

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

INTRODUCTION

This manual is designed to be a guide for proper specimen collection and will be distributed to any area involved in collecting laboratory specimens such as the nursing stations, home health care agencies and doctors' offices. The manual will be up-dated as needed and will be reviewed annually.

The laboratory is located on the first floor near the main entrance, and is staffed 24 hours a day. The Medical Directors are Bruce M. Van Horn, M.D. F.C.A.P., Larry Cartmell M.D., F.C.A.P., Frank Cartmell M.D., FCAP and the Laboratory Supervisor is Cheryl Weems MT,(ASCP),SC, CPA.

For information concerning VVRH lab, call Cheryl Weems at (580) 421-1547.

Date Reviewed/By: _____

Medical Director

Laboratory Supervisor

Date Revised/By: _____

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

MICROBIOLOGY GENERAL INSTRUCTIONS	25
SPECIMENS REQUIRING SPECIAL PREPARATION	26
BACTERIOLOGY	26
PARASITOLOGY	27
MYCOLOGY/FUNGUS	27
MICROBIOLOGY LABORATORY PROCEDURES	28
MICROBIOLOGY COLLECTION/HANDLING PROCEDURES BY TYPE	29
SPUTUM	29
WOUND	30
URINE	31
CLEAN CATCH URINE COLLECTION	32
THROAT	33
ANAEROBIC CULTURES	33
BLOOD CULTURES	34
FECES	35
STOOL REJECTION POLICY	36
MICROBIOLOGY SPECIMENS REQUIRING SPECIAL PREPARATION	37
SMEARS FOR GRAMS STAIN	37
URETHRAL DISCHARGE FOR TRICHOMONAS	37
GENITOURINARY SPECIMEN FOR GC WHEN SPECIMEN DELIVERY DELAYED	37
FEMALE IN-PATIENT OR ER PATIENT FOR GC	37
VIRAL AND RICKETTSIAL SPECIMENS	38
SURGICAL PATHOLOGY	39
AUTOPSIES	39
CYTOLOGY	40
COLLECTION INSTRUCTIONS FOR THINPREP PAP TEST	40
CYTOLOGY SMEARS	40
BODY FLUIDS	41
RESPIRATORY TRACT SPECIMENS	42
BRONCHOSCOPIES	43
CELL SAMPLES FROM BREAST	43
LAB TEST COLLECTION/TURNAROUND TIME SPECIFICATIONS	44-51
BLOOD COLLECTION GUIDELINES TO MINIMIZE BLOOD VOLUMES	52
COLLECTION TUBE HANDLING INSTRUCTIONS	52
TRANSPORTATION OF SPECIMENS TO THE LAB FROM OUTSIDE SOURCE	53

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

POLICIES AND PROCEDURES

OUTPATIENT LAB ORDERS

- A. VVRH Laboratory OP Requisitions will be distributed to all area physicians' offices, nursing homes and home health care agencies.
- B. Laboratory personnel will instruct physician office staff, nursing homes and home health care agencies on the use of the requisition.
- C. Verbal orders will be accepted but they will be documented by the lab personnel taking the order.
 - a. The 'ORAL TEST ORDER/MODIFICATION FORM' will be completed.
 - b. The order will be read back to the physician and "VRB" will be written next to the person's name taking the order.
 - c. The Lab person taking the verbal order will fax the form to the ordering physician/health care provider to obtain signature. Instructions state for the ordering physician to sign and fax form to Health Information.
- D. All orders from non-staff physicians that include tests that may result in critical values must include the number to be called with critical results.
- E. No laboratory tests will be performed in the absence of an order from a physician or in a rural health care setting, a physician's assistant or nurse practitioner.
- F. All outpatient orders are to include an ICD-9 Code. If the patient is a Medicare beneficiary, outpatient orders will not be processed until an ICD-9 code can be obtained from the physician or an Advance Beneficiary notice is obtained from the patient.
- G. Providers sending testing to VVRH lab may obtain Medicare Medical Necessity requirements from www.cms.hhs.gov/coverage/download/manual11.pdf.
- H. Outpatients coming to VVRH for lab will first be directed to the admitting office.
 - a. If the patient has the physician's order in hand, admitting will proceed with the admission process
 - b. If the patient's physician has faxed the order to the laboratory, upon receipt, the lab will make a copy, retain the copy in the lab office "Orders" 3-ring binder and take the other to the admitting office.
 - c. The patient will be given an identifying armband, a copy of the lab order along with the admission sheet and be directed to the laboratory.
 - d. The phlebotomist will receive the order from the patient and enter it into the LIS.
 - i. A phlebotomist will determine if medical necessity screening is necessary. If so, he/she will proceed with the screening.
 - ii. If adequate diagnostic information is not present on the request, the phlebotomist may call the physician's office and attempt to obtain additional information. This call will be documented on the Record of Calls to Obtain Diagnostic Information. This form will be delivered to Health Information. That department will obtain the physician's signature.
 - iii. If diagnostic information that meets Medicare medical necessity cannot be obtained the patient will be offered an ABN.
 - 1. If the patient agrees to accept responsibility for payment, he/she will check Option 1, sign the ABN, the testing will proceed. The phlebotomist will make a copy of the ABN and give to patient. The original will be placed in the ABN wall file for distribution to Health Information.
 - 2. If patient refuses accept responsibility for payment, and does not want test performed, he/she will check Option 2. Patient will be informed that he/she is
 - 3. responsible for notifying his/her physician that testing was refused and will be given copy of the ABN.
 - 4. If the patient refuses to sign the ABN, but insists on testing, two lab employees will witness the refusal to sign on the ABN form. Patients will receive a copy of the ABN. Testing will proceed, original ABN to Health Info.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

- e. Enter the requested test(s) in the LIS. As ordered tests are entered, a unique accession number referred to as a Sample ID number or SID is assigned. Labels will print.
- f. Patient will be asked name and birth date. These two identifiers will be compared to the patient's armband. If they do not match, the samples will not be drawn and the admitting office will be contacted to correct the error.
- g. The phlebotomist will "update" or "collect" the sample in the LIS and then distribute the samples to the appropriate laboratory section.
- I. Critical results will be called to the physician's office, or if patient is resident of a nursing home or under the care of a home health agency, the nurse responsible for the care of the patient will be called. See handling of Critical Values on pages 10-11 of this manual.

INPATIENT LAB ORDERS

- A. The nursing unit will enter lab orders into the HIS. They are immediately transmitted to the LIS.
- B. As soon as an order is received from the HIS, the LIS assigns a unique accession or SID number.
- C. If the order is STAT, the label will print as soon as the order is received.
- D. If the order is TIMED and it is to be drawn in the next 2 hours, the nursing unit will call the lab to alert them of the order
- E. The phlebotomist will print collection labels at regular intervals throughout the 24-hour period, no less than every two hours.
- F. The phlebotomists will collect samples in the following order:
 - a. STAT from ER
 - b. STAT from OR
 - c. STAT from the nursing unit
 - d. TIMED orders
 - e. Oncology outpatients
 - f. Radiation Therapy outpatients
 - g. Outpatients
 - h. Routine inpatients.
- G. The phlebotomist will ask patient (if conscious) for name and DOB. Phlebotomist will compare patient's response (if available), armband and lab label. If they do not match, the phlebotomist will not draw the sample and will report the mismatch to the nursing unit.
- H. The samples will be labeled at the patient's side. The person collecting the samples will initial each specimen and write the time collected beneath the initials.
- I. After collection, the phlebotomist will "update" or "collect" the samples in the LIS and then deliver to the appropriate laboratory section.
- J. If a sample cannot be collected due to patient refusal, see page 8 of this manual.
- K. If a sample cannot be collected due to absence of an acceptable venipuncture site or inability to obtain a sample, see page 8 of this manual.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

REFERENCE LAB SPECIMENS (DLO)

- A. To collect a sample for a test not listed in the table at the end of this manual, please call the laboratory @ 421-1558 for instructions.
 - a. The technologist on duty will log on to the TOROL System, select "Dictionary", select "Order", enter the first letter or letters of the test name and select "Search"
 - b. All tests that begin with the letter(s) entered for the search will appear.
 - c. Click on the test number (appears to the far left of the test names) of the test desired.
 - d. Select "File" to print a hard copy of the collection instructions or view on screen.
- B. If a special collection container is required, it will be picked up in the lab.
- C. Some types of tests cannot be drawn on Thursday-Sunday. The lab will notify the patient location if a test of this type is ordered on a Thursday-Sunday. This is due to the fact that the reference lab may submit the test to another lab for testing and samples would not be delivered to the second lab in a timely manner.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

BLOOD SPECIMEN COLLECTION AND HANDLING

SPECIMEN IDENTIFICATION (COMPUER LABEL AND OR MANUAL LABEL)

All samples submitted to the lab for testing shall be labeled, at a minimum, with the patient's name, DOB, date and time of collection and initials of the person obtaining the sample. Blood specimens for blood bank work will be signed by person drawing blood specimen and will include the medical record number. Tubes used for type and screens and cross-matches shall be color-coded the same as the patient's wristband.

Specimens for culture or pathology shall be labeled with patient's name, DOB and date and time of collection. Type of specimen (urine, sputum, etc.), shall be noted.

Positive identification must be made prior to obtaining a lab sample. The patient will be asked for name and birth date, if conscious. Name and birth date (DOB) from all sources; patient (if conscious) wristband and lab label will be compared. If these identifiers do not match the sample will not be drawn until the discrepancy is resolved. If it is an emergency situation, the sample may be drawn, but the discrepancy or missing information must be resolved as soon as possible. If the patient does not have an armband and the situation is critical, the E.R. personnel must I.D. the patient before blood can be drawn.

On submitted specimens, the name and date of birth on the requisition will be compared with the name and date of birth on the sample. If they do not match exactly, the sample will be discarded unless it is a one-of-a-kind sample. (See exceptions list below.) If a one-of-a-kind sample, the submitting office will be contacted to come to the lab and correct the error. The person correcting the error will sign the LABORATORY SPECIMEN LABEL CORRECTION FORM.

SPECIMEN IDENTIFICATION/PATIENT IDENTIFIERS:

1. The person obtaining the sample will verify two identifiers prior to obtaining the sample.
 - a. The patient's name on the wristband will be compared to the name on the label.
 - b. The patient's birth date will be compared to the number on the label.
2. If the patient is alert, he/she will be asked to state his/her name and birth date.
3. If no armband is present, the sample will not be drawn except in the case of a critical emergency situation in the ER.
 - a. In this case the ER personnel will identify the patient.
 - b. If a transfusion is required later, the person obtaining the sample will return and verify the identity of the patient, apply the color coded tape to the patient's armband which should then be in place.
4. The specimen will be labeled at the patient's side. The person collecting the blood will initial the label(s) and write the time collected beneath the initials.
5. All blood specimens brought to the lab from the nursing units will be labeled, at a minimum, with the patient's name, birth date, date and time of collection, and initials of person who collected the sample.
6. Blood specimens for blood bank work shall also be identified with patient's medical records number, date of birth and signed by person drawing the blood specimen. Tubes for type and screens and cross-matches will be color-coded the same as the patient's wristband.
7. Urine specimens for culture shall be labeled with patient's name, DOB and date and time of collection. The type of specimen (urine, sputum, etc.), should be noted.
8. The date and time received will be recorded when the specimen is updated in the LIS. This Information is transmitted to the HIS.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

PATIENT PREPARATION: See PHLEBOTOMY Manual, pages 8-12 for detailed instructions.

**PATIENTS REFUSING TO SUBMIT TO CAPILLARY, VENOUS, OR ARTERIAL
PUNCTURES OR PATIENTS WHO HAVE POOR PUNCTURE SITES:**

- A. Any patient has the RIGHT to refuse any laboratory procedure.
- B. Some patients will not permit you to make any attempt to obtain any type of blood specimen.
- C. Some patients will not permit you to attempt a second try for any type of blood sample.
 - 1. When the above situation presents itself, immediately notify the nursing station and laboratory section requiring the blood sample.
 - 2. Someone else assigned by nursing or the lab supervisor will attempt collection from this patient.
 - 3. If patient will not permit a second assigned person to obtain the required blood sample, then this fact must be reported to the nursing station.
 - 4. The physician will be notified by the nursing station if the sample will not be drawn
- D. If the patient has no possible venipuncture sites, the physician will be notified by the nursing station.

UNACCEPTABLE SPECIMENS

Any blood specimen or container received by the laboratory or collected by laboratory personnel that is not properly labeled shall be discarded and a new specimen collected in the correct manner. Specimens that are unlabeled, labeled incorrectly, or contaminated in some way, by hemolysis or some chemical contamination will be considered unacceptable. Specimens that do not fall into the category of **one-of-a-kind** and thus do not appear on the Exception List will be discarded if not properly labeled with patient's first and last name. If an acceptable specimen cannot be obtained, the test will not be performed. The physician will be notified either by phone or text message on report as is the case with rejected stool and sputum specimens. The Section Supervisor will notify the Collection Supervisor of unacceptable samples; the Collection Supervisor will notify outside source of the sample of improper collection, labeling, transportation, or inadequate identification of samples received from collection sites not under the control of this receiving laboratory. A log will be maintained at the phlebotomy station documenting unacceptable specimens received from outside sources. The Collections Supervisor will periodically review the log to discover problematic outside sources and recommend corrective action to the site.

Blood and urine specimens received with incorrect or missing labels will not be analyzed. These specimens will be discarded. The licensed caregiver will be notified; a LABORATORY SPECIMEN IDENTIFICATION CORRECTION FORM and a Confidential Occurrence Report will be completed and submitted to the Laboratory Department Director.

Blood Bank specimens received with incorrect or missing labels will not be analyzed. They must be recollected. The LABORATORY SPECIMEN IDENTIFICATION CORRECTION FORM and a Confidential Occurrence Report will be completed and submitted to the Laboratory Department Director.

One-of-a-kind specimens (see list below) with erroneous or missing labels may be labeled or corrected **ONLY** By the person who collected or witnessed the collection of the sample **IF** that person signs the LABORATORY SPECIMEN IDENTIFICATION CORRECTION FORM. A confidential Occurrence Report Will be completed as well by the personnel. These forms will be submitted to the Laboratory Department Director.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

One of a Kind Exceptions List:

- a) Body Fluids other than blood and urine (ex. CSF, joint fluid, pericardial fluid, etc.)
- b) Tissue Specimens (biopsies, etc)
- c) Blood for drug levels timed for treatment
- d) Blood Cultures
- e) Neonatal specimens 2.5 mL or greater (this does not include 1-2 small bili tubes, these will require re-collection if incorrectly labeled.)

The person who collected or witnessed the collection of the sample may correct specimen labels on samples collected during a medical emergency. Results will be verbally reported to the licensed caregiver. No results will be released by printer or electronic media until the person who collected or witnessed the collection of the sample signs the LABORATORY SPECIMEN IDENTIFICATION CORRECTION FORM. A Confidential Occurrence Report will be completed as well by the lab personnel. These forms will be submitted to the Laboratory Department Director. The Confidential Occurrence Report will be forwarded to the VP of QA/PI.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

REPORTING OF RESULTS

INPATIENT REPORTS

Lab results on inpatient will be printed to the nursing unit to which the patient is admitted. These reports will print approximately 3 minutes after the test has been reviewed by the technologist and released. A cumulative report will print each day of activity on the patient. It will be placed on the patient's chart each evening, and the old reports will be removed if applicable.

OUTPATIENT REPORTS

Outpatient reports will be faxed to the physician in batches. The batches will be faxed at least once an hour or as soon as 5 reports are ready, whichever occurs first. Physicians can opt to have reports fax immediately or at any specified interval. Outpatient reports will also print in Health Information.

CRITICAL VALUES

All non-microbiological samples will be re-assayed to verify results. Once result is validated by re-assay and review of QC the result will be called to the patient's nurse, RN or LPN, on the nursing unit. In the case of outpatients, results will be called to the physician's office or, if applicable, home health care nurse. If past office hours, physician or home health care will be beeped. Critical results on nursing home residents will be called to the licensed nurse supervising the care of the patient. Verbal Read Back will be requested from the nurse or physician. When repeated attempts fail to notify the appropriate personnel of panic value on in-patients, the house supervisor will be called. If unable to reach physician to report outpatient results, the pathologist on call will be notified.

Critical value results will be called every 24 hours following the above procedure unless noted below.

Critical Values obtained under the following circumstances will be called at the discretion of the technologist.

- Critical values consistent with previous values reported within the last 24 hours will be reported with the comment "CONSISTENT WITH PREVIOUS RESULTS".
- Critical Values on patients whose results are normalizing, will be reported with the comment, "CONSISTENT WITH PREVIOUS RESULTS".
- Critical Values for WBC, HGB and Platelet Counts, normalizing due to a blood or platelet transfusion, will be reported, as "RECHECKED, POST TRANSFUSION"

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

List of Critical VALUES:

	BELOW	ABOVE
Hgb	8 gms. %	-----
Platelet Ct	30,000/mm	1,000,000 on new admission or first occurrence
WBC	1,500	30.0 x 10(3) on new admission or first occurrence
Sodium 110		170
Potassium	2.5	6.0
Glucose60		400
Calcium6-mg. %		14 mg. %
Digoxin -----		2.0 ng/mL.
Lithium -----		2.0 meq/l
Troponin -----		0.4 ng/ml

*Abnormal TROP's called only if patient is NOT in ICU or ER
Call other locations once every 24 hrs. unless a **significant** increase is noted.*

Protime	29.3 seconds
INR	5.0
PTT	120 seconds

Positive Blood Cultures

Cultures positive for VRE, ESBL or highly resistant organism

Positive culture from sterile site (does not include Urine)

Including but not limited to:

Pseudomonas in eye

Haemophilus from any sterile site on a child under 5 yrs.

Positive Spinal Fluid Findings in Microbiology

Cultures positive for MRSA (In-patients called to nurse or physician, Out-patients faxed to physician's office)

VAGRE Cultures positive for Beta Strep Group B will be called to physician or nurse.

TB Cultures are sent to the State Health Department. If a positive smear or culture is found, the State Health Department will call the laboratory, the laboratory will immediately call the physician. If patient is an in-patient, the infection control nurse and in her/his absence, the house supervisor will be notified.

HIV positive test results are immediately called to the pathologist on call. The pathologist verbally notifies the attending physician.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

ONE-DAY SURGERY LAB ORDERS

The surgery committee has determined that the only necessary laboratory work for one-day surgery will be hemoglobin and hematocrit. However, in certain situations, other laboratory work may be requested by the physician.

Any patient who is scheduled for surgery at 8:00 a.m. should arrive at the laboratory prior to 2:00 p.m. of the preceding day. They may present up to 72 hours prior to the 2:00 p.m. cut-off and the results will be accepted as valid by our staff. Those patients who are from out of town may, with the concurrence of their physician, have laboratory work done the preceding day even though they are not scheduled at 8:00 a.m.

If there are any deviations from the above scheduling, the laboratory should make an effort to prevent unnecessary delay for both the physician and patient. Any deviation from the above schedule should be reported to the chief technologist and/or pathologist.

PREADMISSION TESTING

- A. Patients will report to the outpatient office with a requisition from their physician.
- B. All preadmission is then handled in a routine manner.
- C. After completion of the tests all pre-admission reports will print to the pre-admission dept. printer.
- D. The preadmission nurse will review all lab reports and contact the physician if results are abnormal.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

BLOOD BANK

OPERATIONAL POLICIES

Requisitions:

- A. Orders for Crossmatch will be entered into the computer stating number of units needed and the time needed. Number of units to be crosshatched is entered in today.
- B. The name of the physician on the transfusion request (pink sheet) should be the one ORDERING the transfusion. This will not necessarily be the attending physician.
- C. Transfusion request form will be brought to the clinical laboratory.
- D. The time of surgery is obtained from the printed surgery schedule, unless otherwise noted on the requisition.
- E. Any change in time of surgery must be given to the blood bank as early as possible, realizing that obtaining this blood may take four hours or more. It is the surgeons' responsibility to see that is done.
- F. When the blood bank released the Crossmatch report and it prints on the floor, the blood component is available to be picked up. In emergency cases or if there will be a delay, blood bank personnel will call the floor.

SPECIMEN TUBES AND PATIENT IDENTIFICATION

- A. Patient specimens are drawn in color-coded tubes, and the corresponding colors are to be placed on the patient's wristband.
 - 1. Blood will not be drawn from a patient unless he/she is properly identified by a wristband.
 - 2. However, if the patient is not an inpatient, a pre-numbered blood bank wristband (Fenwal Company) will be filled out and placed on the patient. One of the attached numbers will be Placed on each properly labeled tube and the rest of the pre-numbered stickers will accompany the specimen and transfusion request form to the lab. The pre-numbered wristbands may also be used in STAT situations where time does not permit a wristband to be made.
- B. If non-lab personnel draws a T&S or XM specimen from a patient, that person must sign the tubes and color-code both the tubes and the patient's wristband. The color-coding tape will be provided by the laboratory.
- C. Under no circumstances should a color-coded armband be removed from a patient without seeing that the color-code is transferred to a new armband or other means of identification.

ORDER IN WHICH BLOOD WILL BE CROSSMATCHED

- A. STAT or emergency orders take first priority.
- B. The blood on all patients going to surgery in the early a.m. up to and including 9:30 a.m. is typed and screened or cross-matched the day before surgery.
- C. If it is apparent that blood will not be available by the scheduled surgery time, the surgeon and the operating room staff will be notified as soon as possible.
- D. Surgeries scheduled after 9:30 a.m. may be cross-matched early the day of the surgery. These units are set up in order of their surgery time.
- E. Time stated orders are set up in logical sequence.
- F. Orders for blood with no time stated have last priority.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

LENGTH OF TIME BLOOD WILL BE HELD ON CROSSMATCH

- A. Blood cross-matched on an individual will be held for 3 days from the date the specimen is drawn for testing.
- B. If blood is needed past the above 3-day limit, a new Crossmatch must be ordered by the physician and a new specimen must be drawn.
- C. On occasion, blood shortage, emergency, etc., will make it necessary to release blood prior to the 3 days time limit. In the event this becomes necessary, the nursing unit will be advised that the patient's blood is being released. Nursing will alert the physician that the blood has been released prematurely. If it proves necessary, more units will be cross-matched and held as needed.

EMERGENCY TRANSFUSION

- A. The blood bank will not accept responsibility for the compatibility on any unit unless all the type and compatibility testing has been completed on the patient and the donor.
- B. Type specific blood will be administered to patients in emergency situations, e.g., where a delay may be life threatening. The attending physician will be responsible for the transfusion of uncrossmatched type-specific blood. In these cases the responsibility of the blood bank is limited to providing accurately typed blood. The attending physician will need to document, in the patient's record, the need for the type specific, uncross matched unit of blood.
- C. Crossmatch procedure will follow as soon as possible on all units requested.

WITHDRAWING BLOOD FROM BLOOD BANK

Before checking out blood for a patient, the vital signs must be taken on the patient and be within acceptable limits. The vital signs should be recorded on the transfusion request sheet (pink sheet). Blood units will be released to a physician or authorized nursing service personnel when a properly completed transfusion request form is present to blood bank personnel. Only laboratory technologists are authorized to release donor units to the nursing service. No units will be released unless a laboratory technologist is present.

Only one unit of blood for each individual patient may be removed from the blood bank at a time, unless the patient is in surgery or emergency room or two units are to be given to the patient simultaneously. The nurse or other authorized personnel will complete the information in the blood bank transfusion log. This includes time and date of unit checkout, the patient's full name, location of patient, product BUI number, product type, and name of person checking out unit. The technologist will enter in the patient and donor information, and initials of person checking out unit into the Safetrace computer database. When all information has been compared, and found to be acceptable, the technologist will place the component into a biohazard zip-lock bag and give to the nurse for transport to the patient.

Both the nurse and the laboratory technologist must fill out the blood bank issue log before a unit can be issued. If the donor unit cannot be started transfusing to the patient within 20 minutes after issued from the blood bank, the unit MUST be returned to the blood bank unopened.

Type specific (exact match) units may not always be available for a patient. In these cases, type compatible units will be used at the blood bank technologist's discretion. It is not necessary to notify the patient's physician. A list will be available in the blood bank as to what types may be used for substitution.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

A "Circular of Information" is available in the blood bank to any nurse/transfusionist. It provides general information about blood components, including a description, indications, use, and notes on administration. Any questions about components and procedures should be addressed to senior personnel or the blood bank.

NURSING TRANSFUSIONIST RESPONSIBILITY

It is the responsibility of the nurse starting the transfusion to:

1. Positively identify the recipient at the bedside by checking the wristband for name, hospital number, and color code.
2. Verify that the donor tag remains attached to the unit throughout the transfusion.
3. Transfuse component through the appropriate filter.
4. Verification of donor and recipient information should be verified by a second person before transfusion.
5. Issue "Discharge Instructions Following Blood Transfusions" VV#0140 sheets to all outpatients receiving a transfusion and the card with this information to all inpatients.

RETURN AND RE-ISSUE OF BLOOD

1. Units taken from the blood bank should be transfused immediately; the patient's readiness for transfusion should be ascertained before picking up the blood. If an unexpected situation arises which prevents immediate transfusion, the blood must be returned to the blood bank.
2. A unit returned to the blood bank may be re-issued ONLY IF:
 - a. it has not been opened.
 - b. it has not been checked out of the blood bank for longer than 30 minutes.
(exception: a platelet pool; it may be re-issued up to 6 hours after pooling).

ADMINISTRATION OF BLOOD

- A. Blood transfusion is to be authorized only by a physician.
- B. The name of the patient to be transfused, patient identification number(s), color code (or Fenwal number), patient blood type of the component, and donor number of the component should all be verified. This information found on the patient's wristband, the blood component, the component unit tag, and the transfusion request form, should be verified and should all be in agreement. Any discrepancy should be reported to the blood bank and must be resolved before initiating the transfusion.
- C. No vent is needed when giving blood contained in a plastic bag.
- D. A regular blood filter should be used when transfusing red cells.
- E. A blood component recipient set shall be issued by the blood bank personnel when platelets are to be transfused.
- F. No solution other than 0.9% (normal) saline or fresh frozen plasma are to be added to, administered with, or given in the same line as blood components. This includes drugs, medications, Ringers lactate, etc.
- G. Once the blood bag has been entered, the unit must be given within 4 hours.

DISPOSAL OF EMPTY BLOOD OR BLOOD PRODUCT BAG

Empty bag will be placed in the biohazard container.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

REPORTING OF SUSPECTED TRANSFUSION REACTIONS

The responsible nurse shall notify the patient's physician and the blood bank immediately of any suspected reaction, and complete a transfusion reaction investigation form VVH-012. Maintain suspected blood and its attendant attachments in as sterile a condition as possible to assure that any subsequent bacteriological culture, if needed, will give reliable results.

INVESTIGATION

In a suspected transfusion reaction:

- a. Discontinue transfusion. Do not disconnect transfusion set at the time.
- b. Call the laboratory immediately so that a post-transfusion specimen can be collected as quickly as possible for an immunohematological investigation.
- c. Using sterile technique, disconnect and bring entire transfusion specimen set with blood and any IV fluids to the blood bank (even if empty) with the completed investigation form (VVH-012).
- d. Send any urine specimens collected during the next two hours to the blood bank. The blood bank will call if any additional specimens are required.
- e. The attending physician and pathologist will be notified of any laboratory results indicating a hemolytic transfusion reaction. Findings of an allergic or uncomplicated febrile reaction will be reported to the floor, and the physician as necessary.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

FRESH FROZEN PLASMA

This component must be thawed before issuing. Call the blood bank when the physician gives orders to transfuse this component. Allow 30 minutes for thawing and other preparation. Thawing will not be done until the floor is ready to transfuse the patient. Fresh frozen plasma may be given when a patient's Prottime and/or APTT are prolonged. Fresh frozen plasma is available in two blood types for all patients; "A" plasma for "O" and "A" patients; "AB" plasma for "B" and "AB" patients, and if needed, may be given to "O" and "A" patients. The blood bank maintains a total FFP stock of 12 units minimum. Once thawed, it must be given within 24 hours.

CRYOPRECIPITATED AHF

This component must be obtained from OBI and thawed before using. Call the blood bank when the floor has orders to transfuse this component. Allow 30 minutes for thawing and other preparation. Thawing will not be done until the floor is ready to transfuse the patient. For patients deficient in coagulation Factor VIII or Fibrinogen, one unit of concentrate will supply approximately 80 units Factor VIII and approximately 150 mg. Fibrinogen. Product is to be used within 6 hours of thawing and 4 hours of pooling.

PLATELETS

Because of their short expiration date, platelets are not kept at VVRH. When the physician order platelets to be given, notify the blood bank so that they can be ordered from OBI. Aphaeresis platelets (PLAP) are supplied in a single bag or in 2 connected bags that can be combined into 1 shortly before use. After checking the patient's vital signs, call the blood bank, and notify them you are coming after the platelets. The floor should order a platelet count to be drawn one hour after the platelets have finished transfusing. This must be done to determine if the patient is benefiting from the platelet transfusion.

BLOOD BANK SUMMARY

- A. Blood needed prior to 9:30 a.m. will be X-matched on previous day or evening shift.
- B. X-matched orders for 9:30 a.m. and after can be X-matched on the morning of surgery.
- C. Blood will be held 3 days from day of Crossmatch or 3 days from the date of XM sample being drawn, whichever is shorter.
- D. Blood bank technologist will notify nursing service when any blood is released for an emergency from a cross matched patient to make blood available for "the emergency". It is the responsibility of nursing service to notify the physician of the X-matched patient that blood is no longer available.
- E. Type and Rh specific blood should be administered to "emergency" patients when time permits. When this is not possible, group O negative RBC's can be given.
- F. No blood may be returned to the bank for re-issue if it has been out of the refrigerator for 30 minutes. If the hermetic seal is broken, blood may not be reissued regardless of the time when the unit was removed form the bank.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

BLOOD BANK TESTS WITH SPECIAL HANDLING

CROSS MATCH

Prepared donor units will be held for 3 days from the day the XM sample is drawn. If released early, the blood bank staff will notify the nursing station. Color-coding is required for patient identification.

TYPE AND SCREEN

Color-coding is required for specimen identification. Specimen can be used to Crossmatch units for three days, with the day sample is drawn being day 0.

FETAL CELL SCREEN AND RHO GAM

EDTA blood specimen must be drawn post-delivery from the mother.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

CHEMISTRY

CHEMISTRY TESTS WITH SPECIAL HANDLING PROCEDURES

AMMONIA

Ammonia should be drawn in a green tube. The tube should be placed on ice, centrifuged immediately and analyzed within 20 minutes. The tube should be filled completely and must be kept tightly stoppered at all times.

CORTISOL

No patient preparation is required, however, an a.m. or a p.m. sample is usually drawn.

GENTAMICIN/VANCOMYCIN

Peak: 1 ml. serum collected 30 – 60 minutes AFTER entire dose given.

Enter PEAK in Special Instructions. The nursing unit must call the lab with the exact time the sample is to be drawn.

Trough: 1 ml serum collected immediately prior to next dose.

Enter TROUGH in Special Instructions and date/time of collection on the order.

GLUCOSE TOLERANCE: Select the appropriate duration or specify on written order.

1 ml. serum and 5 ml. urine for each sample. Label each sample FASTING, 30 minutes, 1-hour, etc.

Collect fasting sample (plasma and urine). Administer 100 g. glucose solution (or 1 g. glucose /kg. body weight nonpregnant adult) to ambulatory adult patient who has fasted 8-12 hours. Collect samples FASTING, 30 minutes, 1 hour and hourly. Specify duration.

1° GLUCOLA

Give 1 full glucola beverage, instruct patient to return before one hour has transpired. Draw 1 green top tube exactly 1 hour after beverage was consumed.

LACTIC ACID

Specimens should be drawn in a gray-top tube.

Collected blood should be cooled on ice immediately and separated from the cells within 3 hours.

Sample should be collected without the use of a tourniquet, avoid hand clenching. If a tourniquet has been used, it should be released for one minute prior to drawing blood.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

LIPID RISK PROFILE

This consists of total cholesterol, HDL cholesterol, triglyceride, and calculated LDL cholesterol. Patient should fast for 12-14 hours prior to the test to obtain an accurate fasting triglyceride level.

MEDICAL ETHYL ALCOHOL

Blood specimens drawn for ethyl alcohol determination should use a betadine swab for cleansing area to be stuck rather than using the usual alcohol swab.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

TYPE OF COLLECTION CONTAINERS FOR URINE CHEMISTRY TESTS

CREATININE CLEARANCE

24-hour urine in "P" container with 1 m. of serum.

URINE AMYLASE

1-hour collection of spot urine

DRUG SCREEN (URINE)

Spot urine specimen.

URINE OSMOLALITY

Spot urine specimen

PROTEIN, 24 HOUR URINE TEST

24-hour urine in "P" container

URINE COLLECTION PROCEDURES FOR CHEMISTRY

ONE-HOUR URINE (for AMYLASE or other test)

1. Collect all urine in a 1-hour period.
2. Do not discard first voided specimen.
3. Deliver properly labeled specimen to chemistry lab after collection period.

TWENTY-FOUR HOUR SPECIMEN

- A. Most quantitative urine tests require a 24-hour specimen.
(Example: Creatinine Clearance, Creatinine, Total Protein, 17 Hydroxy, Protein Electrophoresis etc.)
- B. Collection:
1. The patient should be instructed to empty the bladder at the beginning of the period (example, 8:00 a.m.) and discard the urine.
 2. Save all urine passed until 8:00 the next morning, emptying the bladder at that time and adding this urine to the 24-hour specimen.
 3. The urine should be kept in a clean receptacle and refrigerated.

Urine collected from catheters in the plastic collection bags may be emptied into the appropriate 24-hour collection container every 8 hours rather than at more frequent intervals. These containers with entire specimen should be kept refrigerated and brought to the chemistry lab with requisition immediately upon completion of 24-hour collection period.

Nursing staff will be responsible for the collection of specimens into the proper container for the test required

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

COAGULATION

COUMADIN THERAPY PATIENTS

A Prottime with INR is performed to monitor coumadin therapy.

HEPARIN THERAPY PATIENTS

A PTT is performed to monitor heparin therapy.

For those patients receiving HEPARIN by I.V. bolus technique, the PTT blood specimen must be scheduled 3 ½ hours after bolus.

The clinical laboratory performs the following tests for coagulation defects.

- Prothrombin Time (PT)
- Clot Retraction
- Bleeding Time, Mielke
- Partial Thromboplastin Time (PTT)
- Fibrinogen
- Platelet Count

Other tests may be requested, but they will be sent to the reference lab.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

HEMATOLOGY

ROUTINE COMPLETE BLOOD COUNTS:

The admission routine laboratory procedure for blood counts includes the measurement of the hemoglobin, hematocrit, WBC, RBC, Plt. Ct, RBC Indices and automated differential.

SPECIAL PROCEDURES:

BLOOD SMEAR FOR PATHOLOGIST REVIEW

Order PERIPHERAL SMEAR for review and evaluation of blood smear by a pathologist. The clinical laboratory will collect several blood smears from the patient. An evaluation of the blood smear will be reported to the attending physician by the pathologist.

BONE MARROW ASPIRATES AND BIOPSIES

Nursing personnel are responsible for:

1. Send bone marrow orders to lab via computer.
2. Preparing the patient for the procedure to be done.
 - a. B.M. Aspirate – Patient needs to be dressed in a hospital gown opened in front.
 - b. If a biopsy, the patient needs to have on a hospital gown. (Patient must have panties and/or pajama bottoms removed.)
3. Bring the patient and the chart to where the procedure is to be done. (Usually E.R.)
4. Attach special procedure to front of chart. The pathologist will explain the procedure to the patient for signature
5. Return the patient to the room. Return the chart to the desk.

The final report will include a differential count of the smear preparation and examination of the clot specimens. A formal report of bone marrow examination is prepared for the chart. Both the smears and sections are filed in the pathology laboratory for future reference and teaching purposes.

NASAL SMEARS FOR EOSINOPHILS

Nursing brings the slide with mucous smeared thinly on it to the hematology lab for Wright's stain and observation for eosinophils.

SPINAL FLUID/BODY FLUID

Specimen containers must be clearly labeled with patient's name, room number, and date. Hand specimen directly to a medical technologist..

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

SEMEN ANALYSIS INSTRUCTIONS

1. Refrain from intercourse 2-3 days prior to time test is done.
2. Semen specimen for analysis must be received in hospital lab between the hours of 7 am to 9 a.m., Monday through Friday only. (Semen analysis will not be done on holidays.)
3. NO specimens will be accepted that are not in suitable containers, i.e. semen collection vials, UA cups, blood dilution vials. Not suitable containers include condoms. The laboratory will provide a container upon request.
4. Collect specimen according to physician's instructions. These instructions may include making sure the entire specimen is collected, or on occasion, a split ejaculation may be required.
5. Transport immediately to Valley View Regional Hospital Laboratory. Please keep specimen at body temperature by placing container under armpit. You must have the specimen to the hospital laboratory within 30 minutes after collection, otherwise results will be invalid and test will have to be repeated.
6. When you arrive at Valley View Regional Hospital, come directly to the Laboratory and hand the sample to a lab employee. Then, go to admitting to complete the required paperwork.
7. Please be certain that the specimen container is labeled with patient's name and time specimen was collected.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

MICROBIOLOGY

MICROBIOLOGY GENERAL INSTRUCTIONS

- A. Consideration in Collection and Handling of Specimens
 1. Collect prior to antibiotic therapy.
 2. Collect material from where suspected organism will most likely be found.
 3. Observe asepsis in collection of all specimens.
 4. Instruct patients clearly.
 5. Use proper containers.
 6. Deliver specimen promptly.
 7. Provide sufficient information to the lab.
- B. Criteria for Rejection of Bacterial Specimens
 1. Unlabeled or improperly labeled specimens.
 2. Prolonged transport.
 3. Improper or damaged/leaking container.
 4. Oropharyngeal-contaminated sputum.
- C. Specimen Containers
 1. Proper sterile containers for collection of specimens should be available as floor supplies.
- D. Criteria for Rejection of Specimen for Routine Urinalysis, Ova & Parasites, Clostridium difficile
 1. Unlabeled or improperly labeled specimen (must have full name, date and time of collection).
 2. Prolonged transport
 - a. Any urine that has been at room temp. longer than 1 hour (specimen must be refrigerated).
 - b. Formed stools and those containing barium will not be accepted for Ova & Parasites or C. diff.
- E. Procedure if specimen is unacceptable
 1. Notify person responsible for collection and requiring a new specimen.
 2. Notify requesting physician if a new specimen can not be obtained and explain the unsuitability of the specimen.
 3. If specimen is rejected, call up worksheet, send report to be placed on patient chart.
 - a. State reason for rejection, the name of person notified, and the time.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

SPECIMENS REQUIRING SPECIAL PREPARATION

BACTERIOLOGY SPECIMENS

<u>PROCEDURE</u>	<u>RESPONSIBILITY FOR COLLECTION</u>	<u>SPECIMEN CONTAINER</u>	<u>COMMENT</u>
Blood Cultures	Nursing service sends requisition to lab.	Lab will provide	Cultured both aerobically and anaerobically. See pg. 34
Stool	Nursing service container	Disposable stool	Formed stools will not be tested. See pg. 36 Samples to lab ASAP
Exudates of Transudates	Physician nursing service	Sterile tubes or cups	Immediate transp See pgs. 30
Wound	Physician	Sterile swabs, Syringe	Immediate transp. See pg. 30
Spinal Fluid	Nursing Service	Three sterile CSF tubes	Immediate transp.
Urine	Nursing Service	Sterile urine container	Sample to lab ASAP See pg. 31
Throat, Naso-Pharyngeal	Nursing Service	Culturette or N/P swab	See pg. 33
Sputum Cultures	Respiratory Therapy	Sputum cups	See pg. 28-30
Acid Fast Cultures:			
A, Sputum, T.B.	Respiratory therapy	1 st early morning specimen. Sputum cup.	See pg. 29-30
B, Gastric, T.B.	Nursing Service	Sterile container	See pg.30
C, Urine, T.B.	Nursing Service	1 st early morning specimen. Sterile urine container	See pg. 30
D, Tissue, T.B.	Physician	Sterile tube or dish	See pg. 30
E, Small needle Biopsies, T.B.	Physician	Put in sterile saline solution	See pg. 30
Culture for Neisseria	Physician	Culturette	Sample to lab ASAP See pg. 37

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

BACTERIOLOGY SPECIMENS cont.

<u>PROCEDURE</u>	<u>RESPONSIBILITY FOR COLLECTION</u>	<u>SPECIMEN CONTAINER</u>	<u>COMMENT</u>
Anaerobic Cultures	Physician	Syringe, preferred,	Transport to lab immediately See pg.33
Walk In Out-pt. Cultures	ER Nursing Serv. Lab collects c.c. urine or stool	See specific inst for source	
Chlamydia	Physician	Collection swab & special transport media obtained from lab	Transport to lab immediately

PARASITOLOGY SPECIMENS

<u>PROCEDURE</u>	<u>RESPONSIBILITY FOR COLLECTION</u>	<u>SPECIMEN CONTAINER</u>	<u>COMMENT</u>
Stool for Ova and Parasites, blood	Nursing Service (OP by lab)	Disposable plastic container	Formed stools or those containing barium will not be tested. Samples to lab ASAP.
Purged stool for Ova And parasite	Nursing Service	Disposable stool container	To lab <u>immediately</u> after collection to examine for motile parasites
Peri-anal preparation For enterobius (pinworm)	Nursing Service	Cellophane tape preparation of glass slide	
Wet mount for Trichomonas	Physician	Swab in ½ m. sterile saline solution	Specimen must not be allowed to dry. Bring to lab for immediate exam.

MYCOLOGY SPECIMENS

Fungus Culture:			
Sputum	Respiratory Therapy	Disposable sputum	1 st a.m. specimen, deep cup cough. See pg. 29
Tissue	Nursing Service	Sterile petri dish	Usually surgical specimen
Hair, skin or nail clippings	Physician or Med. Tech.	Petri dish	

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

MICROBIOLOGY LABORATORY PROCEDURES

- A. All bacteriology specimens and floor-collected requisitions shall be labeled with the date and time of collection. All specimens will be delivered directly to the microbiology laboratory where they will be cultured immediately after arrival.
1. A 2nd urine specimen will be requested on specimens not received within one hour of collection.
 2. A 2nd specimen will be requested on all other specimens not received within two hours of collection. In all instances, the ward of physicians will be notified to resubmit a specimen before any are thrown away in the event that repeat samples are impossible to obtain.
- B. Specimen collection and processing
1. No more than 4 blood cultures will be drawn in a day.
 2. No more than 1 stool per day nor a total of over six stools will be processed for ova and parasites.
 3. The second of a duplicate sample from the same site in one day will not be processed until the physician has been notified.
 4. Only one sputum sample per day will be processed.
- C. Read-out of Cultures
1. Urine
 - a. If three or more bacterial species are recovered from one urine, they will not be speciated nor will susceptibility tests be set up. The report will read, "Mixed Culture-Probably Contaminated". (If two species are recovered, there is an 80% chance of contamination).
 - b. Foley tips will not be cultured.
 2. Sputum
 - a. Sputa which on gram stain show only squamous epithelial cells and an absence of polymorphonuclear leukocytes will be considered "spit" and will not be processed.
 3. Wounds
 - a. Culture for anaerobes will be accepted only if collected properly and received within 10 minutes after collection.
 - b. If only epithelial cells and no bacteria or polyps are seen on grams stain, wound cultures will be rejected.
- D. Reporting
1. A report of "mixed flora" will be issued for the following:
 - a. Lower respiratory tract ("mixed respiratory flora"): Neisseria sp. Staphylococcus epidermidis; Corynebacterium sp, and Hemophilus sp.
 - b. Skin ("mixed cutaneous flora"): Staphylococcus epidermidis, Corynebacterium sp., yeast, Bacillus sp, Streptococci, not beta or enterococci
 - c. Perirectal, colostomy stoma, etc. ("mixed intestinal flora"): Enteric coliforms, enterococci, bacteriodes, clostridia
 - d. Vagina ("mixed vaginal flora"): Lactobacilli, Staphylococcus epidermidis, Corynebacterium sp., Streptococci, not beta enterococci
 - e. Mouth or throat ("mixed oropharyngeal flora"): Streptococci, not beta, enteric coliforms, Corynebacterium sp.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

**MICROBIOLOGY COLLECTION AND HANDLING PROCEDURES
BY SPECIMEN TYPE**

SPUTUM: MICROBIOLOGY AND CYTOLOGY

- A. Important Comments:
1. To obtain the best results the first early morning specimen is needed by the laboratory.
 2. Whenever possible, specimens should be obtained before antibiotics have been administered.
 3. Even with a specimen that is properly collected and there is no delay in transport, it is still very difficult for the lab to determine the etiological agent of bacterial pneumonia from an expectorated sputum. Any improperly collected specimen or any delay in bringing a properly collected specimen to the laboratory makes it impossible for the lab to give the physician any useful clinical information.
- B. Methods for Collection of Sputum Specimens:
1. Expectorated Sputum:
 - a. All sputum specimens will be collected by respiratory therapy.
 - b. The patient must understand the type of specimen he is expected to produce.
 - c. The specimen has to be material obtained from the lungs that can be produced from deep cough.
 - d. Under NO circumstances should a sputum container be placed in a patient's room and he be told to "spit" in it.
 2. Transtracheal aspirations are recommended for seriously ill or comatose patients who have pneumonia. This procedure is performed by the physician.
- C. The following specimens cannot be processed by the laboratory
1. Any specimen that is saliva or spit.
 2. Any specimen that is unduly delayed in transport to lab after collection. If there is any delay in inoculation of the culture to the appropriate media the pathogen may die.
 3. "24-hour" sputum specimens will not be processed by the lab.
- D. The following procedures need to be run on the first early morning expectorated sputum:
1. Mycobacterium culture – same as TB culture, AFB culture, or acid-fast culture.
 2. Mycology – same as fungus culture
 3. Cytology
 4. Routine bacteriology culture – or may be ordered as sputum culture
 - a. The following combinations can be performed on one early morning specimen:
 1. Routine, AFB & mycology
 2. Routine, cytology & mycology
 - b. AFB & cytology cannot be done on one specimen. If the physician orders all of the above tests, the lab can do A or B on 3 consecutive days (you can obtain only one early morning sputum specimen). Ask the physician to indicate which test is first.
 - c. If the physician orders all of the above tests you must obtain 3 early morning sputum specimens on 3 separate days. Verify with the physician which test is to be done first.
 - d. The reason why one specimen cannot be used for all of the above tests: AFB, and cytology's have different concentration techniques that must be performed to enable results of these tests to give of clinical value to the physician.
- E. Cultures for Acid Fast Bacillus
1. All specimens will be sent to the State Health Dept. for smear and culture effective 3/3/97.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

- F. Special instructions for sending AFB culture report to State Health Dept.
1. Sputum: should be collected in a sterile container and can be refrigerated. Three separate early morning sputum specimens should be collected on successive days. A volume of 5-10 m. per specimen is adequate. Sputum specimens containing less than 2 m. are reported as "quantity not sufficient".
 2. Nebulized sputum: These specimens are usually very watery and should be labeled as "nebulized" so that they will not be mistaken for saliva.
 3. Stool: Stool specimens are not acceptable for the detection of mycobacterium.
 4. Urine: A series of 3, midstream, clean-catch specimens, voided early in the morning on three successive days should be submitted in a sterile container.
 5. Tissues, bronchial washings and mucopurulent drainage: These are acceptable specimens for detection of mycobacterium and they should be collected in a sterile container. Do NOT add saline, preservatives, fixatives, or other fluid. Collect at least 1 gram if possible.
 6. Swabs: Swabs are not recommended for the detection of mycobacterium.
 7. Sterile body fluids: Sterile body fluids are acceptable specimens for detection of mycobacterium and should be collected in a sterile container and kept at room temperature.
 8. Gastric specimens: Gastric specimens are not suitable for testing by the Public Health Laboratory.

References: Edwin H. Lennette, Earle H. Spaulding, and Joseph P. Truant, 1999. Manual of Clinical Microbiology. Seventh Edition, American Society for Microbiology. W. Robert Bailey and Elvyn G. Scott, 11th edition. "Diagnostic Microbiology".

WOUND SPECIMENS

- A. General Information
1. Wound culture technique is determined in large measure by the existing situation. The site and method of taking material for culture are determined by the nature of the wound and whether evidence of obvious infection exists.
 2. Wounds involving considerable trauma or penetrating wounds may contain anaerobes and should be collected and handled according to the procedure entitled "Selection, Collection and Transport of Specimens for Anaerobic Culture."
- B. General Methods of Collection
1. Boils, furuncles and carbuncles:
 - a. Cultures from such lesions must be taken with care to avoid contamination with organisms from the skin surface.
 - b. The area around and over the lesion should be thoroughly cleansed with betadine.
 - c. Pus or other material in the lesion should be removed and a sterile swab for a culturette used to gently swab the base of the lesion. If the lesion is not open, the physician may assist in obtaining specimen.
 - d. Replace the swab in the culturette and crush the ampoule containing Stuart's Medium.
 - e. Bring culture immediately to lab for processing.

References: Israel Davidsohn, M.D. and John Bernard Henry, M.D., 1996. Clinical Diagnosis. 19th edition.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

URINE CULTURES

- A. General Comments
1. Whenever possible, the specimen should be obtained before antibiotics have been administered.
 2. The best laboratory techniques for counting and identifying bacteria are of little value if the urine specimen is not collected properly and delivered to the laboratory without delay.
- B. Methods for Collection of Urines
1. Preferred method: clean-catch midstream technique
 - a. In all instances arrangements for the collection must be the responsibility of an adequately trained individual.
 - b. Instructions for patients should be both verbal and written. Under NO circumstances should a list be left in the patient's room and the patient be told to collect the specimen.
 - c. Sterile mid-stream urine collection kits are used. The instructions for proper collection of specimens are in each kit. The manufacturers instructions must be followed explicitly when using this kit.
 - d. Nursing personnel must know the procedure and make sure that the patient understands exactly what he/she is to do before collection of the urine is ever started.
 - e. The correct procedure for collection of clean-voided mid-stream urines not using the stage kits is found in the Nursing Procedure Manual. Method for collection of mid-stream U.A. from a female is on page 32, from a male on page 32.
 2. Catheterization – to be performed only by specifically trained personnel. The procedure for catheterizing is found in the Nursing Procedure Manual.
 - a. Catheterization for collection of urine cultures only is not recommended because it been shown to carry a small but definite risk of introducing infection, particularly in elderly patients confined to bed.
 - b. Indwelling catheter: follow the procedure written up in the Nursing Procedure Manual for Collection of Urine Specimens from Catheters.
- C. Reasons Why a Specimen Will Not be Processed for Culture and a New Specimen Will Have to be Collected:
1. Any specimen collected other than the previously mentioned techniques.
 2. Any specimen received in an unsterile container.
 3. Any undue delay in the transport of the specimen to the laboratory after it is collected.
 4. Any specimen that is mislabeled.
- **If for any of the above reasons a urine specimen is rejected by the lab, the nursing personnel will be notified as to the reason, and this will be recorded on the patient's chart.
- D. Brief Explanation for the Importance of Bringing a Urine Specimen to the Lab as Soon After Collection as Possible:
1. A urine sample that contains only 2,000 bacteria per ml. of urine when voided can contain 128,000 bacteria per ml. of urine if allowed to stand for 2 hours. Thus, a colony count of 2,000 bacteria per ml. of urine would NOT be considered clinically significant, but a colony count of 128,000 bacteria per ml. of urine would indicated urinary tract infection.

References: Arthur L. Barry, P. Byrd Smith, and Marvin Turck, 1975.
Laboratory Diagnosis of Urinary Tract Infections. Cumitech 2.
American Society for Microbiology
Edwin H. Lennette, Earl H. Spaulding and Joseph P. Truant, 1999.
Manual of Clinical Microbiology 7th Edition, American Society of Microbiology.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

CLEAN CATCH URINE

Instructions for collection (Male)

1. Grasp blue funnel lid at thumb notch and lift to remove.
2. Place blue funnel lid on flat surface with specimen cap face up.
3. Open packet of three towelettes.
4. Retract foreskin if present.
5. With first towelette, cleanse the meatal orifice with a single downward stroke. Discard towelette.
6. Repeat step 5 with the tow remaining towelettes.
7. First void in toilet. As you continue to void, bring collection funnel (holding by the tabs) into "midstream" to collect urine specimen.
8. Remove collection funnel from specimen container, be twisting slightly, and discard.
9. Without touching specimen container cap, pick up blue funnel lid and screw cap onto specimen container.
10. Remove the blue funnel lid from cap by lifting at one corner.
11. Fill in complete information on label and attach to specimen container.

Instructions for collection (Female)

1. Grasp blue funnel lid at thumb notch and lift to remove.
2. Place blue funnel lid on flat surface with specimen cap face up.
3. Open packet of three towelettes.
4. While seated on the toilet, spread labia major (outer folds).
5. With first towelette, wipe one side of the labia minor (inner fold) using a single downward stroke. Discard towelette.
6. With the second towelette, repeat procedure on opposite side using a single downward stroke. Discard towelette.
7. With third towelette, cleanse meatus (center area) with a single downward stroke. Discard towelette.
8. First void in toilet. As you continue to void, bring collection funnel (holding it by tabs into "midstream" to collect urine specimen.
9. Remove collection funnel from specimen container, by twisting slightly, and discard.
10. Without touching specimen container cap, pick up blue funnel lid and screw cap onto specimen container.
11. Remove the blue funnel lid from cap by lifting up at one corner.
12. Fill in complete information on label and attach to specimen container.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

THROAT CULTURES

- A. To obtain the best results it is important that material for a throat culture be obtained before antibiotics are started and taken in a proper manner.
- B. Method for Collection
 - 1. Use the sterile swab from a culturette.
 - 2. With the patient's tongue depressed, and throat well exposed and illuminated, rub the swab firmly over the back of his/her throat, both tonsils or tonsillary fossae, and any areas of inflammation, exudation or ulceration.
 - 3. Care must be taken NOT to touch the tongue or the lips with the swab.
 - 4. Replace the swab in the culturette, break the small ampoule, which contains Stuart's media.
 - 5. Bring the culture immediately to the lab.

Reference: W. Robert Bailey and Elvyn, G. Scot, 11th Edition. "Diagnostic."

ANAEROBIC CULTURE

- A. Essential Information
 - 1. Anytime an anaerobic culture is requested the laboratory must be notified before the culture is collected so that the anaerobic setup can be ready for immediate inoculation of the specimen.
 - 2. The specimen must be transported immediately to the laboratory after collection due to the fact that anaerobes die rapidly after exposure to oxygen.
- B. Methods for Collection of Specimens for Anaerobic Culture
 - 1. The best specimens are obtained by aspiration with needle and syringe
 - 2. Tissue biopsies
- C. Acceptable Specimens for Anaerobic Culture
 - 1. CNS-cerebrospinal fluid, abscess material, tissue biopsy
 - 2. Dental, ENT-carefully aspirated or biopsied material from oral abscesses.
 - 3. Pulmonary-transtracheal aspirate, direct lung aspirate, thoracentesis fluid, tissue biopsy.
 - 4. Abdominal-paracentesis fluid, aspirate from abscess, tissue biopsy.
 - 5. GU-suprapubic aspirate or urine, aspirate from abscess, tissue biopsy, cervical material collected by direct visualization.
 - 6. Other – blood, bone marrow, bile, joint fluid, muscle or soft tissue biopsy.
- D. Specimen that Should NOT be cultured for Anaerobes
 - 1. Throat or nasopharyngeal swabs.
 - 2. Sputum, bronchoscopic specimens.
 - 3. Feces or material from sites likely to be directly contaminated with feces, such as GI fistulas, colostomy stomata.
 - 4. Voided or catheterized urine.
 - 5. Vaginal or cervical swabs.
 - 6. Material from superficial lesions not collected properly to exclude contaminants of skin, mucosa, etc.
- E. PROPER SELECTION AND COLLECTION OF SPECIMENS FOR ANAEROBIC CULTURE IS ESSENTIAL FOR LABORATORY REPORTS TO BE OF VALUE. THE PHYSICIAN SHOULD COLLECT SPECIMENS FOR ANAEROBIC CULTURE..

References: V.R. Dowell, Jr. and T.M. Hawkins, 1995. Laboratory Methods in Anaerobic Bacteriology, CDC Laboratory Manual. Stephen Allen, V.R. Dowell, Michael Stargel, and James W. Smith, 1996. Clinical Anaerobic Bacteriology, ASCP-CAP Workshop #744.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

COLLECTION AND HANDLING OF BLOOD CULTURES

A. INTRODUCTION

The prompt detection, recovery, identification and appropriate antimicrobial susceptibility testing of microorganisms from blood constitute one of the most important procedures performed in a clinical laboratory. Microbial invasion of the bloodstream is a very serious situation with a significant mortality of up to 80%, depending on associated conditions. Blood is normally sterile. Any organism found in blood cultures is considered clinically significant, although the possibility of contamination (2-3%) should be considered and expected even under optimal conditions.

B. PURPOSE:

To detect the presence of microorganisms in the bloodstream (Bacteremia) or their presence associated with or secondary to septic process (septicemia).

C. PROCEDURE

A two-bottle culture system is used: The BACTEC Blood Culture Procedural Tray System is used.

Preparation of BACTEC Procedural Tray:

1. Prior to use, inspect all vials and discard any vials showing evidence of contamination.
2. Inquire if patient has history of adverse reaction to iodine, if so use sterile alcohol pads to thoroughly clean the venipuncture site.

Skin Preparation:

1. Open the PERSIST package by tearing completely through at the side notches and twisting.
2. Leave package over the end of the swabstick to prevent gloves from becoming covered by solution.
3. Apply PERSIST by beginning at the intended venipuncture site, working in a circular motion with friction, covering an area for 2-3 inches in diameter.
4. Allow PERSIST to air dry.
5. DO NOT touch or palpate the area after cleansing.

Preparation of BACTEC vials:

1. Remove flip-off caps from BACTEC culture vials
2. Wipe tops of vials with a single alcohol swab and allow to dry
3. Mark BACTEC culture vials labels at desired fill level.

Preparation of Vacutainer Safety-Lok Blood Collection set.

1. Peel apart package and remove blood collection set.
2. Thread the luer end of tubing set into VACUTAINER holder.
3. Remove sheath-covering needle at wings.

Collect Blood Sample

1. Perform venipuncture by holding wings as shown. DO NOT hold by grasping the yellow safety shield
2. Select aerobic bottle first. Hold bottle upright.
3. Push and hold VACUTAINER holder over top vial to puncture septum
4. Remove holder from vial. Immediately push and hold holder onto second vial.
5. Collect blood to desired fill level on second vial. Remove holder from vial.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Remove Needle from Venipuncture Site

1. When final vial is filled, remove the tourniquet.
2. Withdraw the needle from the site by grasping the wings and gently pulling. DO NOT withdraw by holding the yellow safety shield. Cover the puncture site with a sterile gauze pad and apply mild pressure.
3. To activate the safety shield, grasp either wing with one hand and grip the yellow safety shield base with the other hand. Slide the wings back into the rear of the safety shield until a snap is felt to ensure that the needle is retracted completely and locked into place.

Patient Skin Care:

1. After all specimens have been collection remove iodine from around the collection site suing sterile alcohol swab.
2. Place a clean cotton ball over the site and hold pressure for 2 minutes, check for excessive bleeding, if present remain until bleeding stops. Contact nurse if bleeding does not stop.
3. If bleeding has stopped, place a piece of tape over the clean cotton.

Label Vials:

1. Label all vials with the computer-generated label. Do not apply label over the BACTEC barcode.
2. Transport bottles to the lab in a biohazard bag.

Disposal of Waste Materials:

1. Dispose of VACUTAINER SAFETY-LOK blood collection set into the nearest SHARPS container. DO NOT disassemble the blood collection set.
2. Dispose of other used materials in the appropriate waste container.

FECES

A. Methods of Collection

1. The procedure for collection of feces is found in the Nursing Manual.
2. Stool specimens must not be contaminated with urine as urine can kill pathogens.
3. Rectal swabs are acceptable but less satisfactory results are obtained with this type of specimen than with a fresh stool specimen.
4. Rectal swab must be inserted past anal sphincter and have fecal material present.

B. Multiple Stool Specimens are Necessary for Maximum Recovery of Pathogens.

1. The number of examinations necessary to diagnose or to rule out a given infection is difficult to establish.
 - a. In general for both bacterial and parasitological examinations at least three specimens should be examined.
 - b. The specimens are to be collected on successive or alternate days.
2. Salmonella and Shigella are present in appreciable numbers only during the acute stage (first 3 days) of a diarrheal disease; therefore, fecal specimens should be obtained within this period whenever possible.

C. Specimens Must be Brought to the Lab Immediately for Inoculation as Shigella and salmonella will not survive the changes in pH, which occur with a drop in temperature.

References: Edwin H. Lennette, Earle H. Spaulding, and Joseph P. Truant, 1995. Manual of Clinical Microbiology. Sixth Edition, American Society for Microbiology. W. Robert Bailey and Elvyn G. Scott, 1994. Ninth Edition, Diagnostic Microbiology.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

STOOL REJECTION POLICY

- SUBJECT:** Stool Specimen Limitation Policy
- PURPOSE:** Patients who develop diarrhea in the hospital almost never have routine enteric pathogens or parasites. They often do have *C. difficile* or a non-infectious condition.
- POLICY:** Stool specimens from patients who have been hospitalized for >3 days should not be cultured for routine enteric pathogens or examined for ova/parasites unless there are clinical reasons to do so. Therefore, specimens submitted for **Stool Culture or O&P exam >3 days from the patient's admission date will be routinely REJECTED for testing** with few exceptions.

- NO FORMED STOOLS WILL BE ACCEPTED FOR ANY STOOL STUDIES (This includes culture, O&P, *C. difficile*, Rotavirus).

Exceptions to the policy:

1. Patient was admitted with diarrhea, and an initial specimen was not obtained within 3 days.
2. Patient is severely immunocompromised (transplant, cancer, AIDS).
3. There is epidemiological evidence of nosocomial acquisition.
4. The physician requests that we run the tests.

Lab: The medical technologist should make the decision to reject a specimen based on the above information.

1. Call the floor and let the nurse know why the specimen is being rejected.
2. Update the order with the comment "requested test does not meet hospital criteria".
3. Credit the patient.
3. The specimen will be preserved in an appropriate manner in Micro for a limited time period in case the physician calls to request we run the test.
4. If the physician requests that the test be performed, the lab will perform the test and document the physician's request on the report..

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

MICROBIOLOGY SPECIMENS REQUIRING SPECIAL PREPARATION

Smears for Gram Stain

Most commonly done from urethral discharge from male suspected of having G.C. Smears should be carefully prepared by rolling the swab over the slide rather than rubbing it on. This distributes the pus cells into layers, permitting accurate observation of intracellular organisms. DO NOT add fixation to smears for gram stain.

Urethral Discharge for Trichomonas

The specimen collected must not be allowed to dry out and it must be brought to the laboratory without delay for microscopic examination. The specimen should be placed in a small tube to which saline has been added to keep the specimen from drying. Trichomonas is easily diagnosed by its rapid motility and characteristic morphology by looking at a wet prep under the microscope. If the specimen for examination is not examined immediately or allowed to dry out, the Trichomonas will die and cannot be distinguished from WBC.

Genitourinary Specimen for Neisseria Gonorrhoea Swabs Coming from Outside Facility or any Other Source which Results in a Delay in Receiving the Specimen

Female: Cervix-moisten speculum with water, insert swab into cervical canal, inoculate immediately to a warm Thayer-Martin plate.

1. Insert plate into bio-bag with CO₂ gas generator.
2. Properly seal bio-bag.
3. Hold bio-bag so that CO₂ generator remains upright. Crush lower portion of ampoule by squeezing firmly. Flick lower portion of generator gently with finger to initiate reaction (indicated by bubbling).
4. Transport to lab as soon as possible.

Female In-Patients or ER Patients for Neisseria Gonorrhoea

Collect same as above and bring culturette to lab for inoculation to proper media.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

VIRAL AND RICKETTSIAL SPECIMENS

A. How to Submit Specimens for Viral and Rickettsial Studies

1. Blood – Paired sera must be submitted to State Health Department. Acute phase – within 5 to 7 days after onset of illness. Convalescent phase 10 to 14 days following acute specimen. Serum must be clean, uncontaminated and without preservative. Hemolyzed sera are unsatisfactory for testing.

A four-fold rise in antibody titer between the acute and convalescent serum specimens determines the cause of illness. It is important that about two weeks time elapse between the two specimens allowing sufficient time for the antibody titer to rise. Paired sera without a sufficient time interval are useless, and tests will not be run due to prohibitive costs.

If serum samples cannot be prepared, whole blood specimens may be submitted. Whole blood must not be frozen, as hemolysis will occur on thawing.

2. Throat washings – Throat washings should be made with sterile distilled water or phosphate buffered saline. Three or four washings from the patient may be pooled in a sterile screw-cap tube or bottle sealed tightly. The specimen must be frozen in dry ice and shipped with enough dry ice to last the trip. Do not add a preservative.
3. Throat swabs – Swabs may be immersed in a sterile distilled water or phosphate buffered saline in a screw-cap tube and sealed tightly. The specimen must be frozen.
4. Spinal fluid – At least 5 cc. of spinal fluid should be shipped in a sterile screw-cap tube, frozen with dry ice and shipped in dry ice.
5. Stools – Feces should be submitted in double containers. The specimen must be frozen.
6. Rectal swabs – Swabs may be submitted in screw-cap tubes containing sterile distilled water of phosphate buffered saline. The specimen must be frozen.
7. Vesicle fluid of pustule crusts – Vesicle fluid may be submitted in a capillary tube and shipped frozen. Pustule crusts may be shipped in a sterile screw-cap tube.

All specimens with the EXCEPTION of blood must be frozen in dry ice and shipped with enough dry ice to last the trip.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

SURGICAL PATHOLOGY

- A. Surgical specimen request forms should be filled in as completely as possible. The patient's name and hospital number should be affixed using a patient label. If the patient label is not available, fill in identifying data as completely as possible. The physician's name, source (floor number, out-patient, etc.) and type of tissue should be clearly indicated. Pertinent clinical information should be included.
- B. Small specimens, with the exception of biopsies requiring special studies (see below) should be placed directly into 10% formalin. Specimen bottles with fixative are available in the histology lab. DO NOT use other fixatives unless special arrangements have been made with the pathologist.
- C. Biopsies, which require special studies, (for example: lymph nodes, tissue for culture, imprints, tissue analysis, etc.) require special handling. Please notify the surgical pathology laboratory (extension 1553), prior to the performance of the biopsy so that personnel may be available to process the specimen properly.
Compliance with these directions will result in a greater percentage of specimens upon which a definite diagnosis is possible.
- D. Specimens removed in the operating room are picked up at intervals each afternoon until 3:00 p.m. Specimens of special interest after 3:00 p.m. should be brought directly to the tissue-processing laboratory and to the attention of the pathologist.
- E. Specimens removed in the emergency room or from an outpatient should be brought to the tissue-processing laboratory with the surgical specimen request form filled in as indicated under #1. Most specimens received prior to 3:00 p.m. will be processed on the day of arrival. Specimens received after 3:00 p.m. will be delayed 24 hours, except as indicated in #4.
- F. All human tissue removed in the hospital is to be processed by the pathology laboratory. If other departments desire tissue for other purposes, approval of the attending pathologist must be obtained and tissue may be removed from the specimen only under his supervisor.
- G. Upon request, same day results on a small biopsy etc. (needle biopsies) may be obtained if specimen is submitted to histology lab by 12:00 noon.

AUTOPSIES

- A. General
Autopsy consent forms, VV-1035, have been printed and distributed. The form is self-explanatory. However, one item deserves special mention. In the center of the sheet the blank space is present regarding limitations of the autopsy. This must be completed on each form. Also, three originals need to be completed.
- B. Inpatients
When permission for an autopsy has been obtained, the pathologist should be notified. It will be decided at that time whether arterial embalming will precede the autopsy. The chart would be placed in the Histology department.
- C. Outpatient deaths (DOA's, suicides, homicides, etc.) are handled by the county/state coroner.
- D. HANDLING OF DECEASED INFANTS – Each fetus or stillborn weighing greater than 500 grams or 20 weeks gestation must be treated as an adult death.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

CYTOLOGY

COLLECTION INSTRUCTIONS FOR THINPREP PAP TEST

Endocervical Brush/Spatula Protocol

1. Obtain an adequate sampling from the ectocervix using a plastic spatula.
2. Rinse the spatula as quickly as possible into the PreservCyt® Solution vial by swirling the spatula vigorously in the vial 10 times. Discard the spatula.
3. Obtain an adequate sampling from the endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottom-most fibers are exposed. Slowly rotate ¼ or ½ turn in one direction. **DO NOT OVER-ROTATE.**
4. Rinse the brush as quickly as possible in the PreservCyt Solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. Swirl the brush vigorously to further release material. Discard the brush.
5. Tighten the cap so that the torque line on the cap passes the torque line on the vial.
6. Record the patient's name and ID number on the vial. Record the patient information and medical history on the cytology requisition form.
7. Place the vial and requisition in a specimen bag for transport to SOPA laboratory for processing.

INSTRUCTIONS FOR CYTOLOGY SMEARS

- A. Collection and handling of smear:
 1. Smears for cytology are prepared in the usual manner.
 2. Write the patients name or chart number on the frosted end of the slide with a #2 lead pencil, not a felt tip marker or ballpoint pen.
 3. Immediately spray slide with cytology fixative by holding container 12 inches from slide and spraying lightly, but thoroughly.
 4. Complete cytopathology request form.
 5. Spray again lightly.
 6. Bring the slides and request form to pathology lab.
 7. The name or chart number that you write on the slide must match the corresponding requisition sent with it.
- B. Quality of the Smear
 1. **SATISFACTORY** – meets all criteria as a satisfactory smear (i.e., adequate cellularity, no obscuring inflammation or blood, has endocervical cells present, etc...)
 2. **LTO** – less than optimum-slide does not meet the criteria for a satisfactory smear (see further definitions below)
 3. **UNSATISFACTORY** – slide cannot be evaluated (see further definition below)
Inflammation is rated as to mild, moderate, or severe hormonal reading is given as consistent or inconsistent with age and history note: maturational indexes are not given unless specifically ordered. A letter is sent to the requesting physician explaining that the M.I.'s are not of much value on a one time slide and must be taken for a weekly period for 1 month to evaluate that individuals inflammation, or blood, no overlapping of cells, etc. A separate charge is made on specimens that have M.I. requested.
A separate requisition is to be used for non-gynecological specimens. (See below). Only the presence of endocervical cells will be accepted as representing endocervical cell component.
- C. Definitions of Unsatisfactory and Less than Optimal PAP Smears
Unsatisfactory:
 1. Slide is too hypocellular-very few cells present.
 2. Slide is obscured by severe inflammation-majority of the slide cannot be visualized due to the inflammation.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

3. Slide is obscured by other substances-majority of slide cannot be visualized due to blood.
4. Slide is obscured by other substances-majority of slide is obscured by lubricating jelly, bacteria, sperm, etc...
5. Slide is too thick-cells cannot be visualized due to the thickness of the specimen.
6. Slide is air-dried-majority of the slide is air-dried distorting true cytological picture.
7. Staining is too poor to allow proper diagnosis of slide.

Less than Optimum:

1. Slide does not contain endocervical cell component on patient who has a cervix.
 2. Slide has severe inflammation with some areas still able to be visualized and contains area of endocervical cell component.
 3. Slide has a lot of blood but areas of the slide can still be visualized and contains areas of endocervical cell component.
 4. Slide has other obscuring substance present but areas can still be visualized and contain endocervical cell component.
 5. Slide is scanty but contains areas of endocervical cell component.
 6. Slide is air-dried but contains areas that are well preserved and endocervical cell component.
 7. Requisition does not contain adequate information for proper evaluation, however, slide is well done and contains areas of endocervical cell component.
 8. Slide contains a dysplasia but otherwise would meet criteria for unsatisfactory slide.
 9. Slide contains a malignancy, but otherwise would meet the criteria for unsatisfactory slide.
 10. Slide is heavily infested with organisms that affect the true cytological diagnosis.
- D. Reporting of findings
The following are the terms are used on the cytology report:
PAP class system and descriptive:
LGSIL – low grade squamous intraepithelial lesion, class II, mild dysplasia
HGSIL – high grade squamous intraepithelial lesion, class II + -III, moderate or severe dysplasia
OTHER – encompasses mild epithelial atypias, CIS, and all malignancies, class IV
WNL – within normal limits, class I, negative
ADDITIONAL COMMENTS - this is for any other observations to be pertinent to the welfare of the patient (i.e.: infections, organisms, viral infections, etc...)
- E. All slides that are received broken are so noted on the requisition and final report. An attempt is made to diagnose if the slide is not beyond mending. It is up to the clinician to decide whether that PAP needs to be repeated due to the breakage.

If identifying information on the slide does not match that on the requisition, the slide will not be processed. They will be returned to the physician with the reason for the return stated on the report. Slides that are received with incomplete information will be processed as long as the names and/or identifying numbers match their requisition. However, the incomplete information areas will be circled in red to alert the physician to the incomplete information.

BODY FLUIDS

A. Non-gynecological Specimens

All fluid specimens are to be collected and immediately have an equal volume of 50% fixative added to it. Fluids that cannot be taken directly to the laboratory after collection are to be placed in the refrigerator on the floor until they can be transported. For optimum results, fluids should be taken to the laboratory immediately. A requisition must accompany the specimen with the patient's name, age, birth date, sex, physician, who ordered the test, type of specimen, location of body site, pertinent clinical history. Fluids will be transported to SOPA cytology lab the same day as collection. Reports will be sent to the pathologist the day after they are received in the SOPA laboratory with the report going to the floor that same day.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

If a cellblock is made on the specimen, there will be an additional 24 hours delay for processing of the cellblock. All fluids must be placed in a sealed biohazard bag with requisition attached to the outside for transport. All known infectious specimens must be so labeled before transport.

B. Fine Needle Aspirations

A 22-gauge needle attached to a 10-20 ml. syringe can be used to aspirate the fluid contained in a localized mass. Hold the mass firmly in one hand and aspirate holding a negative pressure on the syringe moving the needle within the mass without withdrawing the needle completely. Immediately place aspirate on a slide and spread with immediate fixation by dropping into 95% ETOH or by spray fixing. (If cytotechnologist is in attendance, the slides should be smeared with a final rinsing of the needle in saline, if performed by the physician alone, then the aspirate should be placed in 50% ETOH for transport to the laboratory). Upon receipt of the specimen in the laboratory, the aspirate in the saline or 50% should be placed in a 50 ml. centrifuge tube and centrifuged at 2400 RPM for 10 minutes. After centrifugation, the supernatant is poured off and the remaining button is re-suspended and 2 smeared direct slides are made on all fine needle aspirates. Place equal amounts of agar (melted) into the cell button and re-centrifuge for 10 minutes at 2400 RPM. Upon completion of centrifuging, remove the cell button suspended in agar, place in a tissue cassette and place in 10% formalin for processing by histology. Standard LCL modified PAP stain shall be used with 1 slide Dif Quik Stained.

C. Deep Aspirations

These are aspirations of deep organs that must be done under CAT scan or fluoroscopy. The cytotechnologist should be in attendance at all of these procedures. Follow the above procedure making as many direct smears on site as possible. All pertinent patient history should be on the requisition. Location of mass, size of mass, previous history, current therapy, etc. age, sex, and physician of the patient (this applies to all cytologies). Standard LCL modified PAP staining procedure shall be used with 1 slide Dif Quik Stained.

RESPIRATORY TRACT

SPUTUM

The proper collection and preparation of material from the lungs are of utmost importance if the results of the preparation are to be meaningful. Standard methods include:

1. Natural Cough Methods

To obtain satisfactory "deep cough" sputum by natural means, the patient is instructed to inhale air to the full capacity of the lungs (to breathe as deeply as possible) and to exhale air with an expulsive cough. Sputum is collected in special sputum collection containers containing 20-30 cc. of 50% reagent alcohol. The alcohol solution serves as a preservative and pre-fixative and makes for convenience in handling and transporting.

The patient is instructed by his physician to deposit in the bottle only these secretions coughed up from the bronchial tree in contrast to saliva, which accumulates in the mouth or postnasal accumulation in the pharynx. The best time for collecting sputum is early in the morning just after waking. Forceful vigorous coughing at this time is often very productive. It is important that the patient rid his mouth of saliva and other material by spitting or rinsing his mouth with water before attempting to bring up sputum. For patients with scanty sputum, it may take 15-30 minutes of intermittent coughing before an adequate sample can be obtained. For those who experience difficulty, sputum coughed up at any time of day may be used. The patient is encouraged to keep the container in a convenient place to aid in this collection.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

2. Aerosol Technique

In selected cases where little or no sputum can be produced, an induced specimen is obtained by use of heated aerosol. The aerosol solution consists of 15% saline and 20% propylene glycol heated to 145-1500° F. A weaker solution is used for patients with known respiratory problems, such as emphysema or asthma. A trained technician is in attendance throughout the procedure to insure proper and effective administration of the medication. The patient is instructed to breathe through the mouthpiece for 2-3 minutes, then discontinue and attempt a deep cough. Repeat cough attempt two or three times. Repeat the breathing-coughing routine at regular intervals over a period of 10-15 minutes depending on the amount and quality of the sample obtained.

Patients who fail to produce sputum after 20 minutes are dismissed and rescheduled if a second attempt is to be made. Following induction, patients are given the special sputum collection kit containing 20-30 cc. of 50% reagent alcohol as fixative in which deposit specimens, which may be coughed up through the remainder of the day and the following morning. The resulting specimen is not always as satisfactory as sputum produced by natural means.

A total of three sputum specimens collected on three consecutive mornings upon arising provide the best material for cytologic evaluation. Please DO NOT collect a 24-hour specimen as these are inadequate due to cell disintegration.

BRONCHOSCOPY

Material for the cytologic examination of the lungs may be obtained at the time of bronchoscopy. With the development of the flexible fiber optic bronchoscope, the bronchoscopist is able to visualize and brush previously inaccessible portions of the bronchial tree thus providing a valuable additional tool in the cytologic diagnosis of bronchogenic carcinomas.

While the bronchoscopic tube is in the bronchus, 5-10 mL of saline solution may be instilled into the involved portion of the lung, the material is then aspirated into a U-shaped tube. After aspiration, an equal volume of the 50% reagent alcohol is added to the tube. Send properly labeled specimen to lab with completed requisition.

OBTAINING CELL SAMPLE FROM BREAST

Immediate fixation is of basic importance; mammary cells spread on a glass slide in a single layer rapidly undergo drying degeneration. Serous or blood material making up part of virtually all pathological nipple secretions does not protect them. Never partially dry the specimen. Spray-fix immediately, or have the patient hold a small coplen jar containing 95% alcohol under the nipple and place the smeared slide immediately. Cellular material is much better.

Preserved by having trained personnel holding the spray-fixative to use as soon as slide is made rather than having it setting on a near-by counter or air drying the smear causing cellular degeneration.

Frosted (Dakin) slides are best for cell retention. No albumin or other material is needed to coat the slides as the sufficiently high protein in nipple secretion results in adherence. The area of secretion storage is the larger excretory ducts with their ampullae, located in and immediately below the nipple and the areolar area. The breast is not massaged. This sub-areolar area is all that is gently stripped of secretions. A breast pump may be used. When a small drop of secretion appears at the nipple, smear and immediately fix in alcohol or by spray. Repeat as long as secretion is obtained because the last drops frequently yield the best-preserved and most diagnostic cells.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Minimum Amounts are Whole Blood Amounts. * indicates sent to Reference Lab,

Lab Test	Purple	Red	Blue	Green	Other	Min. Amt.	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparations	Turn Around Time
ABO Blood Grouping	X	X			X pink	2ml						2 HR
Acetone, Blood		X				2ml						2 HR
Acetaminophen				X		2ml						2 HR
Acid Phosphatase		X				3ml						*
Acute Hepatitis Profile		X				5ml						4 DA
Alcohol Blood (Ethanol)		X				3ml		Use beta-dine. See pg. 20				2 HR
Alkaline Phosphatase				X		3ml						2 HR
Alpha-Feto Protein		X				3ml						*
Amylase (Serum)				X		3ml						2 HR
Amylase (Urine)								Urine, See Pg. 21				2 HR
Antibody ID	X	X			X pink	5ml						24 HR
Antibody Screen		X			X pink	4ml						4 HR
Antistreptolysin		X				3ml						*
ANA-Anti Nuclear AB		X				3ml						1 WK
Ammonia				X		3ml		Transport in ice See pg. 19				2 HR
Anemia Profile	X	X		X		4ml						24 HR
B-Natriuretic Protein	X					1ml						1.5 HR
Blood Gases-Arterial					X			Coll'd By Resp Therapy				1 HR

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Lab Test	Purple	Red	Blue	Green	Other	Min. Amount	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparations	Turn Around Time
Bilirubin, Direct				X		3ml		Protect from Light				2 HR
Bilirubin, Total				X		3ml		Protect from Light				2 HR
Brucella		X				4ml						*
BUN				X		3ml						2 HR
B-12 Vitamin		X				3ml		Protect from Light				*
Calcium				X		3ml						2 HR
Carbon Dioxide (CO ₂)				X			3ml					2 HR
Cardiac Profile				X		4ml				Per Dr.		2 HR
CEA		X				3ml						2 HR
CSF Cell Ct. Protein, Gluc.					X			Deliver to Lab ASAP				2 HR
Chlamydia					X			Swab, See pg. 27				*
Chem 8 (BMP)				X		3ml						2 HR
Chloride				X		3ml						2 HR
Cholesterol				X		3ml						2 HR
Clostridium difficile					X	1gm		Stool				24 HR
Clot Retraction		X				5ml						2 HR
C3—C4		X				5ml						*
CBC	X					3ml			X			1 HR
Cortisol		X				4ml		See pg. 19				*
Coagulation Profile	X	X	X			3ml						24 HR
Cold Agglutin	X					3ml						*

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Lab Test	Purple	Red	Blue	Green	Other	Min. Amount	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparations	Turn Around Time
Creatinine Clearance (GFR)				X		3ml*		*Plus 24 hr urine. See pg.21				2 HR
CRP				X		3ml						2 HR
Crossmatch	X	X			X pink	5ml		See pages 13-15				4 HR
Culture, AFB (all sources)					X			See pg. 28				*4 WKS
Culture Anaerobic					X			See pg. 33				72 HR min.
Culture Blood					X	6ml		Collected by Lab. See pg. 34				72 HR min
Culture CSF					X			See pg. 26				72 HR min
Culture Exudate					X			See pg.26				72 HR min
Culture for GC Genito/Urinary					X			Swab See pg. 26				72 HR min
Culture Mycology (all sources)					X			See pg. 27				*8 WKS
Culture Naso/Pharyngeal (Staph)					X			N/P Swab See pg. 26				48 HR min
Culture Sputum					X	1ml		Coll'd by RT See pg. 26				72 HR min
Culture Stool					X	trace		See pg. 26				48 HR min
Culture Throat					X			Swab See pg. 26				48 HR min
Culture Urine					X	1ml		See pg. 26				24 HR min
Culture Vaginal/Rectal (Beta Strep)					X			Swab See pg. 26				48 HR min
Culture Viral								Call Lab				*
Culture Wound					X			See pg. 26				48 HR min
Depakene/ Valproic				X		3ml						2 HR

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Lab Test	Purple	Red	Blue	Green	Other	Min. Amount	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparations	Turn Around Time
Digoxin				X		3ml						2 HR
Direct Bilirubin				X		3ml		Protect from Light				2 HR
Direct Coombs	X					3ml						2 HR
Drug Screen					X	3ml		Urine See pg. 21				2 HR
D-dimer			X			3ml						3 HR
Ferritin		X				3ml						*
Folate		X				3ml						*
Fetal Cell Screen	X	X				3ml		See pg. 18				4 HR
Free T4				X		3ml						2 HR
Gentamicin				X		3ml		See pg. 19				2 HR
GGTP				X		3ml						2 HR
Glucose				X		3ml						1 HR
Glucose Tolerance				X		3ml	X	See pg. 19				6 HR
Glycosylated Hgb	X					1ml						2 HR

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Lab Test	Purple	Red	Blue	Green	Other	Min. Amount	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparations	Turn Around Time
Gram Stain					X			See pg. 37				1 DA
HDL Cholesterol				X		3ml						2 HR
HDL/Total Cholesterol				X		3ml						2 HR
Haptoglobin		X				3ml						*
Hemoglobin	X					1ml						1 HR
Hemoglobin Electrophoresis	X					5ml						*
Hepatic F'n Panel				X		3ml						2 HR
Heterophil (Mono)		X				3ml						2 HR
Hepatitis B Surface AG		X				3ml						4 DAY
Hepatitis B surface AB		X				3ml						4 DAY
Hepatitis B Core		X				3ml						4 DAY
Hepatitis A Virus IgM Ab		X				3ml						4 DAY
Hepatitis A Screen		X				3ml						4 DAY
Hepatitis Profile		X				5ml						4 DAY
HIV Antibody		X				3ml						4 DAY
H. pylori		X										M-F 24HR
H. pylori IGA		X										*
IgG, IgA, IgM		X				5ml						*
Insulin		X				5ml						*
Iron BindingCap.		X				4ml						*

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Lab Test	Purple	Red	Blue	Green	Other	Min. Amount	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparations	Turn Around Time
Iron				X		3ml						2 HR
Indirect Coombs		X				4ml						4 HR
K Potassium				X		3ml						2 HR
LDH				X		3ml						2 HR
LDH Isoenzymes		X				5ml						*
Lactic Acid					X	5ml		See page 19				*
Lipase				X		3ml						2 HR
Lipid Profile				X		3ml		See page 20				2 HR
Lithium				X		3ml						1 DAY
Lymes AB		X				3ml						4 DAY
Magnesium				X		3ml						2 HR
Metabolic Panel (CMP)				X		3ml						2 HR
Na Sodium				X		3ml						2 HR
PTT			X			3ml						1 HR
Pro Time			X			3ml						1 HR
Phosphorus				X		3ml						2 HR
Platelet Count	X					3ml						1 HR
Potassium (K)				X		3ml						2 HR
Protein, Total Serum				X		3ml						2 HR
Protein 24 HR Urine					X			24 Hr Urine See pg. 21				2 HR

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Lab Test	Purple	Red	Blue	Green	Other	Min. amount	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparation	Turn Around Time
Proteus OX-19						3ml						*
Pre-Albumin		X				3ml						3 HR
Osmolality Serum		X				3ml						2 HR
Osmolality Urine					X	2ml		Urine See pg. 21				3 HR
Protein Electro. Serum		X				3ml						*
Protein Electro. Urine					X			24 Hr Urine. See pg. 21				*
RA Test		X				3ml						1 DAY
RBC Red Cell Ct.	X					2ml						1 HR
Reticulocyte Count	X					2ml						2 HR
Rh Typing (D)	X					2ml						2 HR
Rhogam	X					2ml	X					4 HR
RPR		X				2ml						3 DAY
Rocky Mt. Spotted Fever		X				3ml						*
RSV N/P Swab								N/P Swab				4 HR
Rubella		X				2ml						4 DAY
Salicylates				X		2ml						2 HR
Sed Rate	X					2ml						2 HR
SGOT/AST				X		3ml						2 HR
SGPT/ALT				X		3ml						2 HR
Sickle Cell Test		X				3ml						2 HR
Stool O&P						5gm		Stool Container				4 HR
Stool Occult Blood						1gm		Stool Container				1 HR
Stool Rotavirus						1gm		Stool Container				2 HR
T Uptake		X				3ml						*

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Lab Test	Purple	Red	Blue	Green	Other	Min. Amount	Fasting Specimen	Special Handling	Slides Required Blood Smears	Special Timing	Patient Preparation	Turn Around Time
Total T4				X		3ml						*
Triglyceride				X		3ml	X					2 HR
TSH				X		3ml						2 HR
Tularemia						3ml						*
Type and Screen	X	X			X pink	3ml		See page 18				4 HR
Uric Acid				X		3ml						2 HR
Vancomycin				X		3ml		See pg. 19				2 HR
WBC	X					1ml						1 HR

Minimum amounts are Whole Blood Volumes, * indicates "Sent to Reference Lab"

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

BLOOD COLLECTION GUIDELINES

It is VVRH Lab policy to limit the amount of blood drawn for laboratory tests to minimize risk of unnecessary blood loss to patients.

Location	Extra Tubes to Draw	Reason
ER	Red, Lav, Blue, Green	Orders often added.
Endoscopy	Red	H. Pylori often added after endoscopy.
In Patient Timed Draw	Draw only what is ordered.	
In Patient New Admit	Red, Lav, Blue, Green	Orders often added.
Labor & Delivery	Pink, Lav	XM or T&S often added.
OB Post Partum	Draw only what is ordered.	
ODSC	Draw only what is ordered.	
Oncology	Red, Lav	Other tests often added
Out Patient	Draw only what is ordered.	
Radiation Therapy	Draw only what is ordered.	
Recovery	Lav	Hematology may be added
Infant and Toddler	Draw only what is ordered.	Minimize risk of excessive blood loss.
Elderly, frail patients	Draw only what is ordered.	Minimize risk of excessive blood loss.

COLLECTION TUBE HANDLING INSTRUCTIONS:

Stopper Color:

Lavender
Lt Blue
Green
Dk. Blue with Additive
Pink
Gray
Red/Red+Gray
Dk. Blue, no Additive

Handling after collection:

Gently Invert 5-8 times **immediately**, before laying tube down
Gently Invert 5-8 times **immediately**, before laying tube down
Gently Invert 5-8 times **immediately**, before laying tube down
Gently Invert 5-8 times **immediately**, before laying tube down
Gently Invert 5-8 times **immediately**, before laying tube down
Gently Invert 5-8 times **immediately**, before placing in cup of ice
Do not invert.
Do not invert.

All others, call the lab for information

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

TRANSPORTATION OF SPECIMENS

Policy: It is the policy of VVRH that all specimens brought to this facility and those transported out are handled in the appropriate manner. Adherence to regulations for transport of biohazards is required.

Specimens Transported to Lab: Note that VVRH laboratory does not employ the services of a courier. Samples delivered to the lab are delivered by agents of nursing homes, home health care agencies and physicians' offices. Some samples are delivered by Southern Oklahoma Pathology courier as a courtesy to local physician's offices.

Procedure:

1. Persons bringing specimens to VVRH lab must:
 - a. be equipped with the proper storage and transport containers to accommodate the sample
 - b. be equipped with personal protective equipment to use in the event of a spill or breakage
 - c. be equipped with clean-up equipment to use in the event of a spill or breakage
 - d. remain at the lab until it can be determined that:
 - i. the sample is adequate
 - ii. the sample is properly labeled
 - iii. the requisition matched the sample label
 - iv. the diagnostic information is present
2. All specimens brought to VVRH lab from outside sources must be:
 - a. labeled with the patient's name, date of collection and type of specimen, if not whole blood, i.e. plasma, serum, urine, body fluid.
 - b. inserted in a zip lock plastic Bio-hazard bag
 - c. transported in a rigid container maintained at the proper temperature and light conditions for the samples enclosed.
 - i. unless indicated otherwise in the "Special Handling" column in the chart on pages 44-51 samples should be transported at room temperature protected from light
 - d. accompanied by a requisition signed by a physician
 - e. specimens that not properly labeled, have leaked into the bag or are broken will not be accepted.
3. At the time the samples are delivered to the lab, a phlebotomist or technologist will:
 - a. check for the presence of name and date of collection
 - b. check for the presence of a requisition
 - c. determine if name on sample matches the name on requisition
 - i. If name is not present or does not match requisition the sample will be held under appropriate conditions until the submitting agency positively identifies IN PERSON the identity of the sample
 - d. determine the adequacy of the sample
 - i. If inadequate, the person submitting the sample will be informed.
 - e. check requisition for presence of diagnosis.
 - f. If diagnosis is not present the person submitting the sample will obtain the needed information before leaving the lab
4. Southern Oklahoma Pathology Associates courier
 - a. has been instructed in Blood Borne Pathogens
 - b. transports samples in a container protected from light or excessive heat
 - c. does not deliver samples with special handling requirements, such as frozen or immediate delivery to the lab following collection.
5. Any samples delivered to the lab by the outside agent or courier, received in an unacceptable state, lacking proper identification and/or requisition, are not tested. The submitting provider is informed that a new sample is required.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Specimens Sent to Reference Laboratories: Specimens referred to outside laboratories are packaged and shipped following applicable federal, state and local regulations. All liquid specimens sent through delivery services such as US Postal Department, FedEx, etc. are placed in unbreakable containers, in foam containers containing absorbent pads, put in a plastic bio-hazard bag and then a second self-sealing approved bag for shipping.

1. All specimens sent to DLO will be labeled and packaged using DLO labels and packaging.
 - a. DLO couriers will pick up samples and place in the appropriate container (room temp, 2-8 degrees, or frozen) for transport to DLO.
 - b. DLO couriers are trained in handling materials capable of transmitting Blood Borne Pathogens.
2. All specimens sent to OBI will be properly labeled with patients name, date of birth and, if not whole blood, sample type, i.e. serum, plasma, urine, body fluid.
 - a. Samples are placed/collected in unbreakable collection or aliquot tubes.
 - b. Tubes are placed in Biohazard bags.
 - c. Biohazard bags are picked up by the OBI courier and placed in a cooler, then delivered to the OBI laboratory.
 - d. OBI couriers are trained in handling materials capable of transmitting Blood Borne Pathogens.
3. All samples sent to OMRF for testing are labeled with patient's name and date of birth.
 - a. Samples are placed/collected in unbreakable collection or aliquot tubes.
 - b. Tubes are placed in the foam containers along with absorbent pad. Container is sealed in a biohazard bag. The bag is placed in the box provided then placed in a self-sealing biohazard-shipping bag and mailed to OMRF. Packaging is provided by OMRF.
4. All blocks and slides sent to outside labs for testing or consult are shipped in padded envelopes.

**Valley View Regional Hospital
Laboratory
Specimen Collection and Handling Manual**

Bio Terror or Chemical Terror Event:

Microbiology Technologists have been trained and are re-certified to handle and ship samples arising from a suspected Bio-Terrorism even. Technologists and Phlebotomists have been trained to handle and ship specimens arising from a suspected Chemical Terror event. See attached list of those certified as of March 2008.

Medical Director

Laboratory Department Director

Reviewed by/Date:

_____	_____
_____	_____
_____	_____
_____	_____

ADDENDUM

The Microbiology Supervisor and the Assistant Laboratory Director will be certified annually in the requirements of certification in the Shipping and Packaging of Infectious Substances and Diagnostic Specimens from a suspected Bio-Terrorism or Chemical Terrorism event.

Signature _____ Date _____