

## **INTRODUCTION PATHOLOGY & LABORATORY MEDICINE SERVICE**

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Ernest Childers Outpatient Clinic, Tulsa, OK (ECOPC) is staffed 8 hours per day on weekdays only. ECOPC is closed on holidays. Laboratory hours at ECOPC for patient phlebotomy are 8:00 am to 4 pm. Accommodations will be made for those patients urgently requiring lab testing after 4 pm.

Hartshorne Outpatient Clinic (HOPC) and Vinita Outpatient Clinic (VOPC) are equipped with a drawing station with transport of specimen to Muskogee lab for testing. Accommodations will be made for those patients urgently requiring lab testing.

The Jack C. Montgomery VAMC, Muskogee, OK (JCMVAMC) laboratory service is staffed 24 hours per day seven days per week. Seven days a week there is a routine blood collection on the wards at 6:30a.m. After the 6:30 a.m. blood draw, blood collection on the wards will be as needed or at a specified time. After the 6:30a.m. blood draw, any non-routine requests for ward blood collection should be electronically requested as “IMMEDIATE COLLECT”. **Only “IMMEDIATE COLLECT” orders will print in the laboratory.** After 4:30p.m., call the laboratory for any blood collection orders after entering the order electronically as “IMMEDIATE COLLECT”.

During the day, outpatients will come to the laboratory and orders will be looked up in the computer.

Emergency Room lab orders will be electronically requested as “IMMEDIATE COLLECT” with an urgency of “STAT”. Emergency Room personnel will notify the laboratory if the patient will be drawn in Emergency Room, otherwise the patient will come to the laboratory.

The majority of laboratory tests are routinely run each day. Any tests not routinely run, will be drawn when ordered and held for the next routine run or shipped out for testing at outside laboratories.

LABORATORY TELEPHONE EXTENSIONS: Muskogee: (Day) 3172, 3177, 3679;  
(Evening/Night) 3171 Ernest Childers Outpatient Clinic: 2652; Hartshorne: 3571; Vinita: 5411.

## 1. PRIORITY OF TESTS:

**STAT:** Life or death situation. The health care provider will electronically order the test as “IMMEDIATE COLLECT” with an urgency of “STAT” and call the laboratory to notify them of the order. Results should be available within one hour. (Testing that is not performed at the ECOPC lab which is ordered STAT, will be drawn STAT and sent to JCMVAMC at the next available opportunity or will be sent to a Tulsa fee basis lab at the provider’s request.)

**ASAP, NOW, TODAY:** No immediate threat to patient but will aid in better patient management. Order electronically as “IMMEDIATE COLLECT” for inpatients and Emergency Room, if lab goes to the patient (notify the evening and midnight lab shifts by phone) or as “SEND PATIENT” for outpatients and Emergency Room, if patient comes to lab (send the patient to the lab). Inpatient specimens will be drawn on the next available ward round. If the test appears on the STAT List, results will be available within one hour after test is drawn. If the test is not on the STAT list, it will be performed with the next batch of testing.

**ROUTINE:** No threat to the well being of the patient. Order electronically as “LAB COLLECT”. This request will be collected on the next early morning ward rounds between 6:30 and 7:30 AM. All routines will automatically go to the early morning ward rounds for the next day blood draw. The results will normally be available before noon.  
ECOPC: order electronically as “SEND PATIENT”. These tests will be available the same day if testing is performed at ECOPC, and no later than the following day if testing is performed at Muskogee JCMVAMC. HOPC and VOPC: order electronically as “SEND PATIENT”. These tests will be available no later than the following day if testing is performed at Muskogee JCMVAMC.

**TIMED SPECIMEN:** Specimens must be drawn at a specific time. This designation should be used for drug assays such as peaks and troughs, glucose, PTTs, cardiac enzymes and troponins. Order electronically as “IMMEDIATE COLLECT” (notify the evening and midnight lab shifts by phone) or as “SEND PATIENT” for outpatients (send patient to the lab at the appropriate time). Laboratory personnel will collect the specimens within 1 hour of designated time, except for PTT’s, peak and troughs which will be collected within 30 minutes of the designated time and the testing will be performed with the next batch. Tests listed on the “STAT” list, will usually be available within one hour.

**ELECTIVE SURGERY:** Orders requiring Transfusion or Type/Screen testing can be collected up to seven days prior to surgery. Outpatient pre-op lab orders should be ordered electronically in CPRS using the Blood Quick Menu.

**EMERGENCY SURGERY:** Emergency surgeries will be handled on a “STAT” basis and will be electronically ordered as “IMMEDIATE COLLECT” with the urgency of “STAT”.

## **BLOOD CULTURE**

**Blood culture order:** A blood culture order will consist of a blood culture set. A blood culture set is two separate blood draws, for a total of four blood culture bottles, two aerobic and two anaerobic. This is a one time order by the provider in the computer called “Blood Culture”. The computer will automatically generate orders for a blood culture set to be drawn STAT.

## **2. ORDERING LAB TESTS:**

All lab work should be ordered electronically with the exception of Surgical Pathology and Cytology specimens. The Surgery department computer package allows entry of surgical specimens electronically. Refer to the Blood Transfusion Service section of this manual for ordering blood and blood products.

1. The provider will use the CPRS “ORDERS” tab to enter lab orders. Three menus are available:

**LAB GENERAL**

**LAB Other**

**LAB QUICK Order**

2. The provider will select the test desired. The LAB QUICK ORDER menu has preset defaults for all of the following options with the exception of the “Collection Date/Time” field.

3. The provider will choose one of the following “Collection Types”:

**LC** LAB COLLECT (Inpatients – morning draw) 6:30 AM phlebotomies

**SP** SEND PATIENT (Clinics send patient to the lab for phlebotomy)

**WC** WARD COLLECT (Collected by ward personnel - urine, stool, CSF, etc.)

**I** IMMEDIATE COLLECT (Orders for today, timed, STAT, Q8hr, etc. **Only** tests ordered as “IMMEDIATE COLLECT” will print in the laboratory. “STAT” orders must still be called along with entering as “Immediate Collect”).

**Please verbally notify the lab techs of all lab tests required during the evening and midnight shifts as well as electronically entering the order as “IMMEDIATE COLLECT”.**

4. The provider will choose one of the “Urgency” types from the drop down menu.

5. The provider will enter the “Collection Date/Time”, “How Often”, and “How Long” (if required).

**Note: For body fluid specimens, designate the appropriate specimen in the “Collect Sample” field.**

## **3. ELECTRONIC LAB ORDER REQUESTS:**

The following information will be listed on each electronic lab order request:

1. Patient’s name and Identifying Number (nine digit SSN).
2. Patient’s sex and date of birth or age
3. Name of provider.
4. Test requested.

5. Source of Specimen.
6. Requested Date/Time for collection of specimen
7. Date/Time of receipt of the order by the laboratory service.
8. Electronic laboratory order number.
9. The urgency of the order (STAT, timed, etc.)
10. The location that generated the order
11. The name of the person entering the order
12. Clinical information or any miscellaneous ward instructions

#### **4. BACK-UP METHOD OF ORDERING LAB TESTS:**

In the event that the Laboratory Contingency Plan is activated, all orders manually submitted to the laboratory must contain the following information and the order recorded on the "Computer Downtime Laboratory Request" form and submitted to the laboratory service:

1. Patient's name and identifying number (nine digit SSN)
2. Patient's sex and date of birth or age
3. Ward, room, and bed.
4. Date and time of specimen collection.
5. The urgency of the test.
6. Test requested.
7. The provider's complete name.
8. Source of specimen if applicable.
9. Any special instructions or clinical information

#### **5. IDENTIFICATION OF PATIENT:**

All inpatients and Emergency Room patients must have an armband. The phlebotomist must check the patient's full name and full Social Security Number (SSN) by comparison of the patient's armband against the requisition or label immediately upon entering the room. The phlebotomist should also ask the patient to state his/her name. If there is any doubt or discrepancy the phlebotomist must get the aide of a nurse or a family member for a positive identification.

The phlebotomist will compare an outpatient's full name and full SSN on his/her labels against either a VA identification card &/or information printed by patient on waiting room pad &/or by having the outpatient to state his/her full name and full SSN. The request for the patient to state his name and SSN will be made at the drawing chair and not out in the open for others to hear.

The unidentified emergency patient should be given some temporary but clear designation using two identifiers (name and number) until positive identification can be made (verification of the patient by the health care provider).

#### **6. REPORTING OF RESULTS:**

1. All test results will be electronically entered in the computer system.
2. All "critical" values will be called to the health care provider, provider's supervisor, Chief of Staff or Chief of Staff Designee. Documentation of the call stating name of person notified, date/time of the call, the critical test called, and read-back verification will be noted in the

"Comment" section of the electronic report followed by the caller's initials.

3. In the event the provider cannot be located for notification, the provider's supervisor, Chief of Staff or Chief of Staff Designee will be notified.

## 7. PROPER LABELING OF SPECIMENS:

All laboratory specimens will be transported to the laboratory in Biohazard specimen transport bags.

The requisition should be placed in the pouch separate from the specimen. All specimens will be submitted in appropriately labeled and well-constructed containers with secure lids to prevent leakage during transport. Specimens should be delivered to the laboratory immediately after collecting.

Specimens obtained when performing phlebotomies at the bedside will be labeled with the computer generated label, or handwritten after collection of the blood sample, and information on the computer label will be compared to the patient's armband. Specimens from ambulatory care patients collected in the laboratory will be labeled after the phlebotomy with a computer generated label if the patient has stated the correct name and SSN. The patient must be positively identified before performing the phlebotomy with at least two identifiers (full name and full SSN).

Specimens collected outside the JCMVAMC will have two full patient identifiers, collection date and time. Acceptable identifiers include: full name, full social security number, date of birth, and order number. **To protect patient sensitive information full name and order number are preferred.** Specimen should have the initials of the collector if someone other than the patient.

All laboratory specimens will be labeled in the following manner when computer generated labels are used and more than one computer label can be placed on a tube of blood:

1. Department and laboratory accession number
2. Patient's name (last, first, and middle initial if adequate space)
3. Social security number
4. Date
5. Ward / Bed number (when available)
6. Order number
7. Type of tube or specimen
8. Test

When contingency plans are activated, all laboratory specimens will be labeled in the following manner:

1. Patient's name (last and first)
2. Social security number
3. Date and time
4. Phlebotomist's initials
5. Source of specimen if applicable (culture, etc.)

For laboratory requests needing appropriate clinical data relayed to the laboratory, please enter this data in the computer in the Comments section when ordering the laboratory test/s. Such data would include:

1. Antimicrobial therapy
2. Spiking of temperature
3. Any additional helpful information

Documentation of any unacceptable specimen will be made in VISTA in the Comments section. Documentation of why the specimen was unacceptable, the person notified, the date/time, and the initials of the lab person making the notification will be noted in VISTA by laboratory personnel.

## **8. REJECTION OF SPECIMENS:**

Specimens will be rejected for the following reasons:

1. Non-sterile specimen received when a sterile specimen is required.
2. Urine for urinalysis or culture has been collected for >2 hours and not refrigerated.
3. Urine for urinalysis or culture has been collected and refrigerated for >24 hours.
4. Sputum specimen for routine C&S has been collected for >2 hours and not refrigerated.
5. 24 hour urine requiring a preservative, but no preservative was added to the container.
6. Insufficient volume of specimen collection.
7. Improper collection tube or tube breaks after collection.
8. Hemolyzed, lipemic or icteric specimens.
9. Cold agglutinins not kept warm.
10. Non-compliance with a testing requirement for performing phlebotomy in a chilled tube.
11. Formed stool submitted for fecal leukocyte testing.
12. Stool specimens collected for >1 hour and not transferred to a transport system (ParaPak) for routine C&S and/or O&P.
13. Inadequate labeling of specimen including failure to use two patient identifiers.
14. Incorrect labeling of specimen.
15. Anaerobe specimens that have been refrigerated.

## **9. SPECIMEN REJECTION CATEGORIES:**

Specimens that qualify for rejection fall into four different categories.

1. Specimens that can be easily re-collected - the new specimen can be obtained without deletion of the laboratory test order.
2. Specimens that cannot be re-collected, re-labeled and/or tested. The requested laboratory test will be canceled with a comment about the reason for the cancellation.
3. Outpatient urine specimens not collected will be electronically cancelled with a comment about the reason for cancellation. Provider does not need to be notified by phone.
4. Specimens that may have been improperly collected or improperly labeled but may be acceptable for some laboratory testing. See examples below.

## **10. SUB-OPTIMAL SPECIMEN PROCEDURE:**

1. Laboratory personnel will contact the health care provider prior to rejecting specimens which are difficult to collect, e.g. body fluids, 24-hour urines, blood gases, 24 hour stools, etc.
2. If the requested laboratory testing can be performed on the specimen even though it is improperly collected then the provider must decide whether to reject the specimen or have

- testing performed on the sub-optimal specimen. If the provider decides to proceed with the testing of the specimen, the laboratory personnel will electronically enter a comment noting the condition of the specimen. If a sub-optimal specimen is rejected, then a comment will be electronically entered noting the specimen problem and notification of the provider.
3. If the specimen causes a “photo optic” error upon testing due to hemolysis, excess bilirubin, lipemia, etc. the test will be canceled with an appropriate electronic comment and the health care provider notified. Notification will be documented in the electronic chart.
  4. The following are examples of sub-optimal specimens with tests that can be performed:
    - A. A non-sterile specimen for culture that cannot be re-collected may be cultured upon request of the provider.
    - B. A non-refrigerated urine received in the laboratory >2 hours from the time of collection, or a refrigerated urine >24 hours old, can be tested upon the request of the provider.
    - C. A non-acidified 24-hour urine may have a few tests performed if the pH of the urine is acceptable.
    - D. A hemolyzed specimen that does not interfere with the photo optics of an instrument can be tested for a hemoglobin level and most chemistry tests that are unaffected by lysis of the red cells. Tests that cannot be tested are RBC, HCT, MCV, MCH, MCHC, platelet count (due to red cell stroma interference), K<sup>+</sup> (potassium), and LDH.
    - E. A urine specimen for routine urinalysis testing that requires a microscopic examination can be tested on a non-centrifuged specimen if the amount of urine available is insufficient for centrifugation.
    - F. A fluid specimen or CSF that has an insufficient quantity for all tests requested, require that the health care provider determine the priority of the testing to be performed.
    - G. Lipemic specimens can be tested for most tests except for a Lipid Profile. For Lipid Profiles, lipemia can be avoided by collecting the specimen after a 12 hour fast. For hematology testing a plasma hemoglobin can be obtained to calculate the correct hemoglobin value.
    - H. Icteric specimens that are not photo optically rejected by the instrument can have any requested testing performed.
    - I. Specimens that are unlabeled or mislabeled and cannot be re-collected, may be tested after a health care provider has identified the specimen and labeled the specimen properly with at least two patient identifiers.

Jack C. Montgomery VAMC, Muskogee, OK  
and all Community Based Outpatient Clinics

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Author: Theresa Dawson, MSM, MT (ASCP)  
Laboratory Manager

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/s/

David W. Potts, M. D., Laboratory Director 10/1/15

/s/

Theresa Dawson, Chief Medical Technologist, 1/5/16