

**SARATOGA HOSPITAL  
DEPARTMENT OF LABORATORY MEDICINE**

**LABORATORY SERVICE DIRECTORY  
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## LABORATORY SERVICE DIRECTORY USE OF THE DIRECTORY

The purpose of this directory is to provide information on the diagnostic services offered by the Saratoga Hospital Laboratory and its satellite facilities. The information presented is intended to serve as a resource for test selection, requisition and specimen requirements. The optimal use of our diagnostic resources is best achieved through the use of this manual and direct communication with our professional staff.

The “**Scope of Service**” section describes the services which are provided by each laboratory department, including hours of operation.

The “**Client Services**” section provides information on the support services, billing information and laboratory reports.

The “**Specimen Collection and Transport**” section provides basic instructions for collecting specimens.

A **Specimen Reference Guide** is available at the hospital website at the address below. It provides general instructions about requisitions, specimen types, containers, equipment and techniques for specimen collection.

A **List of Laboratory Tests** is also available at the hospital website at the address below. It provides searchable table of all tests arranged in alphabetical order according to their most common name. In addition, some tests are also listed by their most commonly known synonyms. Test order name, lab department, collection container, storage for transport, CPT, test methodology and other information are provided

The **Service Directory**, **Specimen Reference Guide** and **List of Laboratory Tests** are updated on a periodic basis. They are available on the hospital website at the following URL:

<http://saratogahospital.org/services/diagnostictesting/laboratory-services/>

Contact the laboratory for assistance with the medical indication and appropriate selection of laboratory tests.

### DEPARTMENT OF ANATOMIC AND CLINICAL PATHOLOGY

LABORATORY/SERVICE	PHONE NUMBER	NAME
<b>Administration</b>		
Laboratory Medical Director Saratoga Hospital Laboratory	518-583-8442 (cell)	Janne Rand, M.D. (Medical Director)
Assistant Laboratory Medical Director Saratoga Hospital Laboratory	914-224-1327 (cell)	Karl Robstad, M. D. Transfusion Medicine
Laboratory Medical Director Saratoga Hematology-Oncology	518-583-8442	Kelly-Ann Kim, M.D
Laboratory Medical Director Wilton Medical Arts	518-583-8442	Todd Duthaler, D.O.
Pathologist(s)	518-583-8442 or 583-8445	Kelly-Ann Kim, M.D. Janne Rand, M.D. Katherine Pinheiro, M.D.
Laboratory Administration, Director	518-583-8443	Richard Vandell, Administrative Director Laboratory Services
Laboratory Administration, Associate Director	518-583-8755	Donald Dennison, Associate Director Laboratory Services
Anatomic Pathology/Office of Decedent Affairs	518-583-8442	Jennifer Kish, Clinical Director, Anatomical Pathology/Coordinator of Decedent Affairs,

Business Manager,	518-583-8743	Shayna Blanchette, Business Manager, Laboratory Service
Quality Assurance/Compliance	518-580-2594	Darcy Leanza, Quality/Compliance Coordinator
Evening/Night	518-583-8750	Gregorio Anicete, Supervisor
Laboratory Administrative Support	518-583-8445	Julie Joly, Administrative Coordinator of Pathology
<b>Pathology (Histology/Cytology)</b>		
Pathology	518-583-8442 or 583-8445 518-580-2661 (fax) 518-580-2581 518-583-8752	Transcriptionist/Secretary  Histology Laboratory Jennifer Kish, Clinical Director, Anatomic Pathology Brian Girard, Histology Supervisor
<b>Clinical Laboratory</b>		
Blood Gas	518-580-2554	Chris Torino, Administrative Director
Blood Bank	518-583-8458 518-583-5945	Blood Bank Laboratory Julie Whaley, Supervisor, Blood Bank
Chemistry	518-583-8747 518-583-8755	Katie VanAlstyne, Supervisor, Dayshift
Hematology	518-583-8750 518-583-8755	Don Dennison,, Associate Director, Laboratory Services
Microbiology/Virology	518-583-8751 518-583-8755	Don Dennison, Associate Director, Laboratory Services
Phlebotomy	518-886-5545 518-580-2419  518-583-8748 518-580-2497 (Fax)	Avis Clarke, Lab Support Manager Margaret Cook, Lab Support Supervisor, Hospital and Outreach Central Receiving/Processing Central Receiving/Processing
POCT, Specimen Processing, Reference Labs, COVID19 Op	518-583-8735	Shayna Blanchette, Buisness Manager, Laboratory Service
<b>Client Response</b>		
Client Support Services	518-583-8440 & 583-8741 518-580-2419 518-580-2615 518-580-2542 518-580-2806 (fax)	General Information Lab Support Coordinator Laboratory Registration Laboratory Scheduling Client Support Services
<b>Off-site Facilities</b>		
<i>Satellite Laboratories</i>		
Saratoga Hematology-Oncology Laboratory	518-886-5433	Karin Loffredo, Manager Off-site Laboratories
Wilton Medical Arts (WMA)	518-580-2292 518-580-2144 518-580-2108 (fax)	Avis Clarke, Lab Support Manager Adriane Wright, Lab Support Supervisor, Off Sites
<i>Patient Service Centers</i>		
UC Adirondack Patient Service Center Saratoga Family Health Schuylerville Family Health Milton Health Center	518-223-0155 518-886-5434 518-695-3668 518-289-2725	Avis Clarke, Laboratory Support Services Manager Adriane Wright, Lab Support Supervisor, Off Sites

## SCOPE OF SERVICE PLAN

The Anatomical and Clinical Pathology Departments at Saratoga Hospital provide the highest quality of anatomical and clinical laboratory services to support and enhance the ability of the hospital and other health care providers to deliver superior care to our patients. The Hospital and Departmental Missions are the laboratory's purpose and guide. They underscore our determination to have beneficial impact on patients.

We provide services of the highest quality through innovative ideas while constantly improving, striving for and maintaining a high degree of skill. We seek to meet this goal in a work environment that values a sense of

community among all employees, an opportunity to perform meaningful work and a sense of dignity from the contributions they all make.

We are committed to service, education and development.

**SERVICE:** Providing Anatomic and Clinical cutting edge technology, performed in a timely and cost effective manner. Our goal is to exceed client/patient expectations while maintaining a cost competitive position. This process keeps a strong customer focus, involves staff, and uses data and team knowledge to improve decision making.

**EDUCATION:** To create a “learning organization” within the Anatomic and Clinical Pathology Laboratories, and to educate clinicians in optimal test utilization, and to provide assistance with interpretation of laboratory results.

**DEVELOPMENT:** To implement new procedures to expedite the diagnosis and treatment of patients.

The key to achieving these goals is constant communication among well trained laboratory staff and their customers. Strong medical direction, a quality-centered management strategy and advanced technology is vital to providing quality laboratory services.

Services are provided according to hospital and departmental policy and procedure and are in compliance with current established techniques. All services meet the regulatory requirements of the New York State Department of Health (NYSDOH), The Centers for Medicare & Medicaid Services (CMS), Clinical Laboratory Improvement Amendments (CLIA), the American Association of Blood Banks (AABB), the College of American Pathologists (CAP), and the Joint Commission (JC).

The Laboratory’s quality system is organized to monitor processes and operations for all laboratory sites through the performance of self-assessment audits, error management, and customer feedback.

The performance of the procedures involves highly skilled Board Certified Pathologists, New York State licensed Clinical Laboratory Technologists, Clinical Laboratory Technicians, Pathologists’ Assistants, Histotechnologists, and Cytotechnologists. Support staff includes Laboratory Support Specialists, Phlebotomists, Clerical and Medical Secretarial/Transcription Support.

Our major areas of service are:

- Surgical Pathology
- Cytology
- Blood Gases
- Blood Bank
- Chemistry/Special Chemistry
- Hematology/Coagulation
- Microbiology
- Molecular Diagnostics
- Phlebotomy
- Point-of-Care Testing (POCT)
- Therapeutic Drugs

All departmental services are provided under the administrative and clinical direction of the Administrative Director and/or Laboratory Medical Director. The Administrative Director manages and directs the daily

departmental operation in conjunction with the Managers and Supervisors to provide administrative coverage during off hours.

The Saratoga Hospital operates satellite laboratories at Wilton Medical Arts (WMA) and Saratoga Hematology-Oncology (SHOL). In addition to providing laboratory tests for the WMA facility's Urgent Care Center and Saratoga Family Physicians (SFP), the WMA laboratory provides specimen collection and routine testing for the outpatient community. Services performed at the SHOL site are limited to testing that supports the Hematology-Oncology Practice.

The laboratory monitors and supervises all waived and moderately-complex point-of-care testing. All laboratory tests performed within the hospital and its satellite laboratories for which a result is generated and which is used for the treatment of a patient comes under the laboratory DOH licenses and is controlled by the laboratory. All testing performed at satellite clinics, outside the hospital's main campus, is performed under each clinic's CLIA license.

## LABORATORY HOURS OF OPERATION /GENERAL INFORMATION

### **Main Campus: Saratoga Hospital**

Clinical Laboratory: Opened 24 hours a day; limited test menu on the night shift. Routine results for testing performed in house are available within 24 hours of specimen receipt. Exceptions are noted in the service directory. Hours for outpatient phlebotomy services are listed under “Phlebotomy Services”.

Pathology/Cytology: 7:00 AM - 4:00 PM, Monday- Friday; closed weekends and holidays.

### **Satellite Laboratories:**

Saratoga Hematology-Oncology Laboratory (SHOL)	Wilton Medical Arts (WMA)
Monday-Friday: 7:30 am-3:30 pm	Monday-Friday: 7 am to 9 pm Saturday: 9 am to 9 pm Sunday: 9 am to 5 pm

**NOTE: the following specimens are never collected at these laboratories:**

Laboratory	Specimen
SHOL	Cerebrospinal Fluid, Cryoglobulins, Glucose Tolerance Tests, Semen Analysis
WMA	Ammonia, Cerebrospinal Fluid, Cryoglobulins, Semen Analysis

*Please refer these patients to the Saratoga Hospital Lab as appointments are required ~ Please call ahead.*

**Waived tests performed at the WMA Limited Service Laboratory:**

CBC, CBC w/automated diff
Comprehensive Metabolic Panel
Fecal Occult Blood
MonoSpot
POC Creatinine
POC Glucose
POC INR
Rapid Influenza Antigen A & B
Rapid Strep A Antigen (throat)
Rapid SARS-CoV-2 Antigen
Urinalysis without microscopic
Urine Pregnancy Test, Qualitative
Urine Drug Screen, Qualitative

All other laboratory tests are transported to the Main Laboratory or the appropriate reference laboratory

## AREAS OF SERVICE

### PHLEBOTOMY SERVICES

Trained phlebotomists provide 24 hour coverage to inpatient areas of the hospital. Saratoga Hospital also operates several patient service centers for the convenience of our outpatient population:

<p><b>Saratoga Hospital Laboratory</b> 211 Church St. Saratoga Springs, NY 12866</p> <p>Phone: (518) 583-8440</p> <p>Hours: Mon - Fri : 7 am to 8 pm Sat: 7 am to 1 pm Sun: CLOSED</p>	<p><b>Wilton Medical Arts Limited Service Laboratory</b> 3040 Route 50N Saratoga Springs, NY 12866</p> <p>Phone: (518) 580-2273 or 580-CARE</p> <p>Hours: Mon-Fri: 7 am to 9 pm Sat: 9 am to 9 pm Sun 9 am to 5 pm</p>	<p><b>SHMG Milton Primary Care</b> 510 Geyser Road Ballston Spa, NY 12020</p> <p>Phone: (518) 298-2725</p> <p>Hours: Mon-Fri. 7 am to 3:00 pm Closed daily from 12:30-1:00 for lunch</p>
<p><b>SHMG Schuylerville Primary Care</b> 200 Broad Street Schuylerville, NY 12871</p> <p>Phone: (518) 695-3668</p> <p>Hours: Tues &amp; Thurs; 8:00 am to 12.00 pm</p>	<p><b>Saratoga Hospital Urgent Care – Adirondack</b> 959 Route 9, Queensbury, NY 12804</p> <p>Phone : (518) 223-0155</p> <p>Hours: Mon-Fri 9:00-5:00 Sun – Sat: Closed</p> <p>Closed daily from 1:00-1:30 for lunch</p>	

Homedraw service is available for patients who qualify. Accepted reasons for homedraws are:

- A patient is considered homebound if he/she is not physically able to travel the distance with assistance from the parking lot to the collection station.
- Post-surgical patients with restricted or limited activities.

Please call 518-580-2542 for additional information. A Homedraw Request Form AND the test requisition is required. **The homedraw will not be scheduled without the required written documentation.**

The program operates within a twelve mile radius of the Saratoga Hospital from Monday – Friday. Appointments are scheduled according to our pre-determined routes.

### POINT-OF-CARE TESTING

The Point-of-Care Testing (POCT) program monitors and supervises all laboratory testing performed outside the physical facilities of the clinical laboratory. This includes testing done by hospital employees and medical staff. The program provides guidelines to ensure consistent, accurate and reliable laboratory testing at the patient’s immediate location.

The clinical laboratory in conjunction with departments that perform Point-of-Care Testing coordinates all activities associated with the program:

- Review and approval of testing procedures and equipment,
- Monitoring Quality Control,
- Proficiency Testing,
- Training of individuals who performed testing.

Requests to add a test to the program must be submitted to the Manager of Laboratory Support Services and approved by the site Laboratory Medical Director. Moderately Complex Point-of-Care Testing at Saratoga Hospital and Wilton Medical Arts is licensed by the New York State and must meet all CLIA, CAP and JC guidelines for laboratory testing.

## **ANATOMIC PATHOLOGY SERVICES**

**ANATOMIC PATHOLOGY-** provides diagnostic surgical pathology, frozen sections, cytopathology, autopsy, and transcription services.

A completed pathology/cytology requisition is required with each specimen. All pertinent clinical information must be included to ensure accurate surgical and cytologic evaluation. Computer order entry is available for anatomic pathology for inpatients.

**PATHOLOGY DEPARTMENT-** prepares and processes tissue specimens for microscopic diagnoses. Specimens are received in fixative, unless special studies are requested, and labeled appropriately.

**CYTOLOGY DEPARTMENT-** processes body fluids, fine needle aspirations and thinprep pap smears for cytologic diagnoses. If delivery is delayed, refrigerate fresh specimens.

**AUTOPSY SERVICES:** Medical staff of Saratoga Hospital may request an autopsy on deceased inpatients, in consultation with the pathologist.

For additional instructions or information call extension 8752 or 2581 (within hospital) or 583-8442 (outside the hospital).

## **TRANSFUSION SERVICE**

### **Services Provided:**

- Stores and distributes blood, blood products, allograft tissues, and Rhogam.
- Performs ABO and Rh typing, antibody screening, compatibility testing, antibody identification studies and direct antiglobulin testing.

## Transfusion Protocols:

1. A written order by a credentialed practitioner is required for all transfusion requests. Inpatient requests are ordered by the patient care unit through the computer system. Outpatient requests must be scheduled through the Inpatient Admitting (583-8432). It is preferable to schedule outpatient transfusions two days post specimen collection to ensure that the product is available for transfusion.
2. Requests must include the product, amount and the reason for transfusion. The transfusion service must be contacted in advance for special product requirements (Platelet products, Irradiated, CMV negative, HLA matched).
3. The Saratoga Hospital Blood Bank and Transfusion Committee has established written criteria for the transfusion of blood products which are available upon request.
4. The type and screen (TS) protocol is designed for cases where the need for transfusion is rare. The patient's blood sample is tested for ABO and Rh and screened for atypical antibodies. If needed, a crossmatch can be completed within 10 minutes for patients with no atypical antibodies. Patients with atypical antibodies are automatically converted to a type and crossmatch for two units.
5. Transfusion reactions: All suspected transfusion reactions are considered stat and must be reported to the blood bank for follow-up. Refer to the nursing protocols for information on the management of transfusion reactions.

## Blood Bank Specimen Labeling:

Positive identification of the patient is the most important step in preventing hemolytic transfusion reactions. All patients who will or may receive transfusions must be identified with an armband, which includes the patient's full name, date of birth and a unique identifier. All patients must be identified and specimens labeled according to the Saratoga Hospital's "Patient Identification" and "Specimen Labeling" procedures.

The specimen label must include:

- Patient's full name, correctly spelled and no letters omitted.
- Complete date of birth.
- Inpatient: patient's **medical record number [HO#]**. The account number [X#] is not acceptable.  
Outpatient: The "Typenex" wrist band identification system is used for all outpatients who require (or may require) transfusions. Contact the transfusion service for additional information.
- The date and time the specimen was drawn.
- The initials of the person who drew the specimen.

All specimens that are not labeled properly will be rejected. Specimens drawn from transfusion candidates with no armbands will also be rejected. If there is an emergency where there is no time to collect another specimen, Type "O NEG" uncrossmatched blood will be provided.

This stringent policy is the standard of care for transfusion safety. The reason for the policy is to prevent a break in the chain of identification, which links the patient to the specimen and to the blood product transfused. When the chain is broken, the selection of the blood product becomes essentially random-then the risk of a major, potentially fatal, hemolytic transfusion reaction because of an ABO mismatch, approaches 30%. Our specimen labeling policy is consistent with requirements established by the FDA, NYS and other regulatory agencies.

## Products:

- All blood products are obtained from blood centers that are AABB accredited, FDA Registered, FDA Licensed and CLIA Certified. Most products come from the New York Penn region of the American Red Cross.
- Tissue products are ordered exclusively by Surgical Central Supply. Tissue is stored in the blood bank and issued upon the request of the OR.
- Red blood cells and plasma are the most frequently requested products and are routinely stocked in the blood bank.
- Less frequently used products are ordered on an as-needed basis from the Red Cross. These products should only be ordered if there is an order to transfuse. Products that are not transfused are not returnable to the Red Cross and will be discarded.
- Autologous and Directed donations: Since the transfusion service is not a blood collection center, we refer all requests for autologous and directed donations to the American Red Cross. Autologous blood donations for surgical patients are scheduled by the physician directly with the Red Cross.

PRODUCT	AVAILABILITY	VOLUME	STORAGE	SHELF LIFE
Packed RBC, Leuko-reduced	Stock	300 ml	1-6° C	42 days
Packed RBC, Leuko-reduced, Irradiated	Stock	300 ml	1-6° C	28 days
Frozen plasma (FP24)	Stock	170-300 ml	-18- -65° C; Thaw in 37° C water bath for 15 minutes.	Frozen- 1 year Thawed 24 hours
Thawed plasma (FP5)	Stock	170-300 m.	1-6° C	5 days
Plateletpheresis	Special order	100-500 ml	20-24° C	5 days
HLA plateletpheresis	Special order	100-500 ml	20-24° C	5 days
Plateletpheresis, Pathogen Reduced (Psoralen treated)	Special order	100-500 ml	20-24° C	5 days
Cryoprecipitate, pooled	Stock	15 ml	-18° C; thaw in 37° C water bath for 10 minutes	1 year
Rhogam	Stock	Syringe	1-4° C	2 years

## **LABORATORY SPECIALTIES**

### **CHEMISTRY**

Chemistry conducts routine Clinical Chemistry, Therapeutic drugs, Endocrinology and Toxicology.

### **HEMATOLOGY**

The hematology laboratory performs blood counts, body fluid cell counts, coagulation studies, differentials, semen analysis and urinalysis testing. Technologists assist physicians in the collection and preparation of bone marrow aspirates performed on site.

### **CLINICAL MICROBIOLOGY**

Bacterial Cultures are performed 7 days/week, 7am - 3pm. Organism identification and antimicrobial susceptibilities are performed when appropriate.

Acid Fast smears and cultures for Mycobacteria are performed by a reference lab. Fungal Cultures are performed by a reference lab

Rapid antigen testing for group A Streptococcus, RSV, and Trichomonas are performed 7 days/week, 24 hours/day.

Molecular diagnostic testing for Clostridium difficile, Influenza, RSV, MRSA, and COVID-19.

### **REFERENCE LABORATORIES**

Tests that are not performed at our on-site laboratories are referred to outside reference laboratories. Reference laboratories must also hold the appropriate New York State laboratory permits. Criteria based on quality and responsiveness to our customers' needs are used in the selection of all reference laboratories. Our reference laboratories are approved by the Saratoga Hospital's Medical Executive committee on an annual basis. A current list of all approved reference laboratories is available by contacting the Quality/Compliance Coordinator or Laboratory Director. (518-580-2594).

# CLIENT SERVICES

## RESOLVING CUSTOMER COMPLAINTS

The staff at Saratoga Hospital is committed to resolving issues to the satisfaction of our customers. It is important to us that you let us know when we have failed to meet your expectations. Issues can be referred to the Administrative Laboratory Director (518-583-8443), or Quality/Compliance Coordinator (518-580-2594) or the appropriate Manager. (see [Clinical Laboratory Telephone Directory](#)).

## REQUEST FOR SUPPLIES

Outreach Clients: In accordance with New York State law on Laboratory Business Practices (Subpart 34-2 of 10 NYCRR), the laboratory will provide supplies to collect, process and transport specimens sent to our laboratory for testing. To obtain supplies, please complete an “*Outpatient Clinical Laboratory Supply Request*” or the “*Pathology Laboratory Supply Request*” form. Allow three business days for routine deliveries.

Inpatient: Supplies for routine blood collection and urine tubes are available from the laboratory. Specimen collection cups are available from General Stores.

## TEST REQUISITIONS

The laboratory will examine specimens only at the request of licensed physicians or other person authorized by law to use the findings of laboratory examinations in their practice or the performance of their official duties. Authorized persons include:

- Physicians
- Dentists and podiatrists
- Chiropractors
- Physician Assistants and Certified Nurse-Midwives provided the supervising physician authorizes such examination.
- Nurse Practitioners
- Police officers provided such examination is incidental to arrest charges for alcohol or drug impairment.
- Judges ordering paternity tests under the Family Court Act.

Inpatient: For each pathology/cytology specimens, a completed pathology/cytology requisition is required. All pertinent clinical information must be included to ensure accurate surgical and cytologic evaluation. All other tests are ordered by the patient care unit through the hospital’s computer system.

Outpatient: The laboratory provides pre-printed requisitions for outpatient test requests.

The following information is required prior to the testing of any specimen:

- Name, address and phone number of physician.
- Signature of physician or designee. (Stamps are not acceptable. Electronic signatures are acceptable but must be approved by the HIS director.)
- Date of order (we will not accept written requests that are more than 12 months old).
- Patient’s full name and date of birth
- Diagnosis for each test requested. ICD-10 code is preferred.

- Name of tests (s)

Refer to Pathology for additional requirements to be included on the requisition.

Insurance information:

Insurance information must be obtained for all requested laboratory services. Written documentation on the requisition is preferred but not required. If insurance information is not available, the patient will be billed.

Standing orders:

Standing orders are used when the patient is required to have lab tests over a period of time [i.e. Protime, monthly]. These orders are valid for a period of ***6 months from the date of the original requisition.*** Renewals of standing orders that have expired are the responsibility of the provider and the patient.

## **NOTICE TO PHYSICIANS REGARDING MEDICAL NECESSITY**

The Centers for Medicare and Medicaid Services (CMS) requires that we notify physicians and other providers legally authorized to order laboratory tests that Medicare will only pay for tests that meet the Medicare coverage criteria and are considered “reasonable and necessary” to treat or diagnose the patient’s medical condition.

Diagnosis: Physicians are required to provide a diagnosis that medically justifies each laboratory test at the time the request for testing is presented. It is critical that the information provided is consistent with the documentation in the patient’s record since it may be requested as part of a post payment review.

Organ and Disease Panels: All panels (organ and disease or custom) can only be billed and paid when all components in the panel are medically necessary.

Medicare Fee Schedule: A current Medicare laboratory fee schedule with CPT codes is available upon request from the Saratoga Hospital Laboratory. The Medicaid reimbursement amount is equal to or less than the amount of Medicare reimbursement.

Clinical Consultant: Access to a clinical consultant regarding laboratory tests is available at 518-583-8442.

Material contained in this notification is current as of the date published and is subject to change without notice. The OIG believes that a physician who orders medically unnecessary tests and knowingly causes a false claim to be submitted may be subject to sanctions or remedies under criminal or administrative law.

## **COVERAGE DECISIONS/ ADVANCE BENEFICIARY NOTICES (ABN)**

In order to ensure that services being paid by the Medicare program are medically necessary CMS has established National Coverage Determinations (NCDs) and has required local carrier to establish Local Coverage Determinations (LCDs). Each policy lists the diagnosis for which Medicare considers a test to be medically necessary. Tests that have an NCD or LCD associated with them are highlighted on the Saratoga Hospital Laboratory requisition.

Please refer to the Center for Medicare Service (CMS) website for a complete list of coverage decisions.

Patients presenting directly to our patient service centers have their tests screened for medical necessity prior to collecting the specimen. If there is a reason to suspect that the test is not covered by Medicare, the patient is notified and asked to sign an Advanced Beneficiary Notice (ABN). This informs the patient that the test ordered by their provider does not meet Medicare's guidelines and will not be paid by Medicare. If the patient signs the ABN, they are acknowledging that they are responsible for payment.

Medicare can deny claims based on the following:

- Medicare does not usually pay for this service for the diagnosis provided (See appropriate NCD or LCD).
- Medicare does not pay for investigational or research use of tests.
- Medicare does not pay for this service based on frequency limitations. Examples of tests with frequency limitations include fecal occult blood, PSA and pap smears when ordered for screening purposes.
- Medicare does not pay for most routine screening tests.
- Medicare does not pay for tests ordered as part of an annual physical exam.

Once signed, the patient is given a copy of the ABN.

## **TRANSPORT AND COURIER SERVICES**

The Clinical Laboratory provides courier service for pickup of laboratory specimens, and delivery of supplies and reports (phone 518-580-2516). Our courier staff is trained to ensure prompt and reliable service to our clients. Courier service is available Monday-Friday on a regular schedule. Limited STAT pickup of specimens is available on request.

## **TURN AROUND TIME FOR LABORATORY TESTS**

Cytology Thinprep Pap Smear: Results are available within 7 days for normal specimens. Abnormal specimens may require 10 days.

Pathology and Non-Gyn Cytology: Results are usually available 24-48 hours after specimen receipt.

Clinical Laboratory- With the exception of tests sent to reference laboratories, most laboratory results are available on the same day. Exceptions are noted in the service directory of tests.

## PROCESSING REQUESTS FOR STAT TESTING

Stat testing represents a critical clinical need for timely results. The goal for all stat testing is that results will be available as fast as possible and, at most, within one hour of receipt of the specimen in the laboratory. Requests for stat testing should be authorized by the provider. For inpatient requests, the test must be ordered as priority “S” in the order entry computer system. Paper requisitions must be clearly marked as stat.

After completion of testing, the outpatient results will be broadcasted, faxed or called to the appropriate location. If results are to be called or faxed, please be sure to include a phone or fax number on the requisition.

### STAT PROCEDURE LIST

This list is not intended to be an exclusive list of stat tests. Other tests on the laboratory’s menu may be run on a stat basis but may require a turnaround time (TAT) longer than one hour. Stat availability for satellite laboratories is limited to tests performed at those sites.

\* Includes tests performed by satellite laboratories.

<b>BACTERIOLOGY</b>	<b>BLOOD BANK</b>
Collection of blood for culture	Compatibility testing
	Direct Coombs (Direct Antiglobulin Test)
Gram Stain (CSF, Positive Blood Sterile Body Fluid Cultures)	Distribution of blood products
	Type (ABO and Rh)
Rapid Strep A* (Antigen)	Type and Antibody Screen
Rapid RSV *(Antigen)	Work-up of Transfusion Reaction
Rapid Trichomonas* (Antigen).	
<b>CHEMISTRY</b>	
Acetaminophen	Gentamicin
Acetone	Glucose*
	Pregnancy HCG – qualitative (urine or serum)
Basic Metabolic Profile (Glu, BUN, Creat, Electrolytes)*	Pregnancy HCG – quantitative (serum)*
Bilirubin*	Lactic Acid
BUN*	Lithium
B-NP	Magnesium*
Calcium*	Infectious Mono*
Carbamazepine	Myoglobin
CK*	Osmolality
	pH (Urine, Fluids, etc.)
Comprehensive Metabolic Profile*	Phosphorus
Creatinine*	Phenobarbital
	Procalcitonin
Digoxin	Protein (CSF)
Dilantin	Salicylate
Drug Screen (Urine)	Theophylline
Electrolytes*	Tobramycin
Ethanol	Troponin *
<b>HEMATOLOGY</b>	
CBC (w/out differential)*	Prothrombin Time (Prottime)
CSF/Fluid cell count	Partial Thromboplastin Time
Hemoglobin and Hematocrit*	Stool for Occult Blood-ED/Urgent care only*
Platelet count*	Urinalysis*

## LABORATORY REFLEX TESTS

### Definitions:

Reflex Testing: Additional laboratory testing(s) that is performed when the initial test results are positive or outside normal parameters.

Required Reflex Tests: Some laboratory tests, if positive, require additional separate follow-up testing which is implicit in the provider's order. In these cases, the initial results have limited clinical value without the additional testing.

Optional Reflex Tests: Laboratory tests where the initial positive test result may have clinical value without the additional reflex testing. The provider always has the option to order these initial tests without the reflex.

The Laboratory Medical Director and the Medical Executive Committee have approved reflex testing to ensure efficient and timely delivery of results. If the reflex test is not wanted, the provider must document on the requisition that the test is to be performed without the reflex.

### List of Reflex Tests

<b>Initial Test</b> Test performed by Saratoga Hospital and/or affiliates	<b>Reflex Criteria</b>	<b>Reflex Test(s)</b> Test performed by Saratoga Hospital unless specified
<b>Blood Bank</b>		
Antibody Screen	Positive	Antibody Identification Antigen Typing-Patient Antigen Typing-units (If ordered)
Type and Screen	Positive antibody screen	Two RBCs ordered (transfusion candidates only)
Direct Coombs	Positive	Monospecific Direct Coombs Euate
Fetal Screen	Rosettes present	Fetaldex
<b>Chemistry</b>		
Beta HCG	Positive qualitative HCG	Quantitative HCG
Rapid HIV	Positive	HIV Antibody Reflex Confirmatory Test
RPR	Positive	Treponema Pallidum Antibodies
TSH	Abnormal	Free T4
SARS-CoV-2	Presumptive Negative COVID Antigen testing	PCR testing Exception: Client based surveillance testing for negative antigens is exempt from reflex PCR testing.
FLU A & B, RSV and COVID	In-house patients	Cepheid Xpert Xpress SARS-CoV-2/FLU/RSV assay-PCR
<b>Hematology</b>		
CBC	WBC, Neutrophils, Platelets definitive flags and Suspect Flags ( <i>i.e. WBC &lt;1 or &gt; 35.0 x 10<sup>3</sup>/μL</i> )	Slide Review
CBC	RBC, HGB, MCH, RDW, MCV Definitive flags or Suspect Flags	Slide Review

CBC	1. Any Blast or Promyeloocyte, 2. >3 Metamyelocytes and /or Myelocytes, 3. $\geq 10$ Bands, 4. $\geq 10$ NRBCs.	Manual Differential
CBC	1. Peripheral smears with a WBC < 1.0 or > 99.9 X 10 <sup>3</sup> // $\mu$ L, 2. All cases of apparent leukemia, and/or abnormal cells and blasts, unless results are similar to previous specimen, 3. Basophils absolute # above 0.5 X 10 <sup>3</sup> // $\mu$ L.	1.Pathologist Review 2.Flow cytometry based on Pathology Review (flow cytometry performed by reference laboratory).
Cell count and differential; all fluids.	Any cellular elements cannot be positively identified by the technologist including cells classified as "other".	1.Pathologist Review 2.Cytology and Flow cytometry based on Pathology Review (Flow cytometry performed by reference laboratory).
Body Fluids received for cell count (excluding Joint Fluids)	Abnormal findings as determined by pathologists.	Cytology
Urinalysis	Positive for blood, leukocyte esterase, nitrite and/or protein, or clarity everything except clear.	Microscopic exam
Urinalysis Reflex to Culture	WBC > 5/HPF	Urine Culture
Urine Glucose	Negative results on children less than 2 weeks old.	Reducing substances (performed by Lab Corp ).
<b>Microbiology</b>		
Aerobic Cultures Respiratory Cultures CSF Cultures Sterile Body Fluid Cultures Tissue Cultures Urine Cultures Stool Cultures Blood Cultures Genital Cultures	Positive findings (pathogens) when indicated	<b>Confirmatory or Adjunctive Tests:</b> Organism ID and Susceptibility Etest
Throat Cultures and Throat Group A Strep Cultures Genital Strep Cultures GC Culture	Positive findings (pathogens) when indicated	<b>Confirmatory or Adjunctive Tests:</b> Organism ID
Anaerobic Cultures	Positive findings (pathogens) when indicated	<b>Confirmatory or Adjunctive Tests:</b> Organism ID
Tissue Cultures		<b>Confirmatory or Adjunctive Tests:</b> Grind Tissue
Rapid Strep A Antigen	Negative result for children $\leq 18$ years of age and 2 swabs received	Throat Group A Strep Culture (TSS)
C. difficile, PCR	Positive	C. difficile, EIA
<b>Pathology/Cytology</b>		
Pap Smear	Diagnosis is ASCUS to SIL	HPV High Risk Rflx 16/18, 45 (performed by Labcorp)
Body Fluid Cytology	Rule out a lymphoproliferative process	Flow cytometry (performed by reference laboratory).

Thyroid FNA sent with Afirma sample	Bethesda Categories III and IV (AUS/FLUS and SFN/FN)	Afirma Genomic testing (Veracyte)
Breast Biopsy	Ductal carcinoma in situ	ER/PR: 1. Immunohistochemistry stains ( performed by reference laboratory). 2. Interpretation performed by Saratoga Hospital Laboratory pathologists.
Breast Biopsy	Invasive Carcinoma	ER/PR Her2neu By FISH: 1. ER/PR Immunohistochemistry stains (performed by reference laboratory). 2. ER/PR Interpretation performed by Saratoga Hospital Laboratory pathologists. 3. FISH testing and interpretation (performed by reference laboratory). 4. Ki-67( performed by reference laboratory).
<b>Point of Care</b>		
Fingerstick Glucose	>600 mg/dL	Serum/Plasma Glucose
CBC POC	WBC, Neutrophils, Lymphocytes, Platelets, RBC, Hemoglobin, Hematocrit, MCV, definitive flags and suspect flags	CBC with Differential (performed at main lab).

## Send-Out Testing

The following is a list of reflex tests that are commonly performed by our reference laboratories. For a complete list of tests and specimen requirements, visit the LabCorp website <https://www.labcorp.com/providers>

Reflex tests performed by LabCorp
733692 9+Oxycodone+Crt-Scr
733727 10+Oxycodone+Crt-Scr
ANA w/Reflex
ANA w/Reflex if Positive
Antinuclear Antibodies, IFA
Antiphospholipid Syndrome Prof
BKV Quant PCR
C difficile, Cytotoxin B
Celiac Disease Ab Screen w/Rfx
Celiac Disease Panel
Cryoglobulin, QI, Serum, Rflx
Drug Screen 10 w/Conf,Meconium
Epstein-Barr DNA Quant, PCR
Ethanol, Urine
Ethyl Glucuronide, Urine
Fungus Culture With Stain
Gluten Sensitivity Screen

HCV RT-PCR, Quant (Graph)
Helper T-Lymph-CD4
Hexagonal Phase Phospholipid
Hgb Fractionation Cascade
HIV Ab/p24 Ag with Reflex
HPV, Aptima High 16/18,45
HSV 1 and 2-Spec Ab, IgG w/Rfx
IFE and PE, Serum
IgE Food Basic w/Component Rfx
Legionella pneumophila/Culture
Lupus Anticoagulant Reflex
Ova + Parasite Exam
PCB Serum w/rfx to Confirmation
PSA (Reflex To Free) (Serial)
Reference Bacterial Culture ID
RF Antibody Titer
Stool Culture
Susceptibility, Aer + Anaerob
T + B-Lymphocyte Differential
TgAb+Thyroglobulin,IMA or RIA
Toxoplasma gondii Ab,IgM
Urine Culture, Routine
von Willebrand Profile
White Blood Cells (WBC), Stool
<b>Reflex Tests Performed by DRUGSCAN</b>
Utox
<b>Reflex Tests Performed by AMC</b>
Anaplasma PCR or Ehrlichia PCR ordered individually (Anaplasma PCR and Ehrlichia PCR is ordered as a combined panel.)
Hepatitis B Core w/reflex to IGM
Hepatitis B surface Antigen with Confirmatory Testing
Hepatitis C (HCV) Antibody
Lyme AB IGG/IGM

## **REPORTING TEST RESULTS**

Please notify the Laboratory Client Services Department at (518)583-8740 of any changes in location for a provider.

Outpatient reports: The laboratory offers several options for the delivery of test results:

- Electronic Reports: Saratoga Hospital has options for electronic reporting of results, including the routing of results through our regional health information exchange HIXNY.

Contact the Laboratory LIS Coordinator (518-580-2810) for additional information.

- Printers: Depending on the volume, providers may request a printer that will transmit reports directly to their office. The report frequency can be customized based on provider's needs.
- Automatic fax: Results can be faxed to the provider on a scheduled basis with stats broadcast as soon as they are complete.
- Delivery by courier: Scheduled morning and afternoon deliveries are available for local providers.
- Out of town providers: These reports are generated several times a day and are mailed and/or faxed to the providers.

#### Inpatient reports:

- Computer access: Results are available directly from the hospital's computer system using the PCI or Clinical Review function. This functionality is available to all units.
- Result are available to providers enrolled with the HINXY provider portal.

## **REPORTING CRITICAL VALUES/ALERT VALUES**

Critical Results: A laboratory result that indicates the presence of a life-threatening emergency, which may be corrected by appropriate and timely intervention. Critical values are always called by the technologist directly to the appropriate nurse or designee, who is responsible for communicating the value to an authorized provider in a timely manner.

Significantly Abnormal (Alert) Results: Results that are significantly abnormal but do not constitute a medical crisis. These are urgent results that may require prompt action by a responsible provider. The laboratory technologist will call the result to the appropriate nurse or designee as soon as possible.

Critical results and significantly abnormal results reported by reference laboratories are also included under this policy.

### **Critical Result Reporting:**

Once a critical value has been identified, the result is **immediately** called to the appropriate nurse or designee. The person receiving the result must read the result back to the technologist to ensure that it has been interpreted correctly. The procedure is as follows:

1. Inpatient:
  - a. If the patient has not been discharged from the hospital, the technologist will call the appropriate patient care unit and give the results to a nurse or designee who will communicate the value to the appropriate provider in a timely manner.
  - b. If the patient has been discharged from the hospital:
    - i. From 8 AM to 8 PM, the technologist will notify the Hospitalist Physician On Call who is identified in the Qgenda scheduling system under the heading "Inpatient Physicians Section " as "SIP Inpatient Call 8AM to 8 PM
    - ii. From 8 PM to 8 AM, the technologist will notify the Hospitalist Advanced Practitioner On Call who is identified in the Qgenda scheduling system under the heading " Inpatient Physician Section "as "SIP PA Night 8 Pm to 8 AM".
2. Emergency Department
  - a. Call the ED and give the results to the physician on duty who is identified in the Qgenda scheduling system.

3. Wilton Medical Arts Urgent Care

- a. Call the Urgent Care and give the results to a nurse or designee who will communicate the value to the appropriate provider in a timely manner.
4. Saratoga Hospital Medical Group- Hematology/Oncology
    - a. The technologist in the Hematology/Oncology Lab will hand carry the printed results to a nurse and/or provider. The nurse will communicate the value to appropriate provider in a timely manner.
5. Outpatient
    - a. During business hours: Call the provider's office and give the result directly to a nurse or the provider.
    - b. After business hours: Before contacting the on-call provider, obtain the patient's demographic information and home phone number. (Meditech' Admissions Module "View Patient" routine).
    - c. Escalation Process:
      - i. If the lab is unable to reach an office or medical professional in 30 minutes, then the attending provider or the designated on-call provider will be paged no less than three times per hour until the provider responds.
      - ii. If the provider or applicable caregiver cannot be reached within 60 minutes, the laboratory staff will deliver the critical lab value to the Emergency Department or Wilton Urgent care staff along with a copy of the patient's demographic sheet, a Critical Value Report form and the name of the attending provider.
      - iii. The Emergency Department attending physician will review the lab critical value. The attending physician will be paged again and if there is no response the staff will contact the patient and recommend needed follow-up.

## Critical Values/Alert Results

**Critical results:** *These results must be communicated to the responsible licensed caregiver within 60 minutes of initial recognition of the critical result by the notifying diagnostic area.*

**Alert Results:** *Should be communicated to the responsible caregiver within 8 hours but no later than the next business day. Department specific protocols apply.*

**Results are called unless noted otherwise:**

\*First instance only= No critical value in the same result range (high vs. low) in the past 5 days.

\*\* Electronic notification; no call required.

\*\*\*Send-out test.

BLOOD BANK		CRITICAL	ALERT
Direct Coombs		Positive with evidence of acute hemolytic reaction.	
CHEMISTRY/HEMATOLOGY			
Acetaminophen (ug/mL)	High	≥50	
Amylase (U/L)***	High		>500**
Bicarbonate (mmol)	Low	<10	
BUN (mg/dL)	High		>100**
Calcium (total) (mg/dL)	High	>13.0; first instance only	>13.0; not first instance
	Low	<7; first instance only	<7; not first instance
Carbamazepine (ug/mL)	High	>15.0	
CK (IU/L)	High		>1000
CKMB (ng/ml)***	High	>5.0 with a relative index of ≥4; indicative of acute MI; first instance only	
Creatinine (mg/dL)	High		>4.0**
Digoxin (ng/mL)	High	≥2.0	
Gentamicin Peak (ug/mL)	High	>12.0	
Gentamicin Random (ug/mL)	High	>10.0	
Gentamicin Trough (ug/mL)	High	>2.0	
Glucose (mg/dL)	High	>450	
	Low	<50	
	High	>200	
	Low	<40	
<i>Birth-30 days</i>			
Glucose-Urinalysis- <i>Birth to 18 years</i>		Any positive result	
Hemoglobin (g/dl)	High	>20	
	Low	<7.0	<8.0
		Critical drop: > 3	
Hematocrit (%)	High	>60	
	Low	<22	
	Low	<30	
<i>Birth- two weeks</i>			
INR	High	>5	
Lactate/Lactic acid (mmol/L)	High	≥2.0	
Lithium (mmol/L)	High	>1.5	
Magnesium (mg/dL)	High	>5.0; first instance only	>5.0; not first instance
	Low	<1; first instance only	<1; not first instance
	High	≥7	
	Low	□4	
<i>Maternity only</i>			

Manual Differential			Blast or malignant cells; first instance only
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PH	High	>7.6	
	Low	<7.2	
Phenobarbital (ug/mL)	High	>50.0	

Phenytoin (ug/mL)	High	>30.0	
Phosphorus (mg/dl)	Low	<1.0	
Platelets (x 10 <sup>9</sup> )  <i>Birth- two weeks</i>	High	>1000; first instance only	
	Low	<30; first instance only	
	High	>900	
	Low	<50	
Potassium (mmol/L)	High	>6.0	
	Low	<2.8	
PO2	Low	<55	
PTT	High	>80 NO heparin	
		>100 (patients on heparin)	
Salicylate (mg/dL)	High	≥30.0	
AST/SGOT (IU/L)	High		>500**
ALT/SGPT (IU/L)	High		>500**
Sodium (mmol/L)	High	>160	
	Low	<120	
Theophylline (ug/mL)	High	>20.0	
Tobramycin Peak (ug/mL)	High	>12.0	
Tobramycin Random (ug/mL)	High	>10.0	
Tobramycin Trough (ug/mL)	High	>2.0	
Total Bilirubin (mg/dL) <i>Birth- two weeks</i>	High	>15.0	
High Sensitivity Troponin (ng/ml)	High	High Sensitivity Troponin I consistent with possible myocardial injury: <ul style="list-style-type: none"> <li>Any level &gt; 75ng/L;</li> <li>Delta 2HR &gt; 10ng/L ***</li> <li>Delta 6HR &gt; 12ng/L ***</li> </ul> ***Lab is unable to call critical Deltas	
Valproic Acid (ug/mL)	High	>125.0	
Vancomycin Peak (ug/mL)	High	>80.0	
Vancomycin Random (ug/mL)	High	>20.0	
Vancomycin Trough (ug/mL)	High	>20.0	
WBC (x10 <sup>3</sup> μL)	High	>35; first instance only	
	Low	<1; first instance only	
<b>MICROBIOLOGY</b>		<b>CRITICAL</b>	<b>ALERT</b>
<b>STAINS</b>			
CSF		Positive	
Blood Culture		Positive; first set Positive; 2 <sup>nd</sup> set different organism	Positive -2nd set/same organism
Fluids from joint or other body cavity that are normally sterile (except urine)		Positive	
STAT OR Specimens for Gram stain		Positive	
AFB smear***		Positive	
<b>CULTURES</b>			
CSF		Positive-if smear was as negative	
Blood Culture		Positive	
Culture of fluids from joint or other body cavity that are normally sterile (except urine)		Positive	
Wound Culture		Positive for Clostridium	
All MDROs, VRE/MRSA/VISA/VRSA			Positive
Stool			Salmonella, Shigella, Campylobacter
<b>ANTIGEN/TOXINS</b>			
C Diff toxins			Positive
Fluids from joint or other body cavity that are normally sterile (except urine)		Positive	
Legionella Antigen-Urine***		Positive	

Laboratory critical values revised:01/06/23

# **SPECIMEN COLLECTION AND TRANSPORT**

## **SPECIMEN LABELING**

Laboratory results are used by physicians to provide quality patient care. Proper patient identification and specimen labeling is essential in providing accurate results that can safely be used in decision-making by the physician.

### **Identify the patient:**

Ask the patient to state their full name and date of birth prior to collecting the specimen. Specimen containers are to be labeled with proper patient identification in the presence of the patient and immediately after completing the collection procedure. (Employees of Saratoga Hospital should refer to the “*Patient Identification*” and “*Specimen Labeling Policy*” for additional instructions on specimen labeling).

### **Additional information:**

To ensure proper specimen processing, the following information should be on the specimen label:

1. Patient full name and date of birth.
2. Specimen type and/or anatomic collection site
3. Date and time of collection
4. Initials of the collector

Refer to Pathology and Blood Bank for additional information.

## **SPECIMEN PACKAGING AND TRANSPORT**

All specimens are considered biohazardous. Specimens must be collected in sterile leak-proof containers and placed into a sealable plastic bag prior to transport to the laboratory. Requisitions and specimen labels must be left outside the bag to prevent contamination.

Transport specimens to the laboratory as soon as possible. See “Table of Diagnostic Tests” and for specific information on specimen storage and transport. Improper specimen storage can adversely affect test results.

## **REJECTION OF SPECIMENS**

Specimens will be rejected if the following conditions are not met:

1. Patient identification on specimen is omitted, illegible, insufficient or incorrect.
2. The apparent condition of the specimen indicates that it is unsatisfactory for testing or that it is inappropriate for the test requested.
3. It has been collected, labeled, preserved or otherwise handled in such a manner that it has become unsatisfactory or unreliable as a test result.
4. It is perishable and the time lapse between the collection of the specimen and its receipt by the laboratory is of such duration that the test finding may no longer be reliable.

The laboratory will promptly contact the provider/patient care unit regarding specimen rejections.

## **COLLECTION PROTOCOLS**

Refer to the Saratoga Hospital Laboratory Specimen Reference Guide for general collection instructions.

## SPECIAL SPECIMEN COLLECTION REQUIREMENTS/NOTES

### *Hematology:*

#### **BODY**

**FLUIDS:** A body fluid cell count/differential requires 1-2 ml of fluid in EDTA lavender top tube.

**BONE MARROWS** Call hematology (8750) to schedule an appointment. Technologists will assist from 8:30 a.m. to 2:00 p.m. Monday – Friday.

**CSF:** Cerebrospinal fluid cell counts/diffs require 1-2 ml of CSF in an 8 ml plastic tube. Differentials are not performed unless WBC is greater than 5 WBC/mm<sup>3</sup>.

**PT, PTT, FIBRINOGEN, & D-DIMER:** All tests must be collected in a blue-top tube containing 3.2% buffered sodium citrate. Evacuated collection tubes must be filled to completion to ensure a proper blood-to-anticoagulant ratio. The sample should be mixed immediately by gentle inversion at least six times to ensure adequate mixing of the anticoagulant with the blood.

A discard tube is not required prior to collection of coagulation samples unless a winged blood collection kit is being used. **Winged blood collection kits (butterfly) must use a discard lead tube prior to collecting specimen tube to submit for testing.** This discard tube must be a blue-top tube containing 3.2% buffered sodium citrate or a non-additive tube white top tube.

If it is necessary to draw from an in-dwelling line, flush with saline: to avoid Heparin contamination and dilution of specimen, a minimum of 5 cc of blood should be discarded before collecting the specimen.

- PT specimens are stable for 24 hours.
- Fibrinogen and D-Dimers should be performed within 4 hours of collections.
- PTT specimens should be centrifuged within 1 hour of collection. If testing cannot be performed within one hour of collection, frozen plasma must be submitted. Specimens should be centrifuged for at least 15 minutes at 1500xg to produce platelet-poor plasma and the plasma **quick frozen** and maintained in this condition until tested.

### Notes:

1. **High Hematocrit Samples.** Patients with an elevated hematocrit have a relatively low amount of plasma for a given whole blood (collection) volume. This tends to effectively increase the plasma citrate concentration. If the patient has a known hematocrit >55%, the amount of citrate in the collection tube must be decreased according to the formula below:

$$\text{Citrate volume} = (100 - \text{hematocrit}) / (595 - \text{hematocrit}) \times \text{total volume}$$

**Example:** Patient hematocrit = 60%

$$\begin{aligned} \text{Total volume} &= 5 \text{ mL (standard citrated plasma collection tube volume)} \\ (100 - 60) / (595 - 60) \times 5 &= 0.33 \text{ mL sodium citrate} \end{aligned}$$

2. **Plasma Processing.** Transfer the sample as soon as possible (preferably within 30 minutes of collection). Transfer plasma using a plastic pipette into a plastic tube. Note that glass **should not** be used because glass can activate the clotting cascade. Label each tube "**plasma, citrate.**" The specimen should be **frozen** immediately and maintained frozen until tested.

## ***Microbiology:***

### **Specimen Collection Guidelines**

ESwab Transport Systems consist of 1 flocked swab and 1 vial containing 1ml of transport media, all of which are provided in 1 package.

- **Do not remove transport fluid present in the transport tube.**

Collect specimen before administering antimicrobial agents when possible.

Collect specimen with as little contamination from indigenous flora as possible to ensure that the sample will be representative of the infected site.

Utilize appropriate collection procedures using sterile equipment and aseptic technique to collect specimens to prevent contamination of specimens during invasive procedures.

Collect an adequate amount of specimen. Inadequate amounts of specimen may yield false-negative results.

Collect specimens in a sturdy, sterile, leak-proof container.

- Sending a syringe is acceptable but the following steps must be performed:
  - **REMOVE THE NEEDLE** from the syringe.
  - **EXPEL ALL AIR** from the syringe.
  - Cap the syringe is tightly.
  - **\*\*DO NOT SEND A CAPPED SYRINGE IN A VACUUM TUBE SYSTEM!**

### **Unacceptable Specimens**

- Specimens received in leaking, cracked or broken containers.
- Swabs that have been delayed in transit more than 1 hour, if they are **NOT** in some type of system containing transport media.
- Specimens collected using swabs with cotton tips or wooden shafts.
- Specimens collected with calcium alginate swabs.
- Specimens with obvious (visually apparent) contamination.
- Specimens not appropriate for a particular test.
- Specimens submitted for anaerobic culture which by definition contain normal anaerobic flora (vaginal, GI, upper respiratory).
- Duplicate throat, urine, sputum, or stool specimens within a 24 hr. period.
- Specimens that are not the correct volume.
- Specimens in formalin.

## Blood Culture Specimen Type and Collection

**Test Name:** (BCUL) Blood Culture

**Media:** BacT/ALERT Aerobic (FA or FA Plus) Bottle (green cap), **Fill Volume:** minimal is 5 ml, maximum is 10 ml  
 BacT/ALERT Anaerobic (FN or FN Plus) Bottle (orange top), **Fill Volume:** minimal is 5 ml, maximum is 10 ml  
 BacT/ALERT Pediatric (PF or PF Plus) Bottle (yellow cap), **Fill Volume:** minimal is 0.5 ml, maximum is 5 ml

**Store and Transport:** Room Temperature (transport as soon as possible for optimum results)

Specimen Type	Collection/Container	Comments
<b>Neonates to 1 year</b>	BacT/ALERT Pediatric (PF or PF Plus) Bottle (0.5 to 1.5 ml...at least 1.0 ml is preferred)	<p>♪<b>Note:</b> <i>Recent studies have shown no difference in microbial recovery when blood specimens were drawn for culture simultaneously or at spaced intervals for up to 24 hours. Recent studies also have shown no significant differences in positivity rates of blood cultures obtained in relation to fever spikes of patients.</i></p> <p><b><i>Volume of blood collected is the most important variable in detecting bacteremia or fungemia.</i></b></p> <p>Single blood cultures should <b>NEVER</b> be drawn from adult patients.</p> <p>Blood cultures should not be repeated in 2 to 5 days because blood does not become sterile immediately following the start of antimicrobial therapy.</p> <ul style="list-style-type: none"> <li>• Exception: Patients with infective endocarditis.</li> <li>• Exception: Patients with <i>Staphylococcus aureus</i> bacteremia, where positive follow-up blood cultures at 48 to 96 hours were the strongest predictor of complicated <i>S.aureus</i> bacteremia.</li> </ul> <p>The use of surveillance blood cultures for earlier detection of sepsis should be limited to certain populations such as those in intensive care, undergoing transplantation or with vascular catheters.</p> <p>The optimal recovery of bacteria and fungi from blood depends on culturing an adequate volume of blood. <i>Pediatric patients often have higher numbers of microorganisms in their blood however low-level bacteremia may also occur.</i></p>
<b>Children: 1 to 6 yrs</b>	BacT/ALERT Pediatric (PF or PF Plus) Bottle (1 ml per year of age, divided between 2 blood culture orders)	
<b>Children weighing 30 to 80 lbs</b>	<p style="text-align: center;"><b><u>Total 8 to 20 ml</u></b> (divided between 2 blood cultures orders)</p> <p style="text-align: center;">□</p> <p>4 ml in BacT/ALERT Pediatric (PF or PF Plus) Bottle x 2 draws = <b>8ml total</b></p> <p style="text-align: center;"><b>–OR–</b></p> <p>5ml in each BacT/ALERT Aerobic (FA or FA Plus) Bottle and Anaerobic (FN or FN Plus) Bottle x 2 draws = <b>20ml total</b></p>	
<b>Adults and children weighing &gt;80 lbs</b>	<p style="text-align: center;"><b>7.5 to 10 ml in each bottle:</b> 1 BacT/ALERT Aerobic (FA or FA Plus) and 1 BacT/ALERT Anaerobic (FN or FN Plus) Vial</p> <p style="text-align: center;"><b>5 to 7.5 ml in each bottle</b> (is <u>minimal amount</u>): 1 BacT/ALERT Aerobic (FA or FA Plus) Bottle and 1 BacT/ALERT Anaerobic (FN or FN Plus) Bottle</p>	<p><b>Frequency:</b> Blood Cultures should be drawn simultaneously or over a short timeframe.</p> <p>Drawing blood at intervals is only indicated when it is necessary to document continuous bacteremia in patients with suspected infective endocarditis or other endovascular infections.</p> <p><b>Generally: The present guideline is to collect 2 to 3 sets per episode. SEE CHART ON NEXT PAGE</b></p>

<b>Bacteremia/Fungemia</b>	<b>Recommendations</b>
<b>Acute sepsis, meningitis, pneumoniae, etc. (when immediate antimicrobial therapy is required)</b>	<ul style="list-style-type: none"> <li>• Obtain 2 to 3 sets (of maximum volume) consecutively from separate sites before starting therapy.</li> </ul>
<b>Continuous bacteremia and Subacute infective endocarditis</b>	<ul style="list-style-type: none"> <li>• Draw 3 sets from separate sites, spaced 30 to 60 minutes apart and begin therapy (do not obtain from indwelling catheters)</li> <li>• If all are negative 24 hours later, obtain three more sets as described above.</li> </ul>
<b><u>A</u>cute infective endocarditis</b>	<ul style="list-style-type: none"> <li>• Draw sets within a 30 minute period before starting empiric antimicrobial therapy.</li> </ul>
<b>Fever of unknown origin</b>	<ul style="list-style-type: none"> <li>• Draw 2 to 3 sets in a 24 hr period</li> <li>• Obtain 2 more sets after 24 to 36 hours.</li> </ul>
<b>Pediatric Blood Cultures</b>	<ul style="list-style-type: none"> <li>• Draw 2 to 3 aerobic cultures within a 24 hour period</li> <li>• Anaerobic cultures may be considered in high-risk groups</li> </ul>
<b>Patients on antimicrobial therapy</b>	<ul style="list-style-type: none"> <li>• Collect sample prior to the next dose of antibiotic</li> </ul>

## Body Fluid Culture (includes Gram stain) Specimen Type and Collection

**Test Name:** (BFCUL) Sterile Body Fluid Culture and Gram Stain

**Storage/Transport:** Store at Room Temperature/Transport at Room Temperature immediately or as soon as possible.

Specimen Type (Sterile Body Fluid Sites)	Collection/Container	Comments
<b>Joint Fluid</b> Synovial	<b>Aerobic Culture:</b> <b>5 to 10 ml</b> (5 ml is minimal fill volume) in BacT/ALERT aerobic (FA or FA Plus)	<input type="checkbox"/> Send syringe with <b><u>NEEDLE REMOVED, ALL AIR EXPELLED</u></b> and syringe tightly capped.  If blood culture bottles are sent, please include some fluid in a sterile container for a Gram stain.  <b>Drainage Tube Specimens are <i>discouraged in favor of direct aspiration of the area being drained.</i></b> <ul style="list-style-type: none"> <li>• Disinfect the collection tubing and aseptically aspirate fluid from the tubing.</li> <li>• Submit in dry, sterile, leak proof container.</li> </ul> <b><u>DO NOT</u></b> inoculate blood culture bottles since they are unlikely to increase the yield of significant microbiota.  <b>NOTE: <i>Swabs are the least appropriate specimens.</i></b> If a swab is to be used for collection, use the ESwab Transport System.
<b>Pleural Fluid</b> Empyema Thoracentesis	blood culture bottle –OR– <b>0.5 to 4 ml</b> in BacT/ALERT pediatric (PF or PF Plus)	
<b>Peritoneal Fluid</b> Abdominal Ascites Paracentesis CAPD PV Fluid	blood culture bottle –AND/OR– Sterile Container or Syringe <input type="checkbox"/>	
<b>Pericardial Fluid</b>	<b>Anaerobic Culture:</b> <b>5 to 10 ml</b> (5 ml is minimal fill volume) in BacT/ALERT anaerobic (FN or FN Plus)	
<b>Cul-de-sac Fluid</b> Culdacentesis	blood culture bottle –AND/OR–	
<b>Amniotic Fluid</b> Amniocentesis	Sterile Container or Syringe <input type="checkbox"/>	
<b>Aqueous or Vitreous Fluid</b> (bacterial endophthalmitis)	Needle Aspiration / Syringe or Sterile Container	

## Eye Culture (Gram stain included) Specimen Type and Collection

**Test Name:** (WDCUL) Aerobic Culture and Gram Stain

**Source:** Eye **Add Comment:** Right or Left

**Storage/Transport:** Store at Room Temperature/Transport at Room Temperature immediately or as soon as possible.

Specimen Type	Collection/Container	Comments
<b>Conjunctiva</b> (bacterial conjunctivitis) or <b>Lid Margin</b> (staphylococcal blepharconjunctivitis)	Roll sterile swab over the conjunctiva surface/pus or lid margin before topical medications are applied.  ESwab Transport System	<ul style="list-style-type: none"> <li>• <b>Culture both eyes with separate swabs.</b></li> <li>• Type in comment section right or left eye for each.</li> <li>• Submit an inoculated JEMBEC plate if <i>Neisseria gonorrhoeae</i> is suspected.</li> </ul>
<b>Aqueous or Vitreous Fluid</b> (bacterial endophthalmitis)	Needle aspiration  Syringe or Sterile Container	<ul style="list-style-type: none"> <li>• <b>Swab of conjunctiva should also be submitted for culture.</b></li> <li>• Submit an inoculated JEMBEC plate if <i>Neisseria gonorrhoeae</i> is suspected.</li> <li>• Fungi, AFB and <i>Nocardia</i> spp should be ruled out in chronic post surgical and traumatic infections.</li> <li>• Viral Cultures should be collected.</li> <li>• <b>Blood Cultures should be submitted.</b></li> </ul>
<b>Corneal Scrapings</b> (bacterial keratitis)	Obtain corneal scrapings from the advancing edge of the ulcer.  Sterile Container	<ul style="list-style-type: none"> <li>• Swab of conjunctiva should also be submitted for culture.</li> <li>• Fungi, AFB and <i>Nocardia</i> spp should be ruled out in chronic infection.</li> <li>• Corneal ulcers should have viral cultures collected</li> </ul>
<b>Periorbital</b> (preseptal cellulitis)	Swab of opened wound or needle aspiration in absence of an open wound.  Syringe or Sterile Container	<ul style="list-style-type: none"> <li>• Order Aerobic and Anaerobic Cultures</li> <li>• <b>Blood Cultures should be submitted.</b></li> </ul>
<b>Orbital</b> (orbital cellulitis)	Aspirate from wound or biopsy sample of the wound and/or sinus aspirates.  Syringe or Sterile Container	<ul style="list-style-type: none"> <li>• Order Aerobic and Anaerobic Cultures</li> <li>• Blood Cultures should be submitted.</li> <li>• Fungus Culture should be ordered in diabetic and other immunocompromised patients.</li> <li>• Sinus aspirates should be submitted if extension of sinus infection , paranasal infection or endophthalmitis is suspected.</li> </ul>
<b>External Lacrimal Sac</b> (dacryocystitis)	Express pus from lacrimal sac and collect with a swab or syringe.  ESwab Transport System or Syringe	<ul style="list-style-type: none"> <li>• <b>Swab of conjunctiva should also be submitted for culture.</b></li> </ul>
<b>Lacrimal Glands</b> (dacryoadentitis)	Collect specimen of the purulent discharge using a swab.  ESwab Transport System	
<b>Inner Aspect of Eyelid</b> (canaliculitis)	Collect specimen of the purulent discharge using a swab.  ESwab Transport System	<ul style="list-style-type: none"> <li>• Order Aerobic and Anaerobic Cultures</li> </ul>

## Respiratory Culture (includes Gram stain) Specimen Type and Collection

**Test Name:** (RESCUL) Respiratory Culture and Gram Stain

**Storage/Transport:** Transport to the laboratory immediately at Room Temperature. **Refrigerate** at 2 to 8°C if specimen will be delayed less than 30 minutes.

Specimen Type	Collection/Container	Comments
<b>Sputum (Expectorated)</b>	Collected from a deep cough (first morning specimens are the best)  Sterile Container	<b>Follow current nursing procedure for cleaning of mouth before collection.</b>
<b>Sputum (Induced)</b>	Sterile Container	This is performed using an ultrasonic nebulizer to assist the patient in producing a suitable specimen for testing.
<b>Endotracheal Aspirate</b>	Sterile Container	Trach specimens are susceptible to colonization within 24 hrs of collection.
<b>Tracheal Aspirate</b>	Sterile Container	
<b>Bronchoalveolar washing</b>	Bronchoscopy “surgical” collection placed in a Sterile Container	Bronchoalveolar washing is from the major airways which is the same area sampled by an endotracheal aspirate.  These are less suitable for culture than BAL specimens.
<b>Bronchoalveolar lavage (BAL)</b>	Bronchoscopy “surgical” collection placed in a Sterile Container	Bronchoalveolar lavage is from the distal respiratory bronchioles and alveoli.
<b>Bronchial Brush, Protected</b>	Bronchoscopy “surgical” collection placed in a Sterile Container	Bronchial Brush (PSB, protected specimen brushings) placed in nonbacteriostatic sterile saline (involved area is “brushed” and the brush is withdrawn into an inner cannula, which is withdrawn into the outer cannula to prevent contamination as it is removed).

## GC Culture Specimen Type and Collection

**Test Name:** (GCCUL) GC Culture

**Media:** JEMBEC Collection and Transport System (provided by the Microbiology Laboratory)

**Storage/Transport:** See Comment section below. Transport at **Room Temperature** as soon as possible.

**DO NOT REFRIGERATE!!**

Specimen Type (Source)	Collection/Container	Comments
<ul style="list-style-type: none"> <li>• Pharyngeal</li> <li>• Urethral</li> <li>• Rectal</li> <li>• Conjunctiva</li> <li>• Vitreous or aqueous fluid from eye (bacterial endophthalmitis)</li> <li>• Vaginal (preteen-aged females suspected of sexual abuse)</li> <li>• Endocervix (Bartholin’s glands)</li> <li>• Epididymis</li> <li>• Disseminated Gonococcal Infection (DGI)               <ul style="list-style-type: none"> <li>○ Endocervix (female)</li> <li>○ Urethra (male)</li> <li>○ Skin lesions</li> <li>○ Joint fluid (sterile body fluid) from wrist, knee, fingers, ankle or elbow.</li> <li>○ Blood</li> </ul> </li> <li>• Pelvic Inflammatory Disease (PID)               <ul style="list-style-type: none"> <li>○ Endocervix</li> <li>○ Endometrium</li> <li>○ Fallopian tubes (females)</li> </ul> </li> </ul>	<p>(Preferred) Specimens are to be collected using rayon, dacron or flocked swabs and directly inoculated to a JEMBEC agar plate and a CAP agar plate (optional).</p> <p>Inoculate JEMBEC plate in "Z" pattern.</p> <p style="text-align: center;"><b>-OR-</b></p> <p style="text-align: center;"><b><u>ESwab Transport System</u></b></p>	<p><b>NOTE:</b> Vaginal swab specimens are <b>NOT</b> considered optimal for the diagnosis of gonorrhea in women and should be reserved only for the evaluation of preteen-aged girls with suspected sexually transmitted disease due to presumed sexual abuse.</p> <p><b>Transport:</b> Directly plated cultures (JEMBEC) must be transported to the laboratory in an increased CO2 environment.</p> <ul style="list-style-type: none"> <li>• <b>Place CO2 tablet (provided by the Micro Lab) in the specified area of the JEMBEC agar plate.</b></li> <li>• <b>Place the JEMBEC plate in the zip-lock bag (provided by the Micro Lab), seal and immediately transport at <u>room temperature</u> to the Microbiology Laboratory.</b></li> <li>• <b>As transport time increases, recovery decreases</b></li> </ul>

Conjunctival Swabs	<p>Refer to Eye Culture Specimen Type and Collection</p> <p><b>NOTE:</b> Swabs can be accepted <b>ONLY</b> if they are placed in <b>non-nutritive swab transport media (ESwab Transport System)</b> immediately after collection.</p>
Aspirates	<p>Refer to Wound Culture</p> <p>Specify “Culture for GC” in order comments</p>
Sterile Body Fluids	<p>Refer to Body Fluid Culture</p> <p>Specify “Culture for GC” in order comments</p>
Blood Cultures	<p>Refer to Blood Culture</p> <p>Specify “Culture for GC” in order comments</p>

## Wound Culture (includes Gram stain) Specimen Type and Collection

**Test Name:** (WDCUL) Aerobic Culture and Gram Stain

**Source:** Aspirate, Blister, Burn, Cyst, Drainage, Ear, Eye, Fistula, Incision, Lesion, Pus, Rash, Rectal, Skin/Superficial Wound, Wound, Miscellaneous

**Storage/Transport:** Store at Room Temperature/Transport at Room Temperature immediately or as soon as possible.

Specimen Type	Collection/Container	Comments
		<input type="checkbox"/> To send a syringe: <b>REMOVE NEEDLE</b> , expel <b>ALL</b> air and tightly cap syringe.
<b>Biopsy of Open Wounds (Best Sample)</b>	Sterile Container or Syringe <input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Debride if appropriate and thoroughly rinse with sterile saline prior to collection.</li> <li>• Obtain specimen by biopsy from the leading edge of the lesion or base of the infected area, where pathogens should be present and colonizing organisms are less likely to occur.</li> </ul>
<b>Fine Needle Aspirations</b>	Sterile Container or Syringe <input type="checkbox"/>	
<b>Aspirates of Closed Wounds</b>	Sterile Container or Syringe <input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Cleanse (disinfect) skin or mucosal surfaces as for a blood culture collection.</li> <li>• Obtain culture by needle and syringe aspiration from deeper pockets beneath superficial debris.</li> </ul>
<b>Infected Viable Tissue</b>	Sterile Container	<ul style="list-style-type: none"> <li>• Submit tissue, placed on top of sterile gauze wet with nonbacteriostatic saline, in a sterile, leak proof container.</li> </ul>
<b>Pus</b>	Sterile Container or Syringe <input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Aspirate (5 ml the best) the deepest portion of the lesion or exudates with a needle and syringe.</li> <li>• Aspirate or collect pus from bite wounds at the time of incision or debridement and not when the wound is fresh.</li> </ul>
<b>Exudates from the Deep Portion of Lesions</b>	<b><i>ESwab Transport System*</i></b>	<p><b><i>*Swabs are the <u>least</u> appropriate specimens, as the organisms isolated may only be colonizing the area and may not be involved in the infective process.</i></b></p> <ul style="list-style-type: none"> <li>• Remove superficial debris by thoroughly irrigating and cleansing the wound with bacteriostatic sterile saline.</li> <li>• Swab the area where there is evidence of pus or inflamed tissue.</li> </ul>

## AFB Culture Specimen Type and Collection

**Test Name:** (AFBCUL) AFB Culture (Direct Smear) and (AFBSMCUL) Acid Fast Smear & Culture (performed at LabCorp Reference Laboratory)

**Please Note:** Only the Direct Smear (Kinyoun Cold Acid-fast Bacilli Stain – Carbol Fuchsin Stain) is performed at Saratoga Hospital. The specimen will be sent to LabCorp Reference Laboratory for a concentrated acid fast smear & culture (with reflex to identification and susceptibility testing).

- This culture will often detect *Nocardia* species and other aerobic actinomycetes and identification, and susceptibility appropriate for these organisms will be included.
- Identification by DNA probes or sequencing and susceptibility to antimicrobial antibiotics that are appropriate to the organism will be performed at an additional charge.

**Storage/Transport:** Transport to the laboratory immediately at room temperature.

**Refrigerate** at 2 to 8°C if specimen will be delayed less than 30 minutes.

**For any question related to testing procedure, source, container or transport requirements, please call the Microbiology Laboratory at 518-583-8751 prior to collection of specimen.**

Source	Amount & Container	Comments
CSF	5 ml in a sterile, leak proof container	
Fasting Gastric Aspirate/Lavage	5 ml in a sterile, leak proof container	
Respiratory Aspirate • Induced sputum or tracheal aspirates • Bronchial washings or lavages	5 ml in a sterile, leak proof container	Collect aspirate using sterile, nonbacteriostatic saline or other noninhibitory medium
Sputum	5 ml in a sterile, leak proof container	Collect first morning sputum ( <b>NOT</b> saliva). Three (3) separate specimens collected from 3 separate days (8 to 24 hour intervals) are recommended.
Tissue or Biopsy	2 mm (cm <sup>3</sup> ) in a sterile, leak proof container	Swabs of exudate from skin sources are acceptable otherwise swab specimens should <b>NOT</b> be submitted. • Swab will be rejected without visible evidence of tissue present.
Urine	50 ml in a sterile, leak proof container	
Sterile Body Fluid (pleural, pericardial, chronic peritoneal dialysate)	50 ml in a sterile, leak proof container	
Bone Marrow	5 ml (or as much as possible) in a sterile, leak proof container	<input type="checkbox"/> <b>A Direct Smear will not be performed</b>
Whole Blood	10 ml In a green-top (sodium heparin) tube or Isolator Tube	<input type="checkbox"/> <b>A Direct Smear will not be performed</b>
Stool	10 ml in a sterile, leak proof container	<input type="checkbox"/> <b>A Direct Smear will not be performed</b>

## Urine Culture Specimen Type and Collection

**Test Name:** (URCUL) Urine Culture

**Please Note:** Gram stain can be performed if requested by provider. Order (GS) Gram Stain

**Storage/Transport**

- Transport to the laboratory immediately after collection.
- If urine cannot be delivered to the laboratory **within 2 hours** after collection, **refrigerate up to 24 hours** (which includes the holding period and the transport period).
- If refrigeration is not possible and specimen transport will be delayed, collect specimen in transport tubes containing preservatives is acceptable.

Specimen Type	Collection
<b>Clean Catch</b> (Voided midstream)	<ul style="list-style-type: none"> <li>• Refer to <b>Patient Collection</b> section for collection instructions.</li> </ul>
<b>Foley</b> (Indwelling catheter)	<ul style="list-style-type: none"> <li>• Cleanse the catheter port with 70% alcohol moving in concentric circles away from the center.                             <ul style="list-style-type: none"> <li>○ Alcohol only aids in “pushing” any bacteria away from the collection site.</li> </ul> </li> <li>• Using a needle and syringe, collect urine through the catheter port.                             <ul style="list-style-type: none"> <li>○ <b>Never send urine obtained from a catheter bag.</b></li> </ul> </li> <li>• Aseptically dispense the urine collected directly into a disposable leakproof sterile container.                             <ul style="list-style-type: none"> <li>○ <b>Collected a minimum of 10 ml when possible.</b></li> </ul> </li> <li>• When collection is completed, screw cap tightly on container and label according to Laboratory Specimen Labeling Policy.</li> </ul>
<b>Straight Catheter Pediatric Catheter</b> (Insertion of a catheter into the urethra)	<ul style="list-style-type: none"> <li>• Refer to hospital procedure for inserting a urine catheter.</li> <li>• This “in and out” procedure must be carried out with aseptic technique to avoid the risk of introducing microorganisms into the bladder.</li> <li>• Discard the initial 15 to 30 ml of urine and submit the next flow of urine for culture.</li> <li>• Aseptically dispense the urine collected directly into a disposable leakproof sterile container.                             <ul style="list-style-type: none"> <li>○ <b>Collected a minimum of 10 ml when possible.</b></li> </ul> </li> <li>• When collection is completed, screw cap tightly on container and label according to Laboratory Specimen Labeling Policy.</li> </ul>
<b>Suprapubic</b> (Needle inserted directly through the skin into the bladder to aspirate urine directly from the bladder)	<ul style="list-style-type: none"> <li>• Refer to hospital procedure for patient preparation and needle insertion into the bladder.</li> <li>• Aspirate the urine using a needle and syringe.</li> <li>• Aseptically dispense the urine collected directly into a disposable leakproof sterile container.                             <ul style="list-style-type: none"> <li>○ <b>Collected a minimum of 10 ml when possible.</b></li> </ul> </li> <li>• When collection is completed, screw cap tightly on container and label according to Laboratory Specimen Labeling Policy.</li> </ul>
<b>Ileal Conduit</b> (Double catheter inserted into a cleansed stoma to a depth beyond the fascial level)	<ul style="list-style-type: none"> <li>• Remove the external device.</li> <li>• Cleanse the stoma with 70% alcohol followed by iodine moving in concentric circles away from the center.                             <ul style="list-style-type: none"> <li>○ Alcohol and iodine only aid in “pushing” any bacteria away from the collection site.</li> </ul> </li> <li>• Insert a double catheter into the cleansed stoma, to a depth beyond the fascial level and collect the urine.</li> <li>• Aseptically dispense the urine collected directly into a disposable leakproof sterile container.                             <ul style="list-style-type: none"> <li>○ <b>Collected a minimum of 10 ml when possible.</b></li> </ul> </li> <li>• When collection is completed, screw cap tightly on container and label according to Laboratory Specimen Labeling Policy.</li> </ul>

- Place at least 3ml of urine into the transport tube to avoid an inhibiting or diluting effect on the microorganisms that may be present.

<b>Cystoscopy</b> (Bilateral urethral catheterization)	<ul style="list-style-type: none"> <li>• Refer to hospital procedure for patient preparation and collection procedure.</li> <li>• Aseptically dispense the urine collected directly into a disposable leakproof sterile container. <ul style="list-style-type: none"> <li>○ Collected a minimum of 10 ml when possible.</li> </ul> </li> <li>• When collection is completed, screw cap tightly on container and label according to Laboratory Specimen Labeling Policy.</li> </ul>
<b>Prostatic Massage</b> (Manual massage of the prostate)	
<b>Nephrostomy</b> (Surgical procedure leaving tubing directly in the kidney)	
<b>Ureterostomy</b> (Surgical procedure leaving tubing in abdomen from ureter)	
<b>Kidney</b> (Surgical removal of urine directly from kidney)	

### Rejection Criteria

- Reject a urine specimen > 2 hours old and no evidence of refrigeration.
- Reject 24-hr urine collection.
- Reject urine from the bag of a catheterized patient.
- Reject specimens that have leaked.
- Reject specimen requests for anaerobic culture...***accept suprapubic bladder aspirates or specimens surgically obtained from the kidney (during nephrostomy).***
- Reject Foley catheter tips.
- Reject any frozen to partially frozen specimen.
- For infants, a catheterized specimen should be collected.
  - Voided or bagged specimens are discouraged.
- Reject urine specimens collected by the same method within 48 hrs of receipt of the first specimen.
- Reject if specimen collection time and method of collection cannot be provided.

### References

1. Isenberg, Clinical Microbiology Procedures Handbook, 2<sup>nd</sup> Edition, Updated March 2007
- J. Michael Miller, A Guide to Specimen Management in Clinical Microbiology, 2<sup>nd</sup> Edition

## **MOLECULAR DIAGNOSTICS**

### **PATIENT INSTRUCTIONS**

#### **Glucose Tolerance Tests-Patient Instructions:**

NOTE: You must have an appointment for this test. Tests can be scheduled Tuesday-Friday in the morning. Please call 583-8440.

You are scheduled to have an oral glucose tolerance tests on so that your doctor can find out how well you body absorbs and uses glucose (sugar). You should not eat 12-14 hours prior to this test.

A blood sample will first be collected in the laboratory, and after this you will be given a glucose solution to drink. The examination lasts for approximately five hours, and several blood samples will be collected from you during this time.

During this test, you may not eat, drink, smoke, walk excessively or leave the laboratory area.

At the following times, you will need to have your blood drawn:

1 hour sample: \_\_\_\_\_

2 hour sample: \_\_\_\_\_

3 hour sample: \_\_\_\_\_

**\*\*IMPORTANT:** If the phlebotomist has not called for you when your blood draw is due, please tell the office staff immediately.

## PATIENT INSTRUCTIONS

### Instructions for collecting Hemocult Slides

All specimens submitted to the laboratory must contain the patient's first name, last name, date of birth, date the specimen was collected, and time the specimen was collected.

- Do not collect samples during, or until three days after your menstrual period, or while you have bleeding hemorrhoids or blood in your urine.
- Do not consume the following drugs, vitamins and foods:

Avoid 7 days prior to and during the test period:

Aspirin or other non-steroidal anti-inflammatory drugs.

Avoid 72 hours prior to and during the test period:

Vitamin C in excess of 250 mg per day  
(from all sources, dietary and supplemental)\*

Red meat (beef, lamb), including processed meats and liver

**Raw** fruits and vegetables

(especially melons, radishes, turnips and horseradish)

- Remove toilet bowl cleaners from toilet tank and flush twice before proceeding.
- Collect samples from three consecutive bowel movements or three bowel movements closely spaced in time.
- Label the slide with the patient name, date of birth and date of collection.
- Protect slides from heat, light and volatile chemical (e.g., iodine or bleach).
- Keep cover flap of slides closed when not in use.

For additional information please call 583-8750.

*\*Caution: some iron supplements contain quantities of Vitamin C, which exceed 250 mg per day.*

## PATIENT INSTRUCTIONS

### 24 Hour Urine Collection

**To the Patient:** Follow these instructions in collecting your 24-hour urine specimen.

All specimens submitted to the laboratory must contain the patient's first name, last name, date of birth, date the specimen was collected, and time the specimen was collected.

Void (urinate) into the collection container provided for use in the toilet and transfer the urine into the collection jug. Do **not** add anything but urine to the container and do **not** discard any liquid, tablets, or powder that may already be in the larger collection container. **These substances may cause burns if touched.** The collection container should be kept tightly closed and refrigerated (or kept in a cool place) throughout the collection period.

1. Upon rising in the morning, urinate into the toilet, emptying your bladder completely. **Do not** collect this sample. Note the exact time and date and print it on the container label.
2. Collect all urine voided for 24 hours after this time in the container provided. All urine passed during the 24-hour time period (day or night) must be saved. Urine passed during bowel movements must also be collected.
3. Refrigerate the collected urine between all voidings or keep it in a cool place.
4. At exactly the same time the following morning, void completely again (first time after awakening), and add this sample to the collection container. This completes your 24-hour collection.  
\*See Below if you have been given more than one 24 hour urine container.
5. Take the 24-hour specimen as well as your requisition to the physician's office or laboratory as soon as possible, maintaining the cool temperature in transit by placing the specimen in a portable cooler or insulated bag.

**For Patients needing more than one 24 hour urine collection container:**

Please begin your collection in container labelled #1 and repeat steps 1-5 for all collection containers.

## Instructions to Collect a Midstream Clean Catch Urine Sample

*Read each step carefully before beginning to clean and collect the urine sample.*

- *If you do not understand these directions or have any questions, please ask for help.*
  - *If the sample is not collected properly, the test results will not give the provider the correct information needed.*

### 1. Wash Hands.

- If assisting a patient, gloves are available for use.

### 2. Open the cleansing wipe packet.

### 3. Clean the urethra (urinary opening), using each wipe only once.

#### Females:

- Start with parting the skin (labia) around the vagina.
- Use the 1<sup>st</sup> wipe to clean one side of the skin (labia).
  - Wipe from front to back.
- Use the 2<sup>nd</sup> wipe to clean the other side of the skin (labia).
  - Wipe from front to back.
- Use the 3<sup>rd</sup> wipe to clean over the area where the urine comes out (urethra).
  - Wipe from front to back.

#### Circumcised Males:

- Clean the head of the penis with the wipe provided.

#### Uncircumcised Males

- Retract the skin (foreskin).
- Clean the head of the penis with the wipe provided.

### 4. Throw used wipes in the garbage; please do not throw wipes in the toilet.

### 5. Be careful when picking up the specimen cup.

- DO NOT put your fingers in the specimen cup.
- DO NOT touch inside the blue ring.

### 6. Hold the blue tab on the outside of the cup and begin urinating in the toilet.

### 7. While urinating, pass the cup into the stream of urine and hold the cup until it is about ½ full.

### 8. Remove cup from stream of urine and finish urinating into the toilet.

- Uncircumcised Males: be sure to replace the skin (foreskin).

### 9. Unscrew the blue ring and replace it with the white lid.

- DO NOT touch the inside of the white lid.

### 10. Throw the blue ring in the trash.

### 11. Wash hands and return the specimen cup to the staff person.

**SARATOGA HOSPITAL LABORATORY**  
**211 CHURCH STREET, SARATOGA SPRINGS, NEW YORK 12866**  
**CYTOLOGY DEPARTMENT**  
**(518) 583-8442**

**INSTRUCTIONS FOR COLLECTING SPUTUM FOR CYTOLOGY**

*Each patient is given a sputum cytology kit which includes:*

*...Specimen container with 50% ethyl alcohol fixative*

*...Cytology requisition*

*...Zip-lock bag*

**COLLECTION:**

- 1. Thoroughly cleanse mouth with water before collection.*
- 2. Cough deeply and expel sputum into specimen container.*
- 3. Close container and tighten cap.*
- 4. Write patient full name, date of birth, and date of collection on the specimen container.*
- 5. Complete the Cytology requisition.*
- 6. Place specimen container and requisition inside the zip-lock bag and seal.*
- 7. Deliver the specimen to Saratoga Hospital Laboratory.*

**Note:** **If a physician orders sputum for cytology X 3, repeat steps 1-5 for three consecutive mornings; be sure to write patient full name, date of birth and date of collection on each specimen container. Refrigerate each specimen and deliver to laboratory upon completion of three specimens.**

***Day(s) and time(s) test performed:***

*Monday – Friday 7:00 AM – 3:00 PM*

*Reference: The Art and Science of Cytopathology, Richard Mac DeMay, second edition, 2012.*

**SARATOGA HOSPITAL LABORATORY**  
**211 CHURCH STREET, SARATOGA SPRINGS, NY 12866**  
**CYTOLOGY DEPARTMENT**  
**(518) 583-8442**

**INSTRUCTIONS FOR COLLECTING VOIDED URINE FOR CYTOLOGIC EXAMINATION**

*Each patient is given a urine cytology kit which includes:*

- ..Specimen container with 50% ethyl alcohol fixative*
- ..Cytology requisition*
- ..Plastic cup*

**COLLECTION:**

- 1. A first morning voided specimen is not suitable.*
- 2. Have patient drink as much water as possible without causing any discomfort for 1 1/2 to 2 hours. During this period, the urine is discarded.*
- 3. At the end of this period, collect the next voided specimen in plastic cup (a minimum volume of 15-30 ml is required), then immediately pour urine specimen into container with 50% alcohol fixative. Cap the specimen container tightly and refrigerate.*
- 4. Label specimen container with patient full name, date of birth, and date of collection.*
- 5. If the foregoing procedure cannot be carried out, an alternative procedure would be to submit a freshly voided urine sample after the bladder has been emptied earlier.*
- 6. Each specimen must be accompanied by a completed Cytology requisition. It is important to include all pertinent clinical information on the request form.*
- 7. Place specimen container and requisition inside the zip-lock bag and seal.*
- 8. Deliver the specimen to Saratoga Hospital Laboratory.*
- 9. Please call Saratoga Hospital Cytology Laboratory for additional information (518) 583-8442.*

***NOTE: If a physician orders urine for cytology x 3, repeat steps 1-5 for three consecutive mornings; be sure to write patient full name, date of birth and date of collection on each specimen container. Refrigerate each specimen and deliver to laboratory upon completion of three specimens.***

*Reference: Koss's Cytology of the Urinary Tract with Histopathologic Correlations, Leopold G. Koss, Rana S. Hoda 2012.*

## **Review and Approval**

The Clinical Laboratory Service Directory has been reviewed and approved on the dates indicated. This manual is the property of Saratoga Hospital and may not be copied or disclosed without proper approval.

**Reviewed By:** Richard Vandell, Administrative Laboratory Director

**Final Approval:** Janne Rand, M.D., Laboratory Medical Director, Saratoga Hospital Laboratory  
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Last Reviewed/Revised Date: 2/1/2023