

North Bay Regional Health Centre
Laboratory Services
Specimen Collection and Handling Guide

Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Bile of Duodenal Aspirate	MIC	ASP	Sterile (universal) container	Room Temperature	Gram stain: 24 hours Final: 5 days	<ul style="list-style-type: none"> • Deliver to Laboratory “STAT” • This is an irretrievable sample. DO NOT send through pneumatic tube system.
Blood Culture	MIC	BLC	8-10 mL of blood in each Aerobic and Anaerobic blood culture bottles	Room Temperature	5 days	<ul style="list-style-type: none"> • Positive results are phoned immediately. • A preliminary report will be issued. • Only 2 sets of blood cultures will be processed in a 24 hour period. If endocarditis is suspected this information must be communicated to the laboratory (order procedure BLCE) and three specimens collected at least thirty minutes apart in a 24 hour period. • Staff must forewarn laboratory if infections caused by hazardous organisms are suspected (e.g., brucellosis, anthrax, tularemia) • Expected Time for Results: 5 days unless positive • Notes: 2 sets of blood cultures are recommended for routine culture but no more than 3 sets are generally required. Each set of blood cultures should be drawn from a separate site and inoculated into one aerobic and one anaerobic bottle.
			1-3 mL of blood in a Pediatric blood culture bottle <ul style="list-style-type: none"> • One collection is often all that can be obtained safely from neonates and infants. 			
Blood Culture (Endocarditis)	MIC	BLCE	8-10 mL of blood in each Aerobic and Anaerobic blood culture bottles	Room Temperature	21 days for Subacute Bacterial Endocarditis (SBE)	<ul style="list-style-type: none"> • Positive results are phoned immediately. • A preliminary report will be issued. • 3 sets of blood cultures at least thirty minutes apart. will be processed in a 24 hour period. • Staff must forewarn laboratory if infections caused by hazardous organisms are suspected (e.g., brucellosis, anthrax, tularemia) • Expected Time for Results: 21 days unless positive • Notes: Each set of blood cultures should be drawn from a separate site and inoculated into one aerobic and one anaerobic bottle.
			1-3 mL of blood in a Pediatric blood culture bottle			

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Bronchial (brushing/lavage/washings) Bronchoscopy Aspirates Lung Needle Aspirates	MIC	RESP	Sterile (universal) container	Refrigerated	Gram stain: 24 hours Final: 48-72 hours	<ul style="list-style-type: none"> • Forward all specimens to Cytology/Microbiology Lab • It is preferable to obtain a separate specimen for cytology that is fixed in toxic CytoRich Red fixative. If this is impossible, the specimen can be divided between departments. The specimen should then be brought to the Cytology department ASAP for fixation.
	Cytology Not available in OE.	Complete Cytology Requisition Form RHC2425	Collect into universal (80mL) container containing toxic CytoRich Red fixative fluid Include equal parts of CytoRich Red fixative and specimen	Room Temperature	24-48 hours	<ul style="list-style-type: none"> • Sample may be stored at room temperature however if there is an expected delay of delivery, place the sample in a biohazard bag and refrigerate. • Do NOT freeze.
Cerebrospinal Fluid (CSF)	MIC LAB	BFC CSF	CSF tubes from CSF collection tray (collected in order)	Room Temperature	Gram stain: 1 hour Final: 48-72 hours	<ul style="list-style-type: none"> • Collect sequentially in sterile tubes from lumbar tray, the first tube shall not be used for microbiological examination • Tube 1 – Chemistry (protein, glucose) • Tube 2 – Culture • Tube 3 – Cell count • Tube 4 – Viral studies (or any other additional tests) • Please notify Laboratory of intent to collect CSF. • This is an irretrievable sample. DO NOT send through pneumatic tube system. • Transport to the laboratory immediately by hand.
	Cytology Not available in OE.	Complete Cytology Requisition Form RHC2425	Collect in a sterile CSF tube with equal parts toxic CytoRich Red fixative fluid and specimen.	Room Temperature	24-48 hours	<ul style="list-style-type: none"> • Collection containers with fixative obtained from laboratory. • Indicate source of specimen on requisition. • NOT treated as STAT unless confirmed by a pathologist. • It is preferable to obtain a separate specimen for cytology that is fixed with equal parts toxic CytoRich Red fixative and sample. If this is impossible, the specimen can be divided between Cytology and Microbiology Labs. If this is the case, when the specimen is delivered to the lab, inform the lab technologist that the Cytology portion of the sample must be fixed with CytoRich Red fixative ASAP. • This is an irretrievable sample. DO NOT send through pneumatic tube system.

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Cervical Swab	MIC	GC	Endocervial swab in Amies transport media Vaginal swab only accepted from children (less than 12 years of age) or post-hysterectomy patients	Refrigerated	72 hours	<ul style="list-style-type: none"> Specimens examined for <i>N. gonorrhoeae</i> only. Clearly indicate source on swab. If a pap test is required, it is recommended it be collected before the swab. In cases of sexual abuse in peripubertal and prepubertal children both culture and nucleic acid amplification testing (NAAT) should be performed. Although culture is the preferred method for medico-legal purposes NAAT is more sensitive than culture. Please see PHL Specimen Collection Guide for full details.
Conjunctival/Eye Swab	MIC	EYE	Swab in Amies transport medium Swab swept over conjunctiva	Refrigerated	Gram stain: 24 hours Final: 48-72 hours	<ul style="list-style-type: none"> Susceptibility testing not routinely performed as <i>in vitro</i> results may not accurately reflect <i>in vivo</i> activity to topical antimicrobial agents.
Corneal Scraping	MIC	SW	Inoculated directly to media	Room Temperature	Gram stain: 24 hours Final: 5 days	<ul style="list-style-type: none"> Notify the Microbiology laboratory at ext. 2942 that the procedure is to be done.
Ear Swab	MIC	EAR	Swab in Amies transport medium Swab of external ear canal	Room Temperature	Gram stain: 24 hours Final: 48-72 hours	<ul style="list-style-type: none"> Tympanocentesis specimens indicated for microbiological diagnosis of otitis media.
Epiglottal Swab	MIC	WC	Swab in Amies transport medium	Refrigerated	Gram stain: 24 hours Final: 48-72 hours	
Group B Streptococcus Screening in Pregnancy	MIC	GB	Swab in Amies transport medium	Room Temperature	48-72 hours	<ul style="list-style-type: none"> Since up to 15% of isolates may be resistant to clindamycin, specifically request susceptibility testing for patients with penicillin allergy. Individual vaginal or rectal swabs are sub-optimal. A combined vaginal-rectal swab is preferred. Vaginal-rectal swab collected at 35–37 weeks gestation.
Intravascular Catheter Tip	MIC	CT	Sterile (universal) container	Refrigerated	48-72 hours	
Intraocular aspirate (anterior/aqueous chamber vitreous fluid)	MIC	ASP	Sterile (universal) container	Room Temperature	Gram stain: 24 hours Final: 5 days	<ul style="list-style-type: none"> This is an irretrievable sample. DO NOT send sample through pneumatic tube system.
Intra-uterine Device (IUD)	MIC	IUD	Sterile (universal) container	Room Temperature	Same Day	<ul style="list-style-type: none"> Send IUD not swab of IUD. IUD's are not cultured. A Gram smear only is performed for the detection of Actinomyces

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Mouth Swab	MIC	MS	Swab in Amies transport medium	Room Temperature	Same Day	<ul style="list-style-type: none"> • Culture is not performed. • Direct examination for fungus only. • Examination for Vincent's Angina will be performed on special request.
Nasal Swab	MIC	NOSE	Swab in Amies transport medium	Room Temperature	48 hours	<ul style="list-style-type: none"> • For the isolation of <i>Staphylococcus aureus</i> or MRSA only.
Antibiotic-Resistant Organisms (ARO) <ul style="list-style-type: none"> • MRSA • VRE 	MIC	VRE MRSA	Swab in Amies transport medium <ul style="list-style-type: none"> • Rectum or wounds or lesions 	Room Temperature	24-72 hours	<ul style="list-style-type: none"> • Susceptibility testing results not routinely provided for surveillance culture specimens.
Antibiotic-Resistant Organisms (ARO) <ul style="list-style-type: none"> • MRSA 	MIC	MRSA SCR	Swab in Amies transport medium <ul style="list-style-type: none"> • One swab for both nares 	Room Temperature	24-72 hours	<ul style="list-style-type: none"> • If rescreening for MRSA collect one swab for any source. • Susceptibility testing results not routinely provided for surveillance culture specimens.
Antibiotic-Resistant Organisms (ARO) <ul style="list-style-type: none"> • VRE 	MIC	VRE SCR	Swab in Amies transport medium <ul style="list-style-type: none"> • Rectum or wounds or lesions 	Room Temperature	24-72 hours	<ul style="list-style-type: none"> • If rescreening for VRE collect one swab for any source except the nares. • Susceptibility testing results not routinely provided for surveillance culture specimens.
Antibiotic-Resistant Organisms (ARO) <ul style="list-style-type: none"> • ESBL 	MIC	ESBL	Swab in Amies transport medium	Room Temperature	24-72 hours	<ul style="list-style-type: none"> • Susceptibility testing results not routinely provided for surveillance culture specimens.
Antibiotic-Resistant Organisms (ARO) <ul style="list-style-type: none"> • CRE 	MIC	CRE	Swab in Amies transport medium	Room Temperature	24-72 hours	<ul style="list-style-type: none"> • Susceptibility testing results not routinely provided for surveillance culture specimens.
Nasopharyngeal/Auger Suction	LAB	RSV	Place Nasopharyngeal flocked swab into viral transport media	18-24°C: up to 4 hours 2-8°C: up to 48 hours	24 hours	<ul style="list-style-type: none"> • Nasopharyngeal swabs are flexible flocked. • For auger suction samples add specimen to 0.5-3 mL of suitable transport media.
Prostatic Fluid, Seminal Fluid or Sperm	MIC	BFC	Sterile (universal) container	Body Temperature (37°C)	Gram stain: 24 hours Final: 5 days	<ul style="list-style-type: none"> • DO NOT send sample through pneumatic tube system.
Semen analysis (fertility)	MIC	SA	Sterile (universal) container	Body Temperature (37°C)	24 hours	<ul style="list-style-type: none"> • Keep the specimen at body temperature. • There is a 2 hour time limit from time of collection to laboratory processing. • Specimens will not be accepted for analysis after 14:00 hours. • DO NOT send sample through pneumatic tube system. • Patient collection instructions form RHC 270 (Semen Fluid Analysis).

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Semen analysis (post vasectomy)	MIC	PV	Sterile (universal) container	Body Temperature (37°C)	24 hours	<ul style="list-style-type: none"> • DO NOT send sample through pneumatic tube system. • Patient collection instructions form RHC 270 (Semen Fluid Analysis).
Post Vasovasotomy	MIC	GS	Glass Slides	Room Temperature	STAT: 1 hour	<ul style="list-style-type: none"> • The operating room should notify the Microbiology Lab (ext 2942) when specimens are being sent to ensure staff is available to process the slides immediately.
Sinus or Antral Lavage	MIC	RESP	Sterile (universal) container	Room Temperature	24 hours	
Skin/Soft Tissue	MIC	SW	<ul style="list-style-type: none"> • Aspirate exudates from abscess into sterile (universal) container or insert swab deep into lesion • Swab in Amies transport medium 	Room Temperature	Preliminary: 48 hours Final: 5 days	<ul style="list-style-type: none"> • Superficial swabs of doubtful value. • Remove surface exudates with 70% alcohol. • Processing is optimized when laboratory receives pertinent clinical information (i.e., wound site, history of animal bite). • Optimal isolation of anaerobic isolates requires submission of swab/specimen in anaerobic transportation media.
Sputum	MIC	RESP	Sterile (universal) 80 mL container or sputum trap for endotracheal samples	Refrigerated	Gram stain: 24 hours Final: 48-72 hours	<ul style="list-style-type: none"> • Mouth should be rinsed with water prior to specimen collection. • All specimens undergo microscopic evaluation to determine suitability for culture. • Sputum specimens must be received and processed within 24 hours of collection. • Only one specimen (deep cough) per patient per day will be cultured. • First/early morning sputum is preferred. • A series of 3 specimens is recommended. • Indicate if patient has Cystic Fibrosis. • If Cytology is also requested, it is preferable to obtain a separate specimen that is fixed in toxic CytoRich Red fixative. If this is impossible the specimen can be divided between both departments. Once this is done, the specimen should be brought to Cytology ASAP for fixation. • Patient collection instructions form RHC 2039 (Sputum for C&S).

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	Cytology not available in OE.	Complete Cytology Requisition Form RHC2425	Collect into universal (80 mL) container containing toxic CytoRich Red fixative fluid Include equal parts of CytoRich Red fixative and specimen	Room Temperature	24-48 hours	<ul style="list-style-type: none"> Collection containers with fixative obtained from laboratory. DO NOT send sample through pneumatic tube system. Patient collection instructions form RHC971 (Sputum for Cytology).
Body Fluids (Sterile)	MIC	BFC	Sterile (universal) container or 6 mL red top tube (Gram Stain and Culture) and 4 mL K ₂ EDTA lavender top tube (cell count)	Room Temperature	Gram stain: 24 hours Preliminary: 48 hours Final: 5 days	<ul style="list-style-type: none"> If there is a delay in transport, fluid may also be transferred to blood culture bottles using aseptic technique. These are irretrievable samples. DO NOT send through pneumatic tube system. Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well by inversion 10 times to avoid clots; clotted specimens cannot be processed. If Cytology is also requested, it is preferable to obtain a separate specimen that is fixed in toxic CytoRich Red fixative. If this is impossible the specimen can be aseptically aliquoted and brought to Cytology ASAP for fixation.
Body Fluids (Sterile)	Cytology not available in OE.	Complete Cytology Requisition Form RHC2425	Collect into universal (80 mL) container containing toxic CytoRich Red fixative fluid Include equal parts of CytoRich Red fixative and specimen	Room Temperature	24-48 hours	<ul style="list-style-type: none"> Collection containers with fixative obtained from laboratory. Indicate source of specimen on requisition and container. This is an irretrievable sample. DO NOT send through pneumatic tube system.
	LAB	Synovial Fluid: SYNF	6 mL Lithium Heparin dark green top tube (chemistry tests)	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well to avoid clots. Tests ordered under Synovial Fluid Profile: Glucose, Total Protein, Uric Acid and Crystal microscopy.
		Peritoneal Fluid: PERIFL	6 mL Lithium Heparin dark green top tube (chemistry tests)	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well to avoid clots. Tests ordered under Peritoneal Fluid Profile include: Total Protein and LDH.

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		Pleural Fluid: PLF	6 mL Lithium Heparin dark green top tube (chemistry tests)	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Fill to appropriate volume for correct specimen to anticoagulant ratio. • Mix well to avoid clots. • Tests ordered under Pleural Fluid Profile include: Total Protein and LDH.
Stool Culture	MIC	SC	Enteric Pathogen transport media	Refrigerated	48-72 hours	<ul style="list-style-type: none"> • Patient collection instructions form RHC 860 (Stool for C&S). Specimens cannot be accepted for processing for the following reasons: • Multiple specimens collected from the same in-patient the same day (only one specimen per patient per test per day is to be processed). • A maximum of 2 samples total per patient. • Stools from outpatients often arrive in batches and are usually a series taken from separate days. Accession and test the most recent specimen only. • Stool sample in Cary-Blair transport medium with yellow indicator showing failure of the buffering system to maintain a neutral pH. • Stool specimens not submitted in enteric transport medium, unless bowel washings from the OR which are set up immediately on day shift only.

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Clostridium difficile	MIC	CDIFF	Sterile (universal) container	2-8°C: up to 5 days	24-48 hours	<ul style="list-style-type: none"> • Patient collection instructions form RHC 975 (Stool for <i>Clostridium Difficile</i>). • A stool specimen is required for this test; rectal swabs cannot be processed. • Test will not be performed on formed stools. • Test will not be performed if a positive toxin result was detected within the last 7 days. • Test will not be performed on children less than 12 months of age. • Only a C. difficile assay will be performed; C. difficile culture is not performed. • Testing is done at 13:00 daily. Any specimens delivered after 13:00 will be processed the following day. • Send specimen immediately to the lab.
Throat Swab (pharyngitis)	MIC	TC	Swab in Amies transport medium collected from posterior pharynx and tonsillar area	Room Temperature	24-48 hours	<ul style="list-style-type: none"> • Since 14% of Group A Streptococcus pharyngeal isolates may be macrolide resistant, specifically request susceptibility testing for penicillin allergic patients. • Testing for <i>Neisseria gonorrhoeae</i> available upon request (refrigerate sample 4°C). Please indicate on requisition.
Rapid Strep	LAB	STREP	Double/twin swab in Amies transport medium collected from posterior pharynx and tonsillar area	Room Temperature	STAT: 15 minutes Culture: 24-48 hours	<ul style="list-style-type: none"> • A negative test will reflex a culture.
Tissue/ Biopsy/Implanted Medical Device	MIC	TIS	Sterile (universal) container	Room Temperature	Gram stain: 24 hours Final: 48 hours – preliminary 5 days - final	
Tympanocentesis Fluid	MIC	ASP	Sterile (universal) container	Refrigerated	Gram stain: 24 hours Final: 48 hours – preliminary 5 days - final	<ul style="list-style-type: none"> • This is an irretrievable sample. DO NOT send through pneumatic tube system.

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Urethra	MIC	US	Swab in Amies transport medium	Refrigerated	72 hours	<ul style="list-style-type: none"> Specimens examined for <i>N. gonorrhoeae</i> only.
Urine Culture	MIC	UC	Midstream urine after appropriate cleansing preparation. Collect into sterile (universal) container	Refrigerated	24-48 hours	<ul style="list-style-type: none"> Immediate refrigeration after specimen collection is essential for accurate results. Specimens from indwelling catheters should be obtained aseptically from the urine port. Do not collect urine specimens from a drainage bag. Only one sample per day will be processed. Urine specimens requesting C&S will be examined for <i>Candida</i>. If other fungi are suspected, they must be specified. Patient collection instructions form RHC 271 (Midstream Urine).
Vaginitis/Vaginosis	MIC	VAG	Swab in Amies transport medium collected from posterior vaginal vault	Room Temperature	24 hours	<ul style="list-style-type: none"> Laboratory diagnosis of bacterial vaginosis has been validated in premenopausal women only. Pyogenic bacteria, such as <i>Streptococcus pyogenes</i> may cause vulvitis/vaginitis in children; specimen will be processed accordingly. If toxic shock is suspected, specimens are examined for Group A strep and <i>S. aureus</i> (a comment noting toxic shock should be made on the requisition).
Wound Culture	MIC	WC	Swab in Amies transport medium	Room Temperature	Gram stain: 24 hours Final: 48-72 hours	<ul style="list-style-type: none"> Specimens should be obtained after appropriate debridement and cleansing of the wound, from the leading edge of the lesion, where pathogens should be present and colonizing organisms are less likely to occur.
Environmental (water samples)	MIC	ENV	Sterile (universal) container	Refrigerated	7 days	<ul style="list-style-type: none"> Specimens to be obtained by BJCI or Clinical Engineering.
Antibody ID	BBK	ABID WARM	6 mL pink top K ₂ EDTA tube	18-24°C: up to 8 hours 2-8°C: up to 7 days Less than -18°C: (plasma) up to 60 days for patients who have no history of transfusion	24 hours	<ul style="list-style-type: none"> Performed to determine the specificity (ies) of the antibody (ies) when a patient has a positive antibody screening test. The order for this test will be initiated by the Transfusion Medicine Laboratory. Patient's transfusion/pregnancy history is required. Under filled containers are not acceptable. Multiple or complex antibody ID may take from 3 days to 3 weeks if sent to reference laboratory.

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Antibody Titre	BBK	TITREWARM	6 mL pink top K ₂ EDTA tubes	18-24°C: up to 8 hours 2-8°C: up to 7 days Less than -18°C: (plasma) up to 1 year	24 hours	<ul style="list-style-type: none"> The antibody titre is a semiquantitative assay of the amount of antibody and is used primarily to monitor obstetrical patients who have produced blood group antibodies that can cause hemolytic disease of the newborn. Titration of clinically significant alloantibody is a reflex order by the Transfusion Medicine Laboratory for pregnant women only. Patient's transfusion/pregnancy history is required. Under filled containers are not acceptable.
Blood Group	BBK	ABO/RH	<p>Infants less than 4 months: 1 mL lavender top K₂EDTA tube</p> <p>Pediatric greater than 4 months & less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & less than 6 years: 4 mL lavender top K₂EDTA tube</p> <p>Children greater than 6 years and Adults: 6 mL pink top K₂EDTA tube</p>	18-24°C: up to 8 hours 2-8°C: up to 7 days	STAT: 1 hour Routine: 4 hours	
Cold Agglutinin Screen	BBK	ABID COLD	6 mL pink top K ₂ EDTA tube	Must be kept at 37°C from time of sample collection. Place sample in a container with warm water (37°C) from time of collection until delivered to Transfusion Laboratory	24 hours	<ul style="list-style-type: none"> If the cold agglutinin screen is positive, the physician may request the Cold Agglutinin Titre. Under filled containers are not acceptable. Separate plasma and red cells as soon as possible.

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Cold Agglutinin Titre	BBK	TITRECOLD	2 x 6 mL pink top K ₂ EDTA tubes	Must be kept at 37°C from time of sample collection. Place sample in a container with warm water (37°C) from time of collection until delivered to Transfusion Laboratory	24 hours	<ul style="list-style-type: none"> • Only done on request of physician if the cold agglutinin screen is positive. • The titre of the cold autoantibody normally found in adult serum can increase following viral or bacterial infections or with cold autoimmune hemolytic anemia/cold hemagglutinin disease. • Under filled containers are not acceptable. • Separate plasma and red cells as soon as possible.
DAT (Direct Coombs Test)	BBK	DAT	<p>Infants less than 4 months: 1 mL lavender top K₂EDTA tube</p> <p>Pediatric greater than 4 months & less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & less than 6 years: 4 mL lavender top K₂EDTA tube</p> <p>Children greater than 6 years and Adults: 6 mL pink top K₂EDTA tube</p>	18-24°C: up to 8 hours 2-8°C: up to 7 days	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Usually ordered only when special hematological work-up is being done.
Cord Blood Testing	BBK	ABO/RH COR	6 mL pink top K ₂ EDTA tube	18-24°C: up to 8 hours 2-8°C: up to 7 days	24 hours	<ul style="list-style-type: none"> • Need a history on the maternal ABO/Rh/Antibody Screen. • Collect the specimen using syringe or Vacutainer. • Do not squeeze the cord. • Specimen must be labeled with infant's identification, not mother's. • Cord blood specimens are tested when the mother is Rh negative, if mother has clinically significant antibodies, or on physician's request. • Alternatively a 4 mL lavender top K₂EDTA tube may be used.

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Fetal Maternal Hemorrhage Screen	BBK	FMH	4 mL lavender top K ₂ EDTA tube	Room Temperature Collect 1 hour post delivery and within 24 hours. Samples must be processed within 4 hours of collection.	24 hours	<ul style="list-style-type: none"> • Samples are routinely drawn on all Rh negative mothers post-delivery, however the test is only performed if the baby is Rh positive. • The test is used to screen for Rh positive RBC's in a Rh negative mother's circulation. If positive, a Kleihauer is reflexed to quantitate the volume of cells that contain fetal hemoglobin in a blood specimen. This is usually done to determine the volume of fetal-maternal hemorrhage during pregnancy or at the time of delivery. • The test may also be done to detect fetal trauma antepartum. • Consult the Transfusion Medicine Laboratory for assistance with any Interpretation if clarification is necessary. • If there is a delay in testing specimens may be stored at 1-10°C for no longer than 48 hours. • Do not use hemolyzed specimens for this test.
Group and Crossmatch	BBK	PC	<p>Infants less than 4 months: 1 mL lavender top K₂EDTA tube</p> <p>Pediatric greater than 4 months & less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & less than 6 years: 4 mL lavender top K₂EDTA tube</p> <p>Children greater than 6 years and Adults: 6 mL pink top K₂EDTA tube</p>	18-24°C: up to 8 hours 2-8°C: up to 7 days	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Patient's transfusion/pregnancy history required. • Blood group and antibody screening test will be performed automatically. • If the antibody screening test is <i>negative</i>, blood can usually be made available in 45 minutes from the time the order is received. • If the antibody screening test is <i>positive</i>, the specificity of the antibody(ies) is routinely investigated before issue of blood products (see antibody investigation). • Each blood sample for compatibility testing shall be collected within 96 hours prior to the scheduled transfusion if the recipient: <ol style="list-style-type: none"> a) has been transfused with a blood component containing red cells within the previous three months b) has been pregnant within the previous three months c) the transfusion history is questionable or unavailable

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Screen and Hold	BBK	SH	<p>Infants less than 4 months: 1 mL lavender top K₂EDTA tube</p> <p>Pediatric greater than 4 months & less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & less than 6 years: 4 mL lavender top K₂EDTA tube</p> <p>Children greater than 6 years and Adults: 6 mL pink top K₂EDTA tube</p>	18-24°C: up to 8 hours 2-8°C: up to 7 days	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Patient's transfusion/pregnancy history required. • Each blood sample for compatibility testing shall be collected within 96 hours prior to the scheduled transfusion if the recipient: <ol style="list-style-type: none"> a) has been transfused with a blood component containing red cells within the previous three months b) has been pregnant within the previous three months c) the transfusion history is questionable or unavailable

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Transfusion Reaction	BBK	TRRX	<p>Infants less than 4 months: 1 mL lavender top K₂EDTA tube</p> <p>Pediatric greater than 4 months & less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & less than 6 years: 4 mL lavender top K₂EDTA tube</p> <p>Children greater than 6 years and Adults: 6 mL pink top K₂EDTA tube</p> <p>Urine: universal (80mL) container</p>	18-24°C: up to 8 hours 2-8°C: up to 7 days	24 hours	<ul style="list-style-type: none"> • Pre & post transfusion- Temperature, Blood Pressure, Pulse and other symptoms of the patient are required. • Signs and symptoms of the reaction should be recorded on the Notification of Transfusion Reaction Form RHC 556. • Further blood transfusion should not occur until investigation is complete.
Immunofixation (IFE)	LAB	IFE	5 mL gold top (SST) tube	2-8°C: up to one week Less than -18°C: up to one month	Up to 14 Days	<ul style="list-style-type: none"> • Protein Electrophoresis is always performed first. The PE result will determine if an IFE is indicated. • IFE is performed when an abnormal globulin band is detected on protein electrophoresis. • IFE is not performed if the patient had a band identified previously. • Alternatively a 6 mL red top (serum) tube may be used.
Acetaminophen	LAB	ACET	6 mL red top (serum) tube	2-28°C: up to 2 weeks Less than -18°C: up to 45 days	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Acetaminophen specimens should not be drawn earlier than four hours after ingestion. If the time of ingestion is not known, two or more blood samples taken at two three-hour intervals may be used to estimate acetaminophen half-life and assess toxicity. • Hemolyzed samples are not acceptable. Icteric samples are known to cause a positive bias.

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Acetaminophen		DS	6 mL red top (serum) tube	18-28° C: up to 2 days 2-8° C: up to 7 days Less than -18°C: up to 1 month	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Drug Screen Profile Includes: Salicylate, Acetaminophen and Alcohol (Ethanol).
Albumin	LAB	ALB LFT	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 7 days 2-8°C up: to 1 month Less than -18°C: indefinitely	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Hemolyzed samples will not be processed. • Of all serum proteins, albumin is present in the highest concentration. • Alternately a 5 mL gold top (SST) tube may be used.
ALT (Alanine Aminotransferase)	LAB	ALT	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 3 days 2-8°C: up to 1 week	Routine: 4 hours	<ul style="list-style-type: none"> • Hemolyzed samples will not be processed. • Alanine aminotransferase is present in high activity in liver, skeletal muscle, heart and kidney. • Alternately a 5 mL gold top (SST) tube may be used.
Alcohol	LAB	ETH	6 mL red top (serum) tube	18-28° C: up to 2 days 2-8° C: up to 2 weeks Less than -18°C: up to one month	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • This method may give positive results for ethanol in the absence of ethanol if other alcohols are present in the sample. • Do not cleanse the sample draw site with alcohol, chlorhexadine or other volatile disinfectants. Use only aqueous disinfectants such as iodine. • Alternately a 4.5 mL mint green (PST) Gel and Lithium Heparin tube may be used. • Alternately a 5 mL gold top (SST) tube may be used.
		DS	6 mL red top (serum) tube	18-28° C: up to 2 days 2-8° C: up to 7 days Less than -18°C: up to 1 month	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Drug Screen Profile Includes: Salicylate, Acetaminophen and Alcohol (Ethanol).
ALP (Alkaline Phosphatase)	LAB	ALP LFT	4.5 mL mint green (PST) Gel and Lithium Heparin tube	2-28°C: up to 4 days 2-8°C : up to 4 days Less than -18°C: up to 4 days	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Hemolyzed specimens will not be processed. • Alkaline phosphatase is present mainly in bone, liver, kidney, intestine, placenta and lung. • Alternately a 5 mL gold top (SST) tube may be used.
Ammonia	LAB	NH3 AMM	4 mL lavender top K ₂ EDTA tube	18-28°C: not recommended 2-8°C: up to 3 hours Less than -18°C: up to 24 hours	STAT: 1 hour	<ul style="list-style-type: none"> • Keep on ice until analysis. • Centrifuge specimens and remove plasma from the cellular material with 15 minutes of collection. • Hemolyzed samples cannot be processed. • Glucose at concentrations of 33.3 mmol/L can cause a decrease of 8 to 40 µmol/L in ammonia concentration.
AST (Aspartate Aminotransferase)	LAB	AST LFT	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 3 days 2-8°C: up to 7 days Less than -18°C: up to 3 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Hemolyzed samples cannot be processed. • Alternately a 5 mL gold top (SST) tube may be used.

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β-HCG (Quantitative)	LAB	HCGQUANT	5 mL gold top (SST) tube	2-8°C: up to 5 days Less than -20°C: up to 1 month	STAT: 1 hour	<ul style="list-style-type: none"> β-HCG levels less than 25 IU/L do not exclude pregnancy. A further sample should be tested after 48 hours if pregnancy is suspected. β-HCG results greater than or equal to 25 IU/L are considered positive.
Bicarbonate	LAB	CO2 BICARB LYTES	4.5 mL mint green (PST) Gel and Lithium Heparin tube	Tightly capped 18-28°C: up to 24 hours 2-8°C: up to 3 days Less than -18°C: up to 1 month	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples cannot be processed. Alternately a 5 mL gold top (SST) tube may be used.
Bilirubin Unconjugated and Conjugated	LAB	Adult: BILI Neonates (1-30 days): BILIN LFT	Infants less than 4 months: 1 mL gold top (SST) tube Pediatric to Adult: 4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 4 hours 2-8°C: up to 7 days Less than -18°C: up to 6 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples will not be processed. Protect specimens from light by wrapping in foil if testing is delayed. Alternately a 5 mL gold top (SST) tube may be used.
BUN (Blood Urea Nitrogen)	LAB	BUN UREA	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 1 day 2-8°C: up to 5 days Less than -18°C: up to 6 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples will not be processed. Alternately a 5 mL gold top (SST) tube may be used.
		Urine: 24 hour UREA24U Random UREARU	24 hour urine container or Random: universal (80mL) container	Refrigerated	Routine: 4 hours	<ul style="list-style-type: none"> Do NOT add preservative. Patient collection instructions form RHC954 (24 Hour Urine).
CRP (C-Reactive Protein)	LAB	CRP	5 mL gold top (SST) tube	18-28°C: up to 4 hours 2-8°C: up to 3 days Less than -18°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> Please note this is regular CRP and not hsCRP.
Calcium	LAB	CA	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 4 hours 2-8°C: up to 22 days Less than -18°C: up to 1 year	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Blood from patients receiving Hypaque radiographic contrast agent cannot be used. Alternately a 5 mL gold top (SST) tube may be used.
		Urine: 24 hour CA24U Random CARU	24 hour urine container or Random: universal (80mL) container	Refrigerated	Routine: 4 hours	<ul style="list-style-type: none"> Acidified urine specimens should have a pH range of 1.5 to 5.0. Samples with pH below 1.5 may result in a negative bias. Patient collection instructions form RHC954 (24 Hour Urine).

Note: Unless otherwise indicated specimens are peripheral blood and urine ONLY, intraosseous blood samples are not acceptable for laboratory examination.

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Carbamazepine (Tegretol)	LAB	CARB TEG	6 mL red top (Serum) tube	2-28°C: up to 5 days Less than -18°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> Sample is not to be collected using gold top (SST) tube or mint green (PST) tube. Sample should be drawn just before the next dose for trough values into a red top tube or a lithium heparin tube. Samples greater than 85 µmol/L must NOT be diluted and will be referred out for analysis by alternate method if requested by attending physician. Centrifuge specimens and remove the serum from the cellular material within 4 hours of collection. Alternately a 6 mL dark green top Lithium Heparin tube may be used.
Carboxyhemoglobin	LAB	VBGCOHB- Venous Blood Gases + CO	Venous: 6 mL dark green top Lithium Heparin tube	Room Temperature: up to 24 hours	STAT: 30 minutes	<ul style="list-style-type: none"> Do not open tube. Sample should be tested within 24 hours of collection. Sample <i>may</i> be transported by pneumatic tube as the pO₂ is not reportable.
		ABGCOHB- Arterial Blood Gases + CO	Arterial: Heparin Syringe	Room Temperature: up to 24 hours	STAT: 30 minutes	<ul style="list-style-type: none"> Do not open tube. Sample should be tested within 24 hours of collection. Arterial blood gases must be tested within 30 minutes of collection. Do NOT send sample through pneumatic tube system.
Chloride	LAB	LYTES	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 7 days 2-8°C: up to 4 weeks Less than -18°C: indefinitely	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Avoid drawing specimen from an arm receiving an intravenous infusion. If necessary stop IV for 2 minutes and collect a 6 mL red top discard tube prior to the sample. Chloride not available on urine samples. Alternately a 5 mL gold top (SST) tube may be used.
Cholesterol	LAB	CHOL HDL	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: not recommended 2-8°C: up to 3 days Less than -18°C: up to 3 weeks	Routine: 4 hours	<ul style="list-style-type: none"> Patient should be fasting for 12 hours. Alternately a 5 mL gold top (SST) tube may be used.
CK (Creatine Kinase)	LAB	CK CPK	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28 °C: up to 4 hours 2-8°C: up to 5 days Less than -18°C: up to 1 month	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples will not be processed.
Creatinine	LAB	CRS CREAT	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 5 days 2-8°C: up to 30 days Less than -18°C: indefinitely	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> eGFR calculation reported for all creatinine.

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Digoxin	LAB	DIG	6 mL red top (Serum) tube only	18-28°C: up to 8 hours 2-8°C: up to 1 week Less than -18°C: up to 4 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Samples should be drawn at least six to eight hours after the last dose. • Centrifuge specimens and remove the serum or plasma from the cellular material within 4 hours of collection.
Ferritin	LAB	FERRI	5 mL gold top (SST) tube	2-8°C: up to 5 days Less than -20°C: up to 1 month	Routine: 24 hours	
Folate	LAB	FOL	5 mL gold top (SST) tube	2-8°C: up to 7 days Less than -20°C: up to 1 month	Routine: 24 hours	<ul style="list-style-type: none"> • Hemolyzed specimens cannot be processed.
Free T4	LAB	FT4 T4F	5 mL gold top (SST) tube	2-8°C: up to 7 days Less than -20°C: up to 1 month	Routine: 24 hours	
FSH	LAB	FSH	5 mL gold top (SST) tube	2-8°C: up to 6 days Less than -20°C: up to 1 month	Routine: 24 hours	
GGT (Gamma Glutamyltransferase)	LAB	GGT	4.5 mL mint green (PST) Gel and Lithium Heparin tube	2-28°C: up to 7 days Less than -18°C: up to 2 months	Routine: 4 hours	<ul style="list-style-type: none"> • Alternately a 5 mL gold top (SST) tube may be used.
Gentamicin	LAB	GENTT – Trough GENTP – Peak	6 mL red top (Serum) tube	18-28°C: up to 2 hours 2-8°C: up to 7 days Less than -18°C: up to 14 days	Routine: 4 hours	<ul style="list-style-type: none"> • For patients receiving gentamicin via conventional dosing methods peak and trough drug monitoring should begin after a steady state is achieved (usually after 3-4 doses). Samples for peak concentrations should be collected 60-90 minutes after intravenous infusion. Samples for trough concentrations should be collected within 30 minutes of the next dose. • Centrifuge specimens and remove the serum from the cellular material within one hour of collection. Store refrigerated or frozen until assayed. • Alternatively a 4.5 mL mint green top (PST) Gel and Lithium Heparin tube may be used.
Glucose	LAB	Random Glucose: GLUR	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 24 hours 2-8°C: up to 7 days Less than -18°C: up to 1 year	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Alternately a 5 mL gold top (SST) tube may be used.
		Fasting Glucose: GLUF	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 24 hours 2-8°C: up to 7 days Less than -18°C: up to 1 year	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Patient should have nothing to eat or drink for 8 hours prior to collection of specimen for fasting glucose. • Alternately a 5 mL gold top (SST) tube may be used.

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Glucose		Synovial Fluid: SYN F	6 mL Lithium Heparin dark green top tube	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Fill to appropriate volume for correct specimen to anticoagulant ratio. • Mix well to avoid clots. • Tests ordered under Synovial Fluid Profile: Glucose, Total Protein, Uric Acid and Crystal microscopy. • This is an irretrievable sample. DO NOT send sample through pneumatic tube system.
HBsAg	LAB	HBSAG	5 mL gold top (SST) tube	2-8°C: up to 5 days Less than -20°C: up to 1 month	STAT: 2 hours Routine: 24 hours	<ul style="list-style-type: none"> • All samples testing as reactive or positive for HBsAg will be sent to PHL for confirmatory testing.
HDL Cholesterol	LAB	HDL	4.5 mL mint green (PST) Gel and Lithium Heparin tube	2-8°C: up to 3 days Less than -20°C: up to 3 weeks	Routine: 4 hours	<ul style="list-style-type: none"> • A 12 to 14 hour fast is required. • Alternately a 5 mL gold top (SST) tube may be used. • HDL Profile Includes: Cholesterol, HDL Cholesterol, LDL Cholesterol and Triglycerides.
Hemoglobin A1C	LAB	A1C HGBA1C	4 mL lavender top K ₂ EDTA tube	2-28°C: up to 3 days	Routine: 4 hours	<ul style="list-style-type: none"> • Any cause of shortened red cell survival (hemolytic anemia or other hemolytic diseases, pregnancy, recent significant blood loss) will reduce exposure of red cells to glucose with a consequent decrease in %A1C values. • Caution should be used when interpreting the %A1C results from patients with chronic blood loss and consequent variable erythrocyte lifespan. • Iron deficiency anemia can lead to an increased erythrocyte mass, thus altering the average age of erythrocytes.
Iron	LAB	FE IRON	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 4 days 2-8°C: up to 7 days Less than -18°C: up to 3 weeks	Routine: 4 hours	<ul style="list-style-type: none"> • Hemolyzed specimens will not be processed because of the high concentration of iron in hemoglobin. • Alternately a 5 mL gold top (SST) tube may be used.
Lactate (Lactic Acid)	LAB	LACT	6 mL grey top Sodium Fluoride Potassium Oxalate tube	18-28°C: up to 8 hours 2-8°C: up to 14 days Less than -18°C: up to 1 month	STAT: 1 hour	<ul style="list-style-type: none"> • Venous specimens should be obtained without the use of a tourniquet. The patient should avoid any exercise of the arm or hand before or during collection of the specimen. • Fluoride oxalate specimens must be collected in tubes that are at least half full. Smaller volumes can result in a negative bias. • Centrifuge specimens and remove the plasma from the cellular material within 15 minutes of collection. • Samples must be collected and placed on ice.

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LDH (Lactate Dehydrogenase)	LAB	LDH	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 2 days	Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples cannot be processed. Alternately a 5 mL gold top (SST) tube may be used.
		Peritoneal Fluid: LDHPERI	6 mL Lithium Heparin dark green top tube	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio Mix well to avoid clots. Do NOT send sample through pneumatic tube system.
		Pleural Fluid: PLF	6 mL Lithium Heparin dark green top tube	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well to avoid clots. Do NOT send sample through pneumatic tube system.
LH (Leutinizing Hormone)	LAB	LH	5 mL gold top (SST) tube	2-8°C: up to 5 days Less than -20°C: up to 1 month	Routine: 4 hours	
Lipase	LAB	LIPA	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 7 days 2-8°C : up to 3 weeks Less than -18°C: up to 5 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Alternately a 5 mL gold top (SST) tube may be used. Do not use grossly lipemic samples they may show a large negative bias.
Lithium	LAB	LI	6 mL red top (Serum) tube	18-28°C: up to 8 hours 2-8°C: up to 24 hours Less than -18°C: up to 6 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Samples are drawn approximately 12 hours after the last dose of lithium has been taken.
Magnesium	LAB	Serum: MG	4.5 mL mint green (PST) Gel and Lithium Heparin tube	2-28°C: up to 1 week Less than -18°C: up to 1 month	Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed specimens can cause falsely elevated results due to intracellular magnesium levels. Alternately a 5 mL gold top (SST) tube may be used.
		Urine: 24 hour MG24U Random MGRU	24 hour urine container or Random: universal (80mL) container	2-28°C: up to 1 week Less than -18°C: up to 1 month	Routine: 4 hours	<ol style="list-style-type: none"> Thoroughly mix the urine specimen. Pipette a 5 mL aliquot of urine into a separate tube. Drop-wise, add 6 N HCl, mixing thoroughly after the addition of each drop. Check the pH frequently to obtain a pH between 3 and 4. If pH is less than 3.0, discard and begin with another 5 mL aliquot. <ul style="list-style-type: none"> Patient collection instructions form RHC954 (24 Hour Urine).

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Parathyroid Hormone	LAB	PTH	4 mL lavender top K ₂ EDTA tube	15-30°C: up to 8 hours 2-8°C: up to 2 days Less than -20°C: up to 4 weeks	Routine: 24 hours	<ul style="list-style-type: none"> Alternately a 5 mL gold top (SST) tube may be used. Do not use hemolyzed specimens.
Phenytoin (Dilantin)	LAB	DIL PHEN	6 mL red top (serum) tube	18-28°C: up to 8 hours 2-8°C: up to 1 week Less than -18°C: up to 3 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Specimens should be drawn just before the next dose for trough values. If toxicity is suspected, specimens may be drawn at any time. Hemolyzed samples will not be processed. Do NOT collect using a gold top (SST) Vacutainer tube.
Phosphorus	LAB	Serum: PHOS PO ₄	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 3 days 2-8°C: up to 7 days Less than -18°C: up to 2 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples cannot be processed. Alternately a 5 mL gold top (SST) tube may be used.
		Urine: 24 hour PO424U Random PO4RU	24 hour urine container or Random: universal (80mL) container	18-28°C: up to 6 hours 2-8°C: up to 2 days Less than -18°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> Add 20 mL of 6 N HCl to the container prior to collection of the urine (use 1 mL of 6 N HCl for a random specimen). Final pH must be between 1.5 to 5.0 Patient collection instructions form RHC954 (24 Hour Urine).
Potassium	LAB	Serum: LYTES	4.5 mL mint green (PST) Gel and Lithium Heparin tube	2-28°C: up to 6 weeks Less than -18°C: up to 1 year	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples cannot be processed. Alternately a 5 mL gold top (SST) tube may be used. Avoid drawing specimen from an arm receiving an intravenous infusion. If necessary stop IV for 2 minutes and collect a 6 mL red top discard tube prior to the sample.
		Urine: 24 hour K24U Random KRU	24 hour urine container or Random: universal (80mL) container	18-28°C: up to 4 days 2-8°C: up to 7 days Less than -18°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> Do NOT add preservative. Patient collection instructions form RHC954 (24 Hour Urine).
Prolactin	LAB	PROL	5 mL gold top (SST) tube	2-8°C: up to 5 days Less than -20°C: up to 1 month	Routine: 24 hours	<ul style="list-style-type: none"> Macroprolactin has been known to interfere with this assay, causing elevated prolactin results. Therefore, elevated prolactin results will be investigated for macroprolactin.

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Protein - CSF	LAB	CSF	CSF tubes from CSF collection tray (collected in order)	18-28°C: up to 4 hours 2-8°C: up to 3 days Less than -18°C: up to 6 months Less than -70°C: indefinitely	STAT: 1 hour	<ul style="list-style-type: none"> Hemolysed specimens should not be used. Hemoglobin is a protein and its presence in cerebrospinal fluid will result in an increase in measured protein. Samples greater than 1 mL should be centrifuged prior to testing. This is an irretrievable sample. DO NOT send through pneumatic tube system.
Protein - Total	LAB	TP PROTT	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 4 hours 2-8°C: up to 3 days Less than -18°C: up to 6 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Alternately a 5 mL gold top (SST) tube may be used.
		Peritoneal Fluid: PROTPERI	6 mL Lithium Heparin dark green top tube	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well to avoid clots. This is an irretrievable sample. DO NOT send sample through pneumatic tube system.
		Pleural Fluid: PLF	6 mL Lithium Heparin dark green top tube	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well to avoid clots. This is an irretrievable sample. DO NOT send sample through pneumatic tube system.
		Synovial Fluid: SYNF	6 mL Lithium Heparin dark green top tube	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well to avoid clots. Tests ordered under Synovial Fluid Profile: Glucose, Total Protein, Uric Acid and Crystal microscopy. This is an irretrievable sample. DO NOT send sample through pneumatic tube system.
		Urine: 24 hour PROT24U Random PROTRU	24 hour urine container or Random: universal (80mL) container	18-28°C: up to 4 hours 2-8°C: up to 3 days	Routine: 4 hours	<ul style="list-style-type: none"> Do NOT add preservative. Patient collection instructions form RHC954 (24 Hour Urine).
PSA	LAB	PSA	5 mL gold top (SST) tube	2-8°C: up to 7 days Less than -20°C: up to 1 month	Routine: 24 hours	

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Salicylate	LAB	SAL ASA	6 mL red top (serum) tube	2-28°C: up to 7 days Less than -18°C: up to 6 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Centrifuge specimens and remove the serum from the cellular material within 4 hours of collection. Alternately a 5 mL gold top (SST) tube may be used.
		DS	6 mL red top (serum) tube	18-28° C: up to 2 days 2-8° C: up to 7 days Less than -18°C: up to 1 month	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Drug Screen Profile Includes: Salicylate, Acetaminophen and Alcohol (Ethanol).
Sodium	LAB	LYTES	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 4 days 2-8°C: up to 1 week Less than -18°C: up to 6 months	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Avoid drawing specimen from an arm receiving an intravenous infusion. If necessary stop IV for 2 minutes and collect a 6 mL red top discard tube prior to the sample. Alternately a 5 mL gold top (SST) tube may be used.
		Urine: 24 hour NA24U Random NARU	24 hour urine container or Random: universal (80mL) container	18-28°C: up to 24 hours 2-8°C: up to 1 week Less than -18°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> Do NOT add preservative. Patient collection instructions form RHC954 (24 Hour Urine).
Theophylline	LAB	THEO	4.5 mL mint green (PST) Gel and Lithium Heparin tube	2-28°C: up to 7 days Less than -18°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> Salicylate concentrations at levels greater than 2.16 mmol/L have been known to cause a positive bias in theophylline results. Therefore, a salicylate level will be provided with all theophylline results. Uremic specimens have shown a positive bias in the therapeutic range for theophylline. Alternately a 5 mL gold top (SST) tube may be used.
Transferrin	LAB	TRANS IRON	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C : up to 1 day 2-8°C: up to 3 days Less than -20°C: indefinitely	Routine: 4 hours	<ul style="list-style-type: none"> Alternately a 5 mL gold top (SST) tube may be used. An iron is automatically provided with this test.
Triglycerides	LAB	TRIG	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 3 days 2-8°C: up to 7 days Less than -18°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> A 12 to 14 hour fast is required. Alternately a 5 mL gold top (SST) tube may be used.
Troponin I	LAB	TNI	4.5 mL mint green (PST) Gel and Lithium Heparin tube	2-8°C: up to 7 days Less than -20°C: up to 1 month	STAT: 1 hour	<ul style="list-style-type: none"> Avoid using hemolyzed samples as results can be affected. Alternately a 5 mL gold top (SST) tube may be used.
TSH	LAB	TSH	5 mL gold top (SST) tube	2-8°C: up to 7 days Less than -20°C: up to 1 month	Routine: 24 hours	<ul style="list-style-type: none"> Results falling below or above the reference range will be tested for FT4.

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Uric Acid	LAB	URAC	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 3 days 2-8°C: up to 5 days Less than -20°C: up to 6 months	Routine: 4 hours	<ul style="list-style-type: none"> Alternately a 5 mL gold top (SST) tube may be used.
		Synovial Fluid: URACJF	6 mL Lithium Heparin dark green top tube	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Fill to appropriate volume for correct specimen to anticoagulant ratio. Mix well to avoid clots.
		Urine: 24 hour URAC24U Random URACRU	24 hour urine container or Random: universal (80mL) container	18-28°C: up to 3 days	Routine: 4 hours	<ul style="list-style-type: none"> Adjust pH between 8.5 to 10.0 Patient collection instructions form RHC954 (24 Hour Urine).
Valproic Acid	LAB	VAL	6 mL red top (Serum) tube	18-28°C: up to 1 day 2-8°C: up to 14 days Less than -20°C: up to 14 days	Routine: 4 hours	<ul style="list-style-type: none"> Valproic acid monitoring is most appropriate when the blood sample is drawn after steady-state conditions have been reached. Blood samples should be drawn immediately before the next dose.
Vancomycin	LAB	VANCT	6 mL red top (Serum) tube	18-28°C: up to 2 hours 2-8°C: up to 3 days Less than -20°C: up to 14 days	Routine: 4 hours	<ul style="list-style-type: none"> Hemolyzed samples can cause results to be falsely decreased. Only trough samples are reported. Peak values are not clinically indicated for Vancomycin. Trough concentrations should be monitored after steady state is achieved and within 30 minutes of the next dose.
Vitamin B12	LAB	B12	5 mL gold top (SST) tube	2-8°C: up to 5 days Less than -20°C: up to 1 month	Routine: 24 hours	
Urinalysis	LAB	UA	Sterile (universal) 80 mL container	Room Temperature: up to 2 hours 2-8°C: up to 24 hours	STAT: 1 hour Routine: 2 hours	<ul style="list-style-type: none"> Microscopic analysis will be reflexed by Meditech based on parameters of the chemical analysis. On occasion, a physician may request microscopic investigation for casts or crystals even if a microscopic analysis is not reflexed. Samples will not be processed if greater than 24 hours since time of collection. Patient collection instructions form RHC 271 (Midstream Urine).
Arterial Blood Gases	LAB	ABG	Heparinized Syringe	Room Temperature: up to 30 minutes	30 minutes	<ul style="list-style-type: none"> Send to the laboratory immediately after collection, sample must be tested within 30 minutes. Do NOT place sample on ice. Do NOT send sample through pneumatic tube system.
		Arterial Blood Gases with Carboxyhemoglobin: ABGCOHB				

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Venous Blood Gases	LAB	VBG	6 mL Lithium Heparin dark green top tube	Room Temperature: up to 30 minutes	30 minutes	<ul style="list-style-type: none"> Send to the laboratory immediately after collection, sample must be tested within 30 minutes. Do NOT place sample on ice. Samples <i>may</i> be transported by pneumatic tube as the pO₂ is not reportable.
		Venous Blood Gases with Carboxyhemoglobin: VBGCOHB				
Mixed Venous Gas	LAB	SCV O ₂	6 mL Lithium Heparin dark green top tube	Room Temperature: up to 30 minutes	30 minutes	<ul style="list-style-type: none"> Send to the laboratory immediately after collection, sample must be tested within 30 minutes. Do NOT place sample on ice. Do NOT send sample through pneumatic tube system.
Central Venous Blood Gas	LAB	VBG-CV	6 mL Lithium Heparin dark green top tube	Room Temperature: up to 30 minutes	30 minutes	<ul style="list-style-type: none"> Send to the laboratory immediately after collection, sample must be tested within 30 minutes. Do NOT place sample on ice. Do NOT send sample through pneumatic tube system.
Cord Blood Gases	LAB	VBGCORD	Hepranized Syringe	Room Temperature: up to 30 minutes	30 minutes	<ul style="list-style-type: none"> Send to the laboratory immediately after collection, sample must be tested within 30 minutes. Do NOT place sample on ice. Do NOT send sample through pneumatic tube system.
Capillary Gases	LAB	CBG	Capillary Gas Collection Tube	Room Temperature: up to 30 minutes	30 minutes	<ul style="list-style-type: none"> Send to the laboratory immediately after collection, sample must be tested within 30 minutes. Do NOT place sample on ice. Do NOT send sample through pneumatic tube system.
Osmolality	LAB	Serum: OSMS	5 mL gold top (SST) tube	Refrigerate if testing delayed.	STAT: 1 hour Routine: 4 hours	
		Urine: OSMU	Sterile (universal) container			
		Pleural Fluid: OSMPF				
Mono Test	LAB	MONOT	5 mL gold top (SST) tube	Refrigerated: up to 8 days	Routine: 24 hours	<ul style="list-style-type: none"> Hemolyzed specimens should not be used.
Fetal Fibronectin	LAB	FFN	Cytc Specimen Collection Kit.	Room Temperature: up to 8 hours 2-8°C : up to 3 days Less than -20 °C: up to 7 days	1 hour	
Influenzae A&B	RT	INFSWAB	Nasopharyngeal swab placed into 1-2 mL of viral transport media.	2-8°C : up to 72 hours Less than -20 °C: up to 7 days	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> A viral culture will be performed on all negative swabs by Public Health Laboratories.
β–HCG (Qualitative)	LAB	Serum: HCGQUALS	5 mL gold top (SST) tube	2-8°C: up to 48 hours Less than -20°C: Thaw and centrifuge prior to	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> A first morning urine specimen is preferred since it generally contains the highest concentration of hCG.

Note: Unless otherwise indicated specimens are peripheral blood and urine ONLY, intraosseous blood samples are not acceptable for laboratory examination.

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		Urine: HCGQUAU	Sterile (universal) container	testing		
Drugs of Abuse (Urine)	LAB	MEDTOX	Sterile (universal) container	2 to 8°: up to 2 days Less than -20°C: up to 6 months	STAT: 1 hour Routine: 4 hours	
Occult Blood	LAB	OB	Sterile (universal) container	Room Temperature	STAT: 15 minutes Routine: 4 hours	<ul style="list-style-type: none"> Fecal specimens from bowel movements on three different days should be submitted for testing. Patient collection instructions form RHC 2040 (Occult Blood).
Crystals	LAB	Synovial Fluid: CRYSJF	6 mL Lithium Heparin dark green top tube	Room Temperature 2 to 8°: up to 24 hours	24 hours	<ul style="list-style-type: none"> Slides for crystals will be read by a Pathologist.
Ketones	LAB	Serum: KETS	5 mL gold top (SST) tube	2 to 8°: up to 7 days	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> For urine ketones order a urinalysis.
Protein Electrophoresis	LAB	PEP ELECTRO	5 mL gold top (SST) tube	2 to 8°: up to 7 days Less than -20°C: up to 30 days	7 days	<ul style="list-style-type: none"> Abnormal protein electrophoresis will reflex an immuno fixation (IFE).
Microalbumin (Random Quantitative)	LAB	MICALB RU	Sterile (universal) container	18-28°C: up to 24 hours 2-8°C: up to 7 days	24 hours	<ul style="list-style-type: none"> A microalbumin/creatinine ratio is provided.
Estimated Glomerular Filtration Rate (EGFR)	LAB	EGFR	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 5 days 2-8°C: up to 30 days Less than -18°C: indefinitely	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> The calculation is valid only in patients with stable renal function. Serum creatinine will also be done.
Glucose Tolerance Test (GTT)	LAB	Pregnant Women: GTT PREG	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 24 hours 2-8°C: up to 7 days Less than -18°C: up to 1 year	Routine: 4 hours	<ul style="list-style-type: none"> Glucose will be drawn after 1 hour. No fasting required. 50g glucose drink.
Glucose Tolerance Test (GTT)	LAB	Pregnant Women with 1 hr GTT abnormal: GTT2	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 24 hours 2-8°C: up to 7 days Less than -18°C: up to 1 year	Routine: 4 hours	<ul style="list-style-type: none"> Fasting glucose needs to be drawn. If fasting glucose is greater than 7.8 mmol/L the test will be cancelled. 75g glucose drink. Glucose will be drawn at 1 and 2 hours.
		Non-Pregnant Female or Male: GTT2	4.5 mL mint green (PST) Gel and Lithium Heparin tube	18-28°C: up to 24 hours 2-8°C: up to 7 days Less than -18°C: up to 1 year	Routine: 4 hours	<ul style="list-style-type: none"> Fasting needs to be drawn If fasting glucose is greater than 7.8 mmol/L the test will be cancelled. 75g glucose drink. Glucose will be drawn at 1 and 2 hours.

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Newborn Screening Test	LAB	NBS	Newborn Screening Cards	Room Temperature	10-14 days	<ul style="list-style-type: none"> Capillary sample from the newborn's heel is required for testing. Newborn must be greater than 24 hours old prior to collection.
CBC	LAB	AH CBC CBC + Retic: R	<p>Infants less than 4 months: 1 mL lavender top K₂EDTA tube</p> <p>Pediatric greater than 4 months & less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & Adults: 4 mL lavender top K₂EDTA tube</p>	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> All three must be gently inverted a minimum of eight times to ensure proper mixing and allowed to stabilize for ten minutes prior to analysis. Alternately 2 mL lavender top tube for CCU arterial line draws.
Prothrombin Time	LAB	PT INR	<p>Infants less than 4 months: 1.8 mL light blue top Na. Citrate tube (3.2% only)</p> <p>Pediatric greater than 4 months & Adults: 2.7 mL light blue top Na. Citrate tube (3.2% only)</p>	Samples should be tested within 24 hours provided tubes are unopened and samples are stored at 18-24 °C. Refrigerated samples are unacceptable.	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Refrigerated samples are unacceptable. Platelet poor plasma may be stored at -20 °C for up to two weeks or -70 °C for up to six months. Samples that have been frozen should not stand at 37°C for more than five minutes after being thawed. 9:1 (sample to anticoagulant) ratio MUST be met. Fill tube until vacuum is depleted.
Thrombin Time	LAB	TT	<p>Infants less than 4 months: 1.8 mL light blue top Na. Citrate tube (3.2% only)</p> <p>Pediatric greater than 4 months & Adults: 2.7 mL light blue top Na. Citrate tube (3.2% only)</p>	15-25°C: up to 4 hours	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Centrifuge as soon as possible after collection. Samples containing heparin should be run within two hours. 9:1 (sample to anticoagulant) ratio MUST be met. Fill tube until vacuum is depleted.

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
APTT	LAB	APTT PTT	<p>Infants less than 4 months: 1.8 mL light blue top Na. Citrate tube (3.2% only)</p> <p>Pediatric greater than 4 months & Adults: 2.7 mL light blue top Na. Citrate tube (3.2% only)</p>	Samples should be tested within 4 hours provided tubes are unopened and samples are stored at 18-24°C.	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> • Samples should be tested within four hours provided tubes are unopened and samples are stored at 18-24°C. • APTT for Unfractionated Heparin (UFH): Samples should be centrifuged within one hour of collection and tested within four hours provided tubes are unopened and samples are stored at 18-24°C. • Platelet poor plasma may be stored at -20°C for up to two weeks or -70°C for up to six months. Samples that have been frozen should not stand at 37°C for more than five minutes after being thawed. • 9:1 (sample to anticoagulant) ratio MUST be met. • Fill tube until vacuum is depleted.
D-Dimer	LAB	DD	<p>Infants less than 4 months: 1.8 mL light blue top Na. Citrate tube (3.2% only)</p> <p>Pediatric greater than 4 months & Adults: 2.7 mL light blue top Na. Citrate tube (3.2% only)</p>	Room Temperature	STAT: 1 hour	<ul style="list-style-type: none"> • Centrifuge specimen for a minimum of eight minutes at 3400 rpm as soon as possible after collection. Testing should be completed within two hours of collection. Referred in frozen plasma specimens should be thawed at 37°C for no longer than five minutes and centrifuge plasma before testing. After thawing the assay must be performed within two hours. • 9:1 (sample to anticoagulant) ratio MUST be met. • Fill tube until vacuum is depleted. • Sample MUST be tested within 2 hours of collection.

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Fibrinogen-Clauss	LAB	FIB	<p>Infants less than 4 months: 1.8 mL light blue top Na. Citrate tube (3.2% only)</p> <p>Pediatric greater than 4 months & Adults: 2.7 mL light blue top Na. Citrate tube (3.2% only)</p>	Room Temperature	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> Centrifuge as soon as possible after collection for a minimum of eight minutes at 3400 rpm. Although studies have demonstrated no significant change in fibrinogen values on plasma samples stored up to 72hours at 4⁰C, it is good laboratory practice to test samples as soon as possible. 9:1 (sample to anticoagulant) ratio MUST be met. Fill tube until vacuum is depleted.
PFA (Platelet Function and Adhesion)	LAB	PFS	<p>2 X 2.7 mL light blue top Na. Citrate tube (3.2% only) AND 1-4 mL lavender top K₂EDTA tube</p>	Sample stable stored at room temperature undisturbed for up to 4 hours	STAT: 1 hour Routine: 4 hours	<ul style="list-style-type: none"> DO NOT CENTRIFUGE THE SAMPLE. Patient preparation: If possible, medications containing ASA, ibuprofen or any drug known to act as a platelet antagonist should be stopped seven to ten days prior to testing but must be discontinued a minimum of 48 hours. Venipuncture should be performed using a 21 gauge or larger needle. Discard sample if there is venous collapse or stoppage of blood flow during collection. Do not use hemolyzed samples. DO NOT send sample through pneumatic tube system. 9:1 (sample to anticoagulant) ratio MUST be met. Fill tube until vacuum is depleted.
Erythrocyte Sedimentation Rate (ESR)	LAB	ESR	<p>Infants and Pediatric less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & Adults: 4 mL lavender top K₂EDTA tube</p>	Room Temperature: less than 6 hours 2-8°C: up to 24 hours	24 hours	<ul style="list-style-type: none"> All tubes for ESR must have a minimum of 2 mL. Alternately 2 mL (full) lavender top tube for CCU arterial line draws.

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Solubility Test of Hemoglobin S (Sickle Test)	LAB	SK	<p>Infants less than 4 months: 1 mL lavender top K₂EDTA tube</p> <p>Pediatric greater than 4 months & less than 3 years: 2 mL lavender top K₂EDTA tube</p> <p>Children greater than 3 years & Adults: 4 mL lavender top K₂EDTA tube</p>	1-10°C: up to 45 days	24 hours	<ul style="list-style-type: none"> Testing will not be done on patients less than 6 months of age.
Malaria Smear	LAB	MP	<p>Anticoagulants are not recommended for blood to be used for malarial smears.</p> <p>4 mL lavender top K₂EDTA tube is acceptable if received in lab within 1 hour of collection.</p>	Room Temperature: up to 1 hour	STAT: 1 hour	<ul style="list-style-type: none"> A malaria request consists of three orders for malaria in a twenty four hour period. ie: 0 hours 12 hours and 24 hours unless specified by a pathologist. Specimen is considered stat and should be received in the lab within one hour of collection.
Kleihauer	LAB	KL	4 mL lavender top K ₂ EDTA tube less than six hours old.	Room Temperature: up to 6 hours	daily	<ul style="list-style-type: none"> The Kleihauer stain determines the amount fetal hemoglobin in blood smears.
Tissue for Pathology (routine order)	Not available in OE.	Complete Tissue Requisition form RHC691	Suitable sized container containing 10% buffered Formalin. (must be minimum 1:20 ratio, tissue to formalin)	Room Temperature	3-5 days	<ul style="list-style-type: none"> This is an irretrievable sample. DO NOT send through pneumatic tube system. Anatomical pathology specimens shall be in a large enough container to accommodate the specimen and fixative (recommended volume 10-20X specimen size).

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Breast Tissue	Not available in OE.	Complete Tissue Requisition form RHC691	Suitable sized container containing 10% buffered Formalin. (must be minimum 1:20 ratio, tissue to formalin)	Room Temperature	3-6 days	<ul style="list-style-type: none"> • Cold ischemic time for fresh breast tissue specimens for prognostic and predictive markers shall be documented and limited to one hour. <i>Once a specimen is removed from the patient, the ischemic time begins. Within an hour, the specimen must be inspected grossly, have margins designated, be sliced at 5-10 mm intervals (bread-loafing) and be placed in sufficient volume of neutral buffered formalin. This ensures complete fixation of the proteins on which prognostic markers will be tested.</i> • This is an irretrievable sample. DO NOT send through pneumatic tube system. • Phone Pathology Assistant (ext 2958) when sending breast tissue. If no answer call the Histology Lab (ext 2950). • Specimen MUST be handed off directly to Pathology/ Histology personnel.
Sentinal Lymph Nodes	Not available in OE.	Complete Tissue Requisition form RHC691	Suitable sized container containing 10% buffered Formalin. (must be minimum 1:20 ratio, tissue to formalin)	Room Temperature	3-5 days	<ul style="list-style-type: none"> • All radioactive dye injected tissue should be labeled as such.
Tissue for Pathology-Quick Section	Not available in OE.	Complete Tissue Requisition form RHC691	Dry specimen container accompanied by a completed Tissue Requisition	Room Temperature	20 minutes from time of receipt	<ul style="list-style-type: none"> • Frozen Section must be prescheduled in Client Server and specimen MUST be handed off directly to Pathology/ Histology personnel. • Phone Pathology Assistant (ext 2958) when sending the section. If no answer call the Histology Lab (ext 2950). • This is an irretrievable sample. DO NOT send through pneumatic tube system.
Lymph Node Protocol	Not available in OE.	Complete Tissue Requisition form RHC691	Send specimen in saline soaked gauze accompanied by a completed tissue requisition (include patient history).	Room Temperature	3-5 days	<ul style="list-style-type: none"> • Lymph Node Protocols must be prescheduled Before 12:00 Monday to Thursdays in Client Server under Frozen Sections. • This is an irretrievable sample. DO NOT send through pneumatic tube system.
Testicular Biopsy	Not available in OE.	Complete Tissue Requisition form RHC691	Specimen to be placed in Bouin's Fixative.	Room Temperature	3-5 days	<ul style="list-style-type: none"> • Lab must be notified at least ONE WEEK prior to procedure in order to have fixative available. • This is an irretrievable sample. DO NOT send through pneumatic tube system.

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Kidney Biopsy	Not available in OE.	Complete Tissue Requisition form RHC691	Technologist will bring appropriate fixatives for kidney biopsy testing.	Room Temperature	4-6 weeks	<ul style="list-style-type: none"> Kidney biopsies must be prescheduled with Histology Lab (ext 2950) Before 12:00 Monday to Thursdays. Technologist will go to Ultrasound for collection of specimens. Patient history must be available. This is an irretrievable sample. DO NOT send through pneumatic tube system.
Muscle Biopsy	Not available in OE.	Complete Tissue Requisition form RHC691	Dry container with dry specimen.	Room Temperature	2-4 weeks	<ul style="list-style-type: none"> Muscle biopsies must be prescheduled with Histology (ext 2950) Before 12:00 Monday to Thursdays. This is an irretrievable sample. DO NOT send through pneumatic tube system.
Bone Marrow	Not available in OE.	Complete Tissue Requisition form RHC691	Technologist will bring appropriate fixatives for bone marrow testing.	Room Temperature	3-5 days	<ul style="list-style-type: none"> Must be prescheduled with Pathologist. Technologist accompanies Pathologist for Specimen collection. This is an irretrievable sample. DO NOT send through pneumatic tube system.
Stool (WBC, eosinophils and qualitative fat)	Not available in OE.	Complete General Laboratory Requisition RHC1168	Sterile (universal) container	Room Temperature	24-48 hours	<ul style="list-style-type: none"> Collect samples in dry containers and fill out appropriate requisition. Samples processed Monday to Friday in Histology.
Gynaecology (Pap Smears – Liquid Based & Conventional)	Not available in OE.	Complete Cytology Requisition Form RHC2425	Sample collected into Surepath Liquid- based Collection System routinely. Pregnant women or Post-Hysterectomy patients collected with Ayre scraper onto 1 slide and immediately fixed with Cytospray fixative.	Room Temperature	8 days	<ul style="list-style-type: none"> Pregnant women over 10 weeks and post-hysterectomy use conventional method with Ayre scraper on 1 slide which is immediately fixed with Cytospray fixative. Make sure the patient's full name is written on the frosted end of the glass slide with lead pencil or permanent marker. Gyne kits (both conventional and liquid based) are available from the Cytology Lab (ext 2943).
Urinary Tract (for cytology)	Not available in OE.	Complete Cytology Requisition Form RHC2425	Collect into Universal container containing toxic CytoRich Red Collection fluid Include equal parts of CytoRich Red fixative and specimen	Room Temperature	24-48 hours	<ul style="list-style-type: none"> Indicate source of specimen on requisition and container. DO NOT send through pneumatic tube system. Patient collection instructions form RHC 952 (Midstream Urine for Cytology).

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Test / Specimen Type	Order Entry Category	Order Entry Procedure	Container	Optimum Specimen Holding Temperature	Turn Around Time	Notes / Specimens Stability Criteria
Fine Needle Aspirates (for cytology)	Not available in OE.	Complete Cytology Requisition Form RHC2425	Collect into Universal container containing toxic CytoRich Red Collection fluid Include equal parts of CytoRich Red fixative and specimen	Room Temperature	24-48 hours	<ul style="list-style-type: none"> Indicate source of specimen on requisition and specimen container along with any pertinent clinical data. This is an irretrievable sample. DO NOT send through pneumatic tube system.
Contact/ Touch Smears/ Tzank	Not available in OE.	Complete Cytology Requisition Form RHC2425	2 touch smears that are immediately fixed with Cytospray fixative, deliver to Laboratory immediately	Room Temperature	24-48 hours	<ul style="list-style-type: none"> Indicate source of specimen on requisition and container. Collect one or two touch preparations that are fixed with Cytospray fixative. This is an irretrievable sample. DO NOT send through pneumatic tube system. Touch prep kits and Cytospray fixative are available from the Cytology Lab (ext 2943).
Direct Smear/Nipple Discharge	Not available in OE.	Complete Cytology Requisition Form RHC2425	The discharge should be smeared directly from the nipple onto a glass slide and immediately fixed with Cytospray fixative.	Room Temperature	24-48 hours	<ul style="list-style-type: none"> Make sure the patient's full name is written on the frosted end of the glass slide with lead pencil or permanent marker. Submit slide(s) to Cytology Lab in a cardboard mailing folder along with the requisition. Collection kits and Cytospray fixative are available from the Cytology Lab (ext 2943).