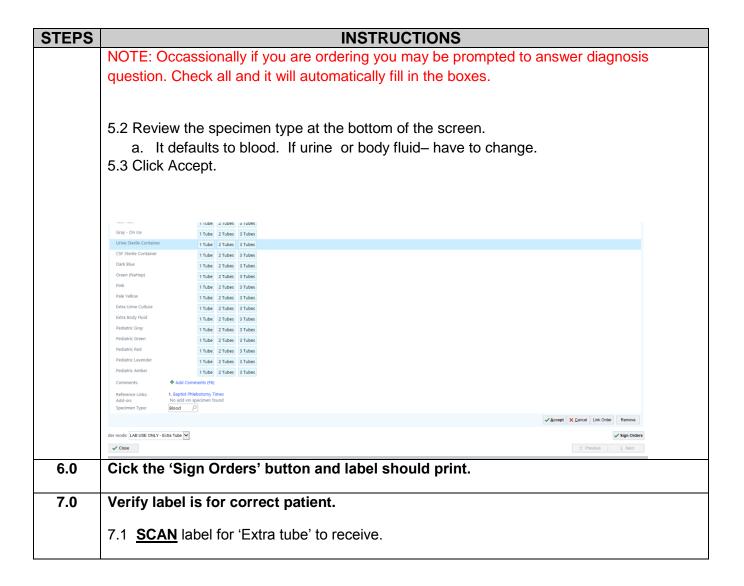
+ Search E Pref List



- 4.1 Hit spyglass beside ordering provider to add ordering provider information.
 - a. Provider if physician will default in.
 - b. Note: If provider is Physician Assistant (PA) will not be in there.
 - Type in provider name and search.
 - May need to clear filters and search (based on who ordered other tests.)
- 4.2 Click Accept when provider information has been added.
- 4.3 Click NEXT.
- 5.0 Enter the collection information from the tube you have received and select the number and color/type tube by highlighting.
 - 5.1 Enter date and time of collection.
 - a. Use T for today or select the date.
 - b. Use N if just collected or enter correct time if different.

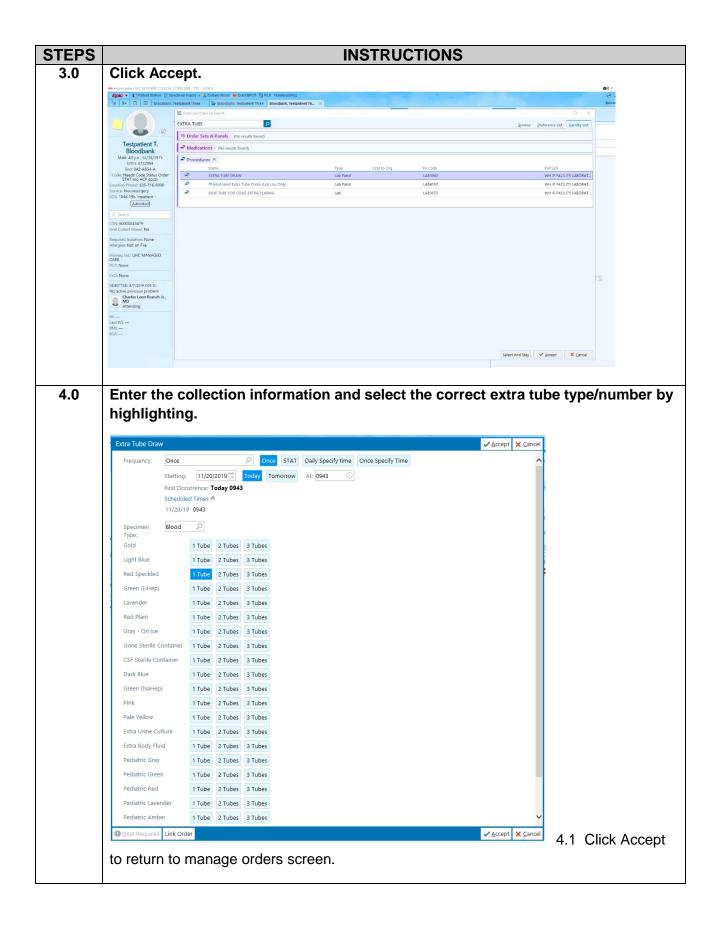


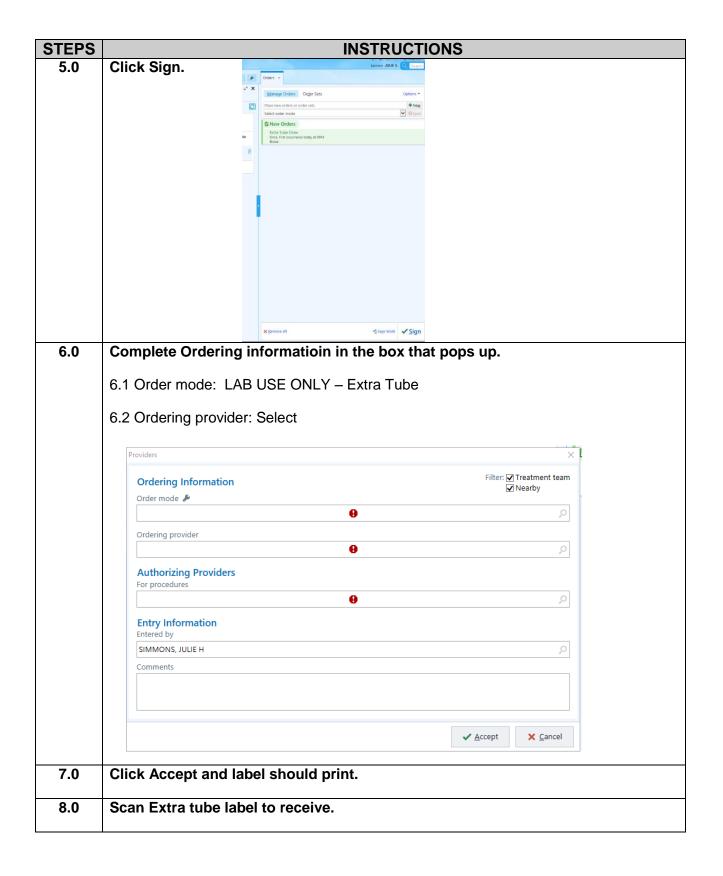
NOTE: Verify that you have NOT ordered the Extra tube as a future order. If it is a Future order - then need to change it or the label will not print.



Section B: Ordering from Manage Orders when there are no orders – no tubes are available to scan in the Receiving screen.

STEPS		NSTRUCTIONS
1.0	Go to Patient Inquiry and Order Inquiry to verify that there are no outstanding orders requiring the tube that has been sent.	
	NO ORDERS	HAVE ORDERS
	a. Go to Step 2.	 a. Collect the tube so that the label prints. b. Verify label is for correct patient. c. Label tube so that name on original label on tube is visible. d. Scan tube to receive.
	1.1 IF:	u. Scarr tube to receive.
2.0	© Location Prioral Statuto (Statuto New Control of ABO Incompatible Kidney Cost (Statuto New Cost) (Statuto	





C. Using Requisition Entry when extra tube is from "X" location.

STEPS	INSTRUCTIONS
1.0	Go to Specimen Inquiry by Patient.
2.0	Type "X" location in submitter box and the first three letters of patient's last and
	first name in Name/MRN box. i.e. XSLMN for Salemtowne; SMI, JOE for Joe Smith.
	2.1 Click find Patient.
	2.1 Glick find Fationt.
	Patient Lookup X
	Select Patient Recent Patients Non-Human Only Show Inactive
	Name/MRN: SMI,JOE Submitter: XSLMN
	SSN Sex:
	DOB:
	□ Use sounds-like
	New New & Reg Find Patient Clear Accept Cancel
	New & Reg Find Patient Clear Accept Cancel
	2.2 Deview notions that is displayed and Click Assent if somest notions
	2.2 Review patient that is displayed and Click Accept if correct patient.
3.0	Click on a current specimen. Specimen Inquiry will open.
3.0	click of a current specimen. Specimen inquity will open.
	3.1 In Specimen Inquiry screen, click on Requisition Entry button.
	Specimen Inquiry: 21W-160MD0008
	←
	Greather inquiry
	21W-160MD0008
	21W-160MD0008 Beakerapeleven, Patient Nmn F, 61 yrs, 2/29/1960
	Dount a policy on, i did not in the same of the same o
	F, 61 yrs, 2/29/1960
4.0	In Requisition Entry, scroll through the lists of tests ordered for the patient (in
	Procedure section) until you reach an 'empty' box.
	2.4 Time in the table colon in the Duccedium have (i.e. "O-1-1" "1")
	3.1 Type in the tube color in the Procedure box. (i.e. "Gold" or "Lav")

