

Introduction

North Shore Medical Labs is a full service clinical laboratory, dedicated to serving the dynamic needs of health care providers through a committed staff and a client-focused, service-oriented organization.

At North Shore Medical Labs, quality, care and service, is the way of life. Our principal objective is to provide you with consistently accurate and diagnostically meaningful test results. To do this, stringent quality control programs are an integral part of all testing programs. We additionally participate in the continuing proficiency evaluation programs of the Department of Health and Human Services in conformance with the Clinical Laboratory Improvement Act, as amended in 1988.

NSML prides itself on the Personalized service, in addition to quality testing. We encourage suggestions and ideas from you as to how we may better satisfy your laboratory needs. Please feel free to contact us at any time with your questions, suggestions and ideas.

*For current reference ranges, methodology and specimen requirement please refer to patient report or contact lab.

Supplies

All supplies necessary for the submission of specimens to our laboratory are furnished at no charge. Supply request forms are available for reordering supplies. When completing the supply request form, please indicate your Account Number and Address. Initially an account representative will bring the start up kit which will include supplies and requisition forms. He or she will demonstrate the staff at your office the proper use of all materials in order to ensure a minimum of service problem.

Courier Service

All clients are provided with free pickup and delivery service. Every effort is made to establish a pickup time which is consistent with your office requirements. STAT pickup will provided when you call in.

Reporting

On most procedures the test results are provided within 24 hours. Specimens are processed upon receipt, and all reports are carefully reviewed and edited by technical staff. All STAT and critical results are called by phone., followed by printed report. Written reports are sent to clients by distribution services, mail or teleprinter. When circumstances warrant, exceptionally rapid transmission of results can be provided by means of installation of telecommunication.

Staffing expertise

Board certified pathologist direct laboratory activities, providing supportive services in both the medical and technical areas on a regular basis. The lab is staffed with certified medical technologists and technicians. Technical staff is equally supported by highly trained client service and sales representatives who are always ready to respond to needs of the clients.

Training Program for office personnel

Our representative will arrange for the training of new personnel in technique of specimen collection, preparation and handling.

Lab Management Program

We actively participate in lab management programs for group practices. We encourage your discussion of special needs in these areas.

Request Forms

In order to meet the special requirements of your practice, NSML has the ability to create customized or specialized test groupings or profiles. These special profiles can be pre-printed directly onto your test requisition form in order to meet your individualized needs efficiently.

Special Pricing

Special prices are available for special profiles, employee health programs, public health functions, drug screening programs etc.

TEST NO.	TEST TYPE	REQUIREMENTS
931	ADDISON DISEASE PROFILE Adrenal Antibodies Adrenocorticotrophic Hormone Cortisol, Total	- 2 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze. - 4 mL Serum - Plastic vial (1 spun barrier tube).
7004	ALLERGY (RAST) TESTING	
8917	ANEMIA PROFILE, BASIC CBC, Platelet Count, and Differential C-Reactive Protein Ferritin Iron, Total Iron Binding Capacity Percent Saturation, Iron (calculated)	- EDTA Whole Blood - 1 full lavender top tube. - 10 mL Serum - Plastic vial (2 spun Barrier tubes).
918	ANEMIA PROFILE, COMPREHENSIVE CBC, Platelet Count and Differential C-Reactive Protein Ferritin Folic Acid Haptoglobin Hemoglobin A2 Hemoglobin Electrophoresis Iron, Total Iron Binding Capacity Percent Saturation, Iron (calculated) Reticulocyte Cell Count Vitamin B12	- EDTA Whole Blood - 2 full lavender top tubes. - 10 mL Serum - Plastic vial (2 spun Barrier tubes).
2938	ANGIOEDEMA PANEL	- 2 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze. - 4 mL Frozen serum - Plastic vial (1 spun barrier tube).
909	ANTICONVULSANT PANEL Phenobarbital (Luminal®) Phenytoin (Dilantin®)	- 1 mL Serum - Plastic vial (1 full red top tube).
894	ANTICONVULSANT PANEL PLUS Phenobarbital (Luminal®) Phenytoin (Dilantin®) Primidone (Mysoline®)	- 2 mL Serum - Plastic vial. (1 full red top tube).

TEST NO.	TEST TYPE	REQUIREMENTS
895	ANTITHROMBIN III PANEL Antithrombin III Antigen Antithrombin III Activity	- 2 mL Frozen Citrated Plasma (blue top tube) - Transfer to plastic vial and freeze.
941	ARTHRITIS PROFILE I Antinuclear Antibodies Complement Component C3 Complement Component C4 C-Reactive Protein Immunoglobulin A Immunoglobulin G Immunoglobulin M Rheumatoid Factor Uric Acid	- 9 mL Serum - (2 spun Barrier tubes). Avoid hemolysis. - 2 mL Frozen Serum - Plastic vial (1 spun barrier tube). Allow specimen to clot at room temperature for at least one hour. Within 2 hours of collection, centrifuge specimen at 4° C. Separate serum from cells and transfer serum to plastic vial (spun barrier tube). Freeze immediately.
944	ARTHRITIS PROFILE, II Alkaline Phosphatase, Total Antinuclear Antibody Anti-Streptolysin-O-Titer C-Reactive Protein Calcium Phosphorus, Inorganic Rheumatoid Factor Sedimentation Rate Urea Nitrogen Uric Acid	- 10 mL Serum - Plastic vial (2 spun barrier tubes) or 2 full serum separator tubes. - EDTA Whole Blood - 1 full lavender top tube.
8252	BASIC METABOLIC PANEL Carbon Dioxide Sodium Potassium Chloride BUN (Urea Nitrogen) Creatinine BUN/Creatinine Ratio Glucose Calcium	- 2 mL Serum - Plastic vial (1 spun barrier tube). - Serum must be separated from the clot within one hour if meaningful results are to be obtained. Avoid hemolysis.

TEST NO.	TEST TYPE	REQUIREMENTS
916	BASIC PROFILE II Chem Screen Plus CBC & Differential ESR RPR TU T4 FTI HBsAg HBsAb HB Core Ab	<ul style="list-style-type: none"> - 5 mL Serum - Plastic vial (1 spun barrier tube) - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Centrifuge within 30-60 minutes following collection. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form. (Note fasting or hours postprandial on request form.) - EDTA Whole Blood - 1 full lavender top tube.
899	BREAST CANCER EVALUATION DNA Cell Cycle Analysis Estrogen & Progestin Receptor Assays	<ul style="list-style-type: none"> - 0.3 gram well-trimmed non-hemorrhagic Frozen Tumor Tissue. Special container available from laboratory on request. The tumor should be well-trimmed of fat and normal tissue. Keep samples cold, transfer to plastic container and freeze within one-half hour. Do not embed tissue in paraffin or wrap in gauze, foil or other substances. The plastic vial (spun barrier tube) containing the tissue must be frozen with dry ice and shipped to the laboratory on dry ice. If there is to be a delay in submission, the specimen must be stored at -70°C. Because of the extremely labile nature of the receptor, utmost care must be taken in processing the specimens. Improper handling or storage of specimens will result in decreased test accuracy.
900	BREAST CANCER MONITORING PANEL I (Baseline) CEA DNA Cell Cycle Analysis Estrogen & Progestin Receptor Assays CA15-3™ (For investigational use only)	<ul style="list-style-type: none"> - 4 mL Serum - Plastic vial (1 spun barrier tube). - 0.3 gram well-trimmed non-hemorrhagic Frozen Tumor Tissue. Special container available from laboratory on request. The tumor should be well-trimmed of fat and normal tissue. Keep samples cold, transfer to plastic container and freeze within one-half hour. Do not embed tissue in paraffin or wrap in gauze, foil or other substances. The plastic vial (spun barrier tube) containing the tissue must be frozen with dry ice and shipped to the laboratory on dry ice. If there is to be a delay in submission, the specimen must be stored at -70°C. Because of the extremely labile nature of the receptor, utmost care must be taken in processing the specimens. Improper handling or storage of specimens will result in decreased test accuracy.

TEST NO.	TEST TYPE	REQUIREMENTS
901	BREAST CANCER MONITORING PANEL II (Follow up) CEA CA 15-3™ (For investigational use only)	- 4 mL Serum - Plastic vial (1 spun barrier tube).
	CARE PANEL #1	See Chem Screen Plus.
902	CARE PANEL #2 Cholesterol, High Density Lipoprotein (HDL) Cholesterol/HDL Ratio (Calculated) Cholesterol, Low Density Lipoprotein (LDL) (Calculated) Cholesterol, Total Triglycerides	- 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form.
903	CARE PANEL #3 Cholesterol, Total Lipoprotein Electrophoresis and Phenotyping Triglycerides	- 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form.
011	CHEM - 6 Glucose BUN Sodium Potassium Chloride Creatine	- 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Centrifuge within 30-60 minutes following collection. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form. (Note fasting or hours postprandial on request form.)
012	CHEM - 12 Total Protein Albumin Calcium Inorganic Phosphorus Cholesterol Glucose BUN Uric Acid Total Bilirubin Alkaline Phosphatase LDH SGOT	- 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Centrifuge within 30-60 minutes following collection. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form. (Note fasting or hours postprandial on request form.)

TEST NO.	TEST TYPE	REQUIREMENTS
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013	CHEM SCREEN A/G Ratio (Calculated) Alanine Aminotransferase (ALT) Albumin Alkaline Phosphatase Aspartate Transaminase (AST) Bilirubin, Total BUN/Creatinine Ratio (Calculated) Calcium Carbon Dioxide Chloride Cholesterol, Total Creatinine Globulin, Total (Calculated)	Glucose Iron, Total Lactate Dehydrogenase (LD) Phosphorus, Inorganic Potassium Protein, Total Sodium Triglycerides Urea Nitrogen (BUN) Uric Acid	- 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Centrifuge within 30-60 minutes following collection. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form. (Note fasting or hours postprandial on request form.)
021	CHEM SCREEN PLUS A/G Ratio (Calculated) Alanine Aminotransferase (ALT) Albumin Alkaline Phosphatase Aspartate Transaminase (AST) Bilirubin, Total BUN/Creatinine Ratio (Calculated) Calcium Carbon Dioxide Chloride Cholesterol, Total Cholesterol, High Density Lipoprotein (HDL) Cholesterol/HDL Ratio (Calculated) Cholesterol, Low Density Lipoprotein (LDL) (Calculated)	Creatinine Globulin, Total (Calculated) Glucose Iron, Total Lactate Dehydrogenase (LD) Phosphorus, Inorganic Potassium Protein, Total Sodium Triglycerides Urea Nitrogen (BUN) Uric Acid	- 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Centrifuge within 30-60 minutes following collection. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form. (Note fasting or hours postprandial on request form.)

TEST NO.	TEST TYPE	REQUIREMENTS
8251	COMPREHENSIVE METABOLIC PANEL Carbon Dioxide Sodium Potassium Chloride Albumin Alkaline Phosphatase ALT (SGPT) AST (SGOT) Bilirubin, Total BUN (Urea Nitrogen) Creatinine BUN/Creatinine Ratio Glucose A/G Ratio Calcium	- 2 mL Serum - Plastic vial (1 spun barrier tube). - Serum must be separated from the clot within one hour if meaningful results are to be obtained. Avoid hemolysis.
926	COAGULATION PROFILE PT APTT Fibrinogen Platelet Count	- Citrated Whole Blood - 1 full blue top tube. Mix gently. Maintain specimen at room temperature. Do not uncap. Correct ratio of blood to citrate (9:1) is critical. Stable 24 hours at room temperature. If specimen will be delayed longer than 24 hours follow instructions. - 5 mL Citrated Whole Blood (blue top tube). If specimen will not reach laboratory within 24 hours, centrifuge sample. Transfer plasma to plastic vial (spun barrier tube) and keep at room temperature. Stable 2 days at room temperature. - EDTA Whole Blood - 1 full lavender top tube.
947	COMPLEMENT ACTIVATION PANEL (Alternate and Classical Pathways) Complement Component C3 Complement Component C3, Proactivator C4d/C4 Ratio for C4 Activation	- 2 mL EDTA Frozen Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze.
908	COMPLEMENT EVALUATION Complement Component C1q Complement Component C3 Complement Component C4 Complement Component C3, Proactivator	- 1 mL EDTA Frozen Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze.
907	COMPLEMENT SPECIFIC IMMUNE COMPLEX EVALUATION Immune Complex C1q Binding Assay Complement Specific Immune Complex	- 1 mL Frozen Serum - Plastic vial (1 spun barrier tube).

TEST NO.	TEST TYPE	REQUIREMENTS
1910	CORONARY RISK PANEL I Apolipoprotein A1 Apolipoprotein B Apolipoprotein A1/B Chem Screen Plus	- 4 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form.
919	CORONARY RISK COMPREHENSIVE Apolipoprotein A1 Apolipoprotein B Apolipoprotein A1/B Cholesterol, HDL Cholesterol, LDL (Calculated) Cholesterol/HDL Ratio Cholesterol, Total Triglycerides	- 6 mL Serum - Plastic vial (2 spun barrier tubes). Fasting specimen required. Patient should fast 12-16 hours prior to collection. Plasma or grossly lipemic samples are not acceptable. State patient's age and sex on the test request form.
949	CUSHING'S DISEASE EVALUATION Adrenocorticotrophic Hormone Cortisol by RIA, Free, Urine Cortisol, Total Dehydroepiandrosterone Sulfate	- 2 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial. Draw in prechilled EDTA tube. Centrifuge immediately. Transfer plasma to plastic vial as soon as possible and freeze immediately. - 1 mL Serum - Plastic vial (1 spun barrier tube). - 75 mL Frozen Urine - Plastic container. Aliquot from well-mixed, 24-hour collection. Record total volume on both the specimen container and the test request form.
946	DIABETES PROFILE C-Peptide Glucose Glycosylated Albumin Hemoglobin A1c Insulin Microalbumin, Urine Potassium	- 2 mL Urine - Screw-cap tube. Aliquot from a well-mixed 24-hour collection or a timed specimen. Specify time of collection intervals and total volume on both the specimen container and the test request form. - 5 mL Fluoridated and Oxalated Whole Blood (gray top tube) - Plastic vial. Fasting specimen required. Patient should fast for 10-16 hours prior to collection. - 4 mL Frozen Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. - EDTA Whole Blood - 1 full lavender top tube. - 2 mL Serum - Plastic vial (1 spun barrier tube). - 1 mL Plasma (lavender top tube) - Plastic vial.
945	DIABETES MONITORING I Glucose, Fasting Hemoglobin A1c Potassium	- 2 mL Serum - Plastic vial (1 spun barrier tube). - EDTA Whole Blood - 1 full lavender top tube. - 5 mL Fluoridated and Oxalated Whole Blood (gray top tube) - Plastic vial. Fasting specimen required. Patient should fast for 10-16 hours prior to collection.

TEST NO.	TEST TYPE	REQUIREMENTS
915	DIABETES MONITORING II Glucose, Fasting Glycosylated Albumin Hemoglobin A1c Microalbumin, Urine Potassium	<ul style="list-style-type: none"> - 2 mL Serum - Plastic vial (1 spun barrier tube). - EDTA Whole Blood - 1 full lavender top tube. - 1 mL Plasma (lavender top tube) - Plastic vial. - 2 mL Urine - Screw-cap tube. Aliquot from a well-mixed, 24-hour collection or a timed specimen. Specify time of urine collection intervals and total volume on both the screw-cap tube and the test request form. - 5 mL Fluoridated and Oxalated Whole Blood (gray top tube) - Plastic vial. Fasting specimen required. Patient should fast for 10-16 hours prior to collection.
8254	ELECTROLYTE PANEL Carbon Dioxide Chloride Potassium Sodium	<ul style="list-style-type: none"> - 2 mL Serum - Plastic vial (1 spun barrier tube). - Serum must be separated from the clot within one hour if meaningful results are to be obtained. Avoid hemolysis.
911	ENCEPHALITIS EVALUATION, COMPREHENSIVE Mumps Virus IgG Antibody Rubeola Virus IgG Antibody Varicella-Zoster Virus IgG Antibody Herpes Simplex Types 1 and 2 Virus IgG Antibody	<ul style="list-style-type: none"> - 2 mL Serum - Plastic vial (1 spun barrier tube). <p>NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen as acute or convalescent. Freeze acute until convalescent specimen is drawn.</p>
924	Acute and Convalescent	
	EPSTEIN-BARR VIRUS ANTIBODIES SCREEN	See General Listing section.
	EPSTEIN-BARR VIRUS ANTIBODIES, COMPREHENSIVE	See General Listing section.
	EPSTEIN-BARR VIRUS CAPSID ANTIBODIES	See General Listing section.
	ESTROGEN AND PROGESTIN RECEPTOR ASSAYS	See General Listing section.

TEST NO.	TEST TYPE	REQUIREMENTS
923	FATIGUE PROFILE I CBC, Platelet Count and Differential C-Reactive Protein Heterophile, Mono Screen Thyroid Panel, Hypo Chem Screen Plus	<ul style="list-style-type: none"> - EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 4 mL Serum - Plastic vial (1 spun barrier tube). - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to collection. Centrifuge within 30-60 minutes following collection. State patient's age and sex on the test request form.
920	FATIGUE PROFILE II CBC, Platelet Count and Differential C-Reactive Protein Heterophile, Mono Screen Thyroid Panel, Hypo Human Immunodeficiency Virus-I Antibodies Screen Chem Screen Plus	<ul style="list-style-type: none"> - EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 6 mL Serum - Plastic vial (2 spun barrier tubes). - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to collection. Centrifuge within 30-60 minutes following collection. State patient's age and sex on the test request form.
921	FATIGUE PROFILE III CBC, Platelet Count and Differential C-Reactive Protein Heterophile, Mono Screen Hepatitis B Surface Antigen (HBsAg) Thyroid Panel, Hypo CMP	<ul style="list-style-type: none"> - EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 6 mL Serum - Plastic vial (2 spun barrier tubes). - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to collection. Centrifuge within 30-60 minutes following collection. State patient's age and sex on the test request form.
922	FATIGUE PROFILE IV CBC, Platelet Count and Differential C-Reactive Protein Heterophile, Mono Screen Hepatitis B Surface Antigen (HBsAg) Thyroid Panel, Hypo Human Immunodeficiency Virus-I Antibodies Screen CMP	<ul style="list-style-type: none"> - EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 8 mL Serum - Plastic vial (2 spun barrier tubes). - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to collection. Centrifuge within 30-60 minutes following collection. State patient's age and sex on the test request form.

TEST NO.	TEST TYPE	REQUIREMENTS
940	FERTILITY STUDY LH FSH Prolactin Estriol Progesterone T3 T4 Testosterone Androstenedione Chem Screen Plus	- 8 mL Serum - Plastic vial (2 spun barrier tubes). - 3 mL Serum - Plastic vial (1 spun barrier tube). State patient's age and sex on the test request form. Fasting specimen required. Patient should fast for 12-16 hours prior to collection. Centrifuge specimen within 30-60 minutes following collection.
933	FSH AND LH Follicle Stimulating Hormone (FSH) Luteinizing Hormone (LH)	- 3 mL Serum - Plastic vial (1 spun barrier tube). State patient's age and sex on the test request form.
	FUNGUS ANTIBODY PANEL	See General Listing section.
	GLUCOSE TOLERANCE TESTS	See General Listing section.
934	HEAVY METALS EVALUATIONS, BLOOD Quantitative Analysis for: Arsenic Lead Mercury	- Heparinized Whole Blood - 2 full royal blue top trace metal tubes. Mix well to avoid clot formation. Contact laboratory for royal blue top trace metal tubes. Since gray, green or lavender top tubes may be contaminated with lead, they should not be used for this request.
935	HEAVY METALS EVALUATION, URINE Quantitative Analysis for: Arsenic Lead Mercury	- 90 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour urine collection. Collect in lead-free container with 20 mL 6N HCl. Record total volume on both specimen container and test request form.
936	HEMOGLOBINOPATHY PROFILE CBC, Platelet Count and Differential Hemoglobin by Alkali Denaturation, Fetal Hemoglobin Electrophoresis Hemoglobin A2 by Ion Exchange Chromatography	- EDTA Whole Blood - 3 full lavender top tubes.
	HEMOPHILIA A CARRIER DETECTION PANEL	See General Listing section.

TEST NO.	TEST TYPE	REQUIREMENTS
8253	HEPATIC FUNCTION PANEL Albumin Alkaline Phosphatase ALT (SGPT) AST (SGOT) Bilirubin, Total Bilirubin, Direct A/G Ratio Globulin Total Protein	- 2 mL Serum - Plastic vial (1 spun barrier tube).
937	HEPATITIS B IMMUNITY PANEL Hepatitis B Core Antibody, Total (HBcAb) Hepatitis B Surface Antibody (HBsAb)	- 2 mL Serum - Plastic vial (1 spun barrier tube).
990	HEPATITIS B INFECTIVITY PANEL Hepatitis B Virus DNA Hepatitis Be Antigen	- 5 mL Frozen Serum - Plastic vial (1 spun barrier tube).
939	HEPATITIS B MONITORING PANEL Hepatitis B Surface Antigen (HBsAg) Hepatitis Be Antibody (HBeAb) Hepatitis Be Antigen (HBeAg) Hepatitis B Core Antibody, Total (HBcAb) Hepatitis B Surface Antibody (HBsAb)	- 5 mL Serum - Plastic vial (1 spun barrier tube).
898	HEPATITIS DELTA PANEL Hepatitis B Surface Antigen (HBsAg) Hepatitis Delta Virus Antibody	- 2 mL Serum - Plastic vial (1 spun barrier tube).
896	HEPATITIS PANEL I, ACUTE Hepatitis B Surface Antigen (HBsAg) Hepatitis B Core IgM Antibody Hepatitis A Antibody (HAVAB) (Total or IgM)	- 4 mL Serum - Plastic vial (1 spun barrier tube).
942	HEPATITIS PANEL II, ACUTE Hepatitis B Surface Antigen (HBsAg) Hepatitis B Core IgM Antibody Hepatitis A Antibody (HAVAB) (Total or IgM) Hepatitis C Virus Antibody	- 4 mL Serum - Plastic vial (1 spun barrier tube). - 2 mL Frozen Serum - Plastic vial (1 spun barrier tube).
943	HIGH RISK PREGNANCY EVALUATION Lupus-Type Anticoagulant Cardiolipin Antibodies	- 2 mL Serum - Plastic vial (1 spun barrier tube). - 2 mL Frozen Citrated Plasma (blue top tube) - Plastic vial. Separate plasma and freeze at -70°C.

TEST NO.	TEST TYPE	REQUIREMENTS
930	HIRSUTISM EVALUATION I (with Normal Menses) Dehydroepiandrosterone Sulfate Testosterone Binding Globulin Testosterone, Free and Weakly Bound	- 2 mL Frozen Serum - Plastic vial. Lipemic and hemolyzed specimens are not acceptable. - 4 mL Serum - Plastic vial (1 spun barrier tube).
913	HIRSUTISM EVALUATION II (with Amenorrhea) Dehydroepiandrosterone Sulfate Prolactin Testosterone Binding Globulin Testosterone, Free and Weakly Bound	- 2 mL Frozen Serum - Plastic vial (1 spun barrier tube). Lipemic and hemolyzed specimens are not acceptable. - 6 mL Serum - Plastic vial (2 spun barrier tubes).
914	HIRSUTISM EVALUATION III (with Oligomenorrhea) Dehydroepiandrosterone Sulfate Follicle Stimulating Hormone Luteinizing Hormone Testosterone Binding Globulin Testosterone, Free and Weakly Bound	- 2 mL Frozen Serum - Plastic vial (1 spun barrier tube). Lipemic and hemolyzed specimens are not acceptable. - 6 mL Serum - Plastic vial (2 spun barrier tubes). State patient's age and sex on the test request form.
976	HIV-I ANTIGEN AND ANTIBODIES PANEL HIV-I Antibodies Screen HIV-I P24 Antigen	- 4 mL Serum - Plastic vial (1 spun barrier tube).
	HUMAN GROWTH HORMONE SERIES (2-10 specimens)	- 2 mL Serum - Plastic vial (1 spun barrier tube), for each specimen.
959	2 Specimens	
912	3 Specimens	* Use one Test Request form for each requested series.
992	4 Specimens	* Label each vial in the series with the same lab number.
897	5 Specimens	* Also label each vial in the series with the specimen time
968	6 Specimens	and with which specimen it is in the series; for example
969	7 Specimens	Specimen 1, Specimen 2, and so on.
975	8 Specimens	* Indicate in the Remarks Section of the Test Request Form the number of specimens submitted.
955	9 Specimens	* Submit all specimens in a series at the same time, tied or bound together.
956	10 Specimens	

TEST NO.	TEST TYPE	REQUIREMENTS
957	HUMAN PAPILLOMAVIRUS PANEL HPV Screen HPV Typing (Typing - Research use only)	Cervical swab or frozen biopsy submitted in HPV collection kits. Carefully follow instructions on the specimen collection kit. Other collection kits are not acceptable. See Virology section for additional information. (DNA Hybridization)
958	HYPERSENSITIVITY PNEUMONITIS PANEL <u>Aspergillus flavus</u> Antibodies <u>Aspergillus fumigatus</u> Antibodies <u>Aspergillus niger</u> Antibodies <u>Aureobasidium pullulans</u> Antibodies <u>Micropolyspora rectivirgula</u> Antibodies RAST, Pigeon Serum Antibodies <u>Saccharomonospora viridus</u> Antibodies <u>Thermoactinomyces candidus</u> Antibodies <u>Thermoactinomyces sacchari</u> Antibodies <u>Thermoactinomyces vulgaris</u> Antibodies	- 3 mL Serum - Plastic vial (1 spun barrier tube).
948	HYPERTENSION PROFILE I (Mild to Moderate) Chem Screen Plus Cortisol, Total Creatinine, Random Urine Metanephrine/Creatinine Ratio (Calculated) Metanephrines, Total, Random Urine	- 4 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. Centrifuge specimen within 30-60 minutes following collection. State patient's age and sex on the test request form. - 35 mL Random Urine - Plastic container. Final pH should be <4. If necessary, adjust pH to this level with 6N HCl.
960	HYPERTENSION PROFILE II (Severe) Aldosterone Catecholamines, Fractionated and Total Chem Screen Plus Cortisol, Total Creatinine, Random Urine Metanephrine/Creatinine Ratio (Calculated) Metanephrines, Total, Random Urine Renin Activity VMA/Creatinine Ratio (Calculated) Vanillylmandelic Acid, Random Urine	- 4 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to collection. Centrifuge specimen within 30-60 minutes following collection. State patient's age and sex on the test request form. - 100 mL Random Urine - Plastic container. Final pH should be <4. If necessary, adjust pH to this level with 6N HCl. - 2 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial. Chill EDTA tube in an ice bath prior to drawing blood. Draw blood into cold tube, mix gently by inversion, place tube in ice bath for 10 minutes. Centrifuge, transfer plasma to plastic vial and freeze. See Renin Activity in General Listing section for additional specimen collection instructions. - 5 mL Frozen Heparinized Plasma (green top tube) - Plastic vial. Collect blood after patient is supine for 30 minutes. Place green top tube in an ice bath. Centrifuge at 1000xg for 20 minutes at 2-4°C. The plasma must be free of erythrocytes. Transfer to plastic vial. Freeze, store and transport on dry ice.

TEST NO.	TEST TYPE	REQUIREMENTS
961	IMMUNE COMPLEX PANEL Immune Complex C1q Binding Assay Immune Complex Raji Cell Assay Complement Specific Immune Complex Assay	- Two 2 mL aliquots of Frozen Serum - Plastic vial (1 spun barrier tube). Submit separate specimens for each assay requiring a frozen sample. - Allow specimen to clot for at least 1 hour. Centrifuge specimen at 4°C, separate serum from cells and transfer to plastic vials (spun barrier tubes). Freeze immediately.
988	IMMUNOELECTROPHORESIS/ IMMUNOFIXATION EVALUATION Immunoelectrophoresis/Immunofixation Immunoglobulins (A,G,M) Protein Electrophoresis Interpretation	- 4 mL Serum - Plastic vial (1 spun barrier tube).
963	IMPOTENCE PANEL Luteinizing Hormone Prolactin Testosterone, Free and Weakly Bound	- 6 mL Serum - Plastic vial (2 spun barrier tubes).
964	INFLUENZA TYPES A & B VIRUS ANTIBODIES	- 2 mL Serum - Plastic vial (1 spun barrier tube).
965	Acute and Convalescent	NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
	LACTOSE TOLERANCE TESTS	See General Listing section.
	LEGIONELLA ANTIBODIES EVALUATION, COMPREHENSIVE	See General Listing section.
8294	LIPID PANEL Cholesterol, Total Triglycerides HDL Chol/HDL Ratio Calculated LDL	- 2 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to test. State patient's age and sex on the test request form.

TEST NO.	TEST TYPE	REQUIREMENTS
967	LIVER FUNCTION PANEL BASIC A/G Ratio (Calculated) Alanine Aminotransferase (ALT) Albumin Alkaline Phosphatase, Total Aspartate Transaminase (AST) Bilirubin, Direct Bilirubin, Indirect (Calculated) Bilirubin, Total Cholesterol, Total Gamma-Glutamyl Transferase (GGT) Globulin, Total (Calculated) Protein, Total	- 2 mL Serum - Plastic vial (1 spun barrier tube).
952	LIVER FUNCTION PANEL, COMPREHENSIVE A/G Ratio (Calculated) Alanine Aminotransferase (ALT) Albumin Alkaline Phosphatase, Total Aspartate Transaminase (AST) Bilirubin, Direct Bilirubin, Indirect (Calculated) Bilirubin, Total Calcium Cholesterol, Total Gamma-Glutamyl Transferase (GGT) Globulin, Total (Calculated) Glucose Lactate Dehydrogenase, Total (LD) Phosphorous, Inorganic Protein, Total Triglycerides Urea Nitrogen (BUN) Uric Acid	- 2 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form.

TEST NO.	TEST TYPE	REQUIREMENTS
954	LUPUS ERYTHEMATOSUS PANEL Antinuclear Antibodies Centromere Antibodies Complement Component C3 Complement Component C4 DNA Antibodies, Native Mitochondrial Antibodies Myocardial Antibodies Parietal Cell Antibodies Reticulin Antibodies Rheumatoid Arthritis Precipitin Scleroderma Antibody Skeletal Muscle Antibody Smooth Muscle Antibodies Thyroid Microsomal Antibody Sm and RNP Antibodies Sjögren's Antibodies	- 18 mL Serum - Plastic vial (5 spun barrier tubes). - Two 1 mL aliquots of Frozen Serum - Plastic vial (spun barrier tubes). Allow specimen to clot at room temperature for at least 1 hour. Within 2 hours of collection, centrifuge specimen at 4°C. Separate serum from cells and transfer serum to plastic vials (spun barrier tubes). Freeze immediately. Avoid hemolysis.
970	LYMPHADENOPATHY PANEL Adenovirus Antibodies Cytomegalovirus IgG Antibody (CMV) Epstein-Barr Virus (EBV) Antibodies, Comprehensive Herpes Simplex Virus IgG Antibody (HSV) Rubella Virus IgG Antibody Toxoplasma IgG Antibody	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
971	Acute and Convalescent LYMPHOCYTE MARKER STUDIES	See Tissue Immunohistochemistry.
972	MACROCYTIC ANEMIA PROFILE Reticulocyte Cell Count Folic Acid Vitamin B12	- 2 mL Frozen Serum - Plastic vial (1 spun barrier tube). Avoid hemolysis. Fasting specimen preferred. Separate serum from clot, transfer to plastic vial and freeze within 1 hour of collection. - 7 mL EDTA Whole Blood - 1 full lavender top tube.
973	MACULOPAPULAR RASH EVALUATION Adenovirus Antibodies Rubella Virus IgG Antibody Rubeola Virus IgG Antibody	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
974	Acute and Convalescent	See Tissue Immunohistochemistry.

TEST NO.	TEST TYPE	REQUIREMENTS
929	MEGALOBLASTIC ANEMIA PROFILE Folic Acid Vitamin B12	- 2 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen preferred. Separate serum from the clot, transfer to plastic vial (spun barrier tube), and freeze within one hour following collection. Avoid hemolysis.
928	MICROCYTIC ANEMIA PROFILE Iron, Total, Iron Binding Capacity and % Saturation C-Reactive Protein Hemoglobin A2 by Ion Exchange Chromatography Ferritin	- 8 mL Serum - Plastic vial (2 spun barrier tubes). Avoid hemolysis. - 2 mL EDTA Whole Blood (lavender top tube) - Plastic vial (1 spun barrier tube).
977	MULTIPLE SCLEROSIS PANEL, BASIC Myelin Basic Protein Oligoclonal Banding	- 5 mL Frozen CSF - Plastic vial (1 spun barrier tube). - 1 mL Serum - Plastic vial (1 spun barrier tube).
978	MULTIPLE SCLEROSIS PROFILE, COMPREHENSIVE Myelin Basic Protein Oligoclonal Banding IgG Synthesis and Index	- 6 mL Frozen CSF - Plastic vial (2 spun barrier tubes). - 2 mL Frozen Serum - Plastic vial (1 spun barrier tube).
979	MUMPS EVALUATION Mumps (Soluble Antigen) Antibodies Mumps (Viral Antigen) Antibodies	- 2 mL Serum - Plastic vial (1 spun barrier tube).
980	MYASTHENIA GRAVIS EVALUATION Acetylcholine Receptor Antibodies Skeletal Muscle Antibodies	- 2 mL Serum - Plastic vial (1 spun barrier tube). Please indicate if specimen is from patient who is immunosuppressed.
981	MYOCARDIAL ANTIBODIES PANEL Myocardial IgG Antibody Myocardial IgM Antibody	- 1 mL Serum - Plastic vial (1 spun barrier tube).
982	MYOCARDIAL INFARCTION EVALUATION Creatine Kinase Isoenzymes Creatine Kinase, Total Lactate Dehydrogenase, Total Lactate Dehydrogenase Isoenzymes	- 3 mL Frozen Serum - Plastic vial (1 spun barrier tube). - 2 mL Serum - Plastic vial (1 spun barrier tube). Avoid hemolysis. Do not freeze or refrigerate 2 mL aliquot of serum.

TEST NO.	TEST TYPE	REQUIREMENTS
	MYOCARDITIS EVALUATION	See Coxsackie B Virus Antibodies in the General Listing Section.
983	OLDER ADULT PROFILE I CBC, Platelet Count and Differential Chemistry Screen Plus C-Reactive Protein Protein Electrophoresis T-4 (Thyroxine), Total T Uptake FTI (Calculated)	- EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 6 mL Serum - Plastic vial (2 spun barrier tubes). - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to test. Centrifuge specimen within 30-60 minutes following collection. State patient's age and sex on test request form.
984	OLDER ADULT PROFILE II CBC, Platelet Count and Differential Chemistry Screen Plus C-Reactive Protein Protein Electrophoresis T-4 (Thyroxine), Total T Uptake FTI (Calculated) Urinalysis, Routine	- EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 6 mL Serum - Plastic vial (2 spun barrier tubes). - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to test. Centrifuge specimen within 30-60 minutes following collection. State patient's age and sex on test request form. - 10 mL Urine - Yellow screw-cap tube containing preservative.
985	PARAINFLUENZA TYPES 1-3 VIRUS ANTIBODIES	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
986	Acute and Convalescent	See General Listing Section for Reference Range information.
950	PEDIATRIC PROFILE Chem Screen Plus CBC & Differential Hgb Electrophoresis ZPP IgE TSH T Uptake T4 FTI (Calculated)	- EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 6 mL Serum - Plastic vial (2 spun barrier tubes). - 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast for 12-16 hours prior to test. Centrifuge specimen within 30-60 minutes following collection. State patient's age and sex on test request form. - 10 mL Urine - Yellow screw-cap tube containing preservative.

TEST NO.	TEST TYPE	REQUIREMENTS
951	PITUITARY PANEL	- 2 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form.
987	PLATELET ANTIBODIES PANEL Immunoglobulin G, Platelet Associated Platelet Antibodies	- 1 mL Serum - Plastic vial (1 spun barrier tube). - 20 mL Whole Blood (two 10 mL yellow top ACD-A Vacutainer™ tubes anticoagulated in acid citrate dextrose). Ship immediately at 4°C or room temperature. Specimen must be received within 24 hours.
989	PRENATAL BASIC ABO Group & Rh Type Coombs, Indirect (Antibody Screen) CBC, Platelet Count and Differential Hepatitis B Surface Antigen Rapid Plasma Reagin (RPR) Rubella Virus IgG Antibody	- Blood - 2 full 10 mL red top tubes. - EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 5 mL Serum - Plastic vial. Do not collect in serum separator tubes. Label specimens clearly with patient name, client and lab numbers.
925	PRENATAL COMPREHENSIVE ABO Group & Rh Type CBC, Platelet Count and Differential Coombs, Indirect (Antibody Screen) Hepatitis B Surface Antigen Rubella Virus IgG Antibody Toxoplasma IgM Antibody	- Blood - 2 full 10 mL red top tubes. - EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 6 mL Serum - Plastic vial (2 spun barrier tubes). Do not collect in serum separator tubes. Label specimens clearly with patient name, client and lab numbers.
953	PROSTATE DIAGNOSTIC PROFILE Prostate Specific Antigen Acid Phosphatase Prostatic	- 1 mL Frozen Serum - Plastic vial (1 spun barrier tube). - 2 mL Serum - Plastic vial (1 spun barrier tube).
991	PROTEIN C AND S PANEL Protein C Protein S	- 2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze.

TEST NO.	TEST TYPE	REQUIREMENTS
994	RED CELL BIOCHEMICAL PANEL Adenosine Deaminase Adenylate Kinase Aldolase Diphosphoglycerate Mutase Enolase Glucose Phosphate Isomerase Glucose 6-Phosphate Dehydrogenase Glutathione Peroxidase Glutathione Reductase with FAD Glyceraldehyde Phosphate Dehydrogenase Glycerophosphate Dehydrogenase GOT with PLP GSH Hexokinase Lactate Dehydrogenase Monophosphoglycerate Mutase Phosphofructokinase (PFK) Phosphofructokinase (Low S) Phosphofructokinase (Low S and ADP) 6-Phosphogluconate Dehydrogenase Pyrimidine 5' Nucleotidase Pyruvate Kinase (PK) Pyruvate Kinase (Low S) Pyruvate Kinase (Low S and FDP) Triose Phosphate Isomerase Unstable Hemoglobin	- EDTA Whole Blood - 1 full lavender top tube. Ship on wet ice. Do not freeze. Include patient's hematocrit, hemoglobin, red cell count and reticulocyte count.
995	RESPIRATORY VIRUS EVALUATION (PEDIATRIC) Adenovirus Antibodies Parainfluenza Types 1-3 Virus Antibodies Respiratory Syncytial Virus Antibodies	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
996	Acute and Convalescent	
997	RESPIRATORY VIRUS EVALUATION (ADULT) Adenovirus Antibodies Influenza Type A Virus Antibodies Influenza Type B Virus Antibodies	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
998	Acute and Convalescent	

TEST NO.	TEST TYPE	REQUIREMENTS
999	REYE'S SYNDROME EVALUATION Influenza Type A Virus Antibodies Influenza Type B Virus Antibodies Varicella-Zoster IgG Virus Antibody	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
2115	Acute and Convalescent	
2116	SECONDARY AMENORRHEA PANEL Follicle Stimulating Hormone Luteinizing Hormone Prolactin	- 5 mL Serum - Plastic vial (1 spun barrier tube). State patient's age and sex on the test request form.
904	SMAC A/G Ratio (Calculated) Glucose Alanine Aminotransferase (ALT) Lactate Dehydr- Albumin ogenase (LD) Alkaline Phosphatase Phosphorus, Aspartate Transaminase (AST) Inorganic Bilirubin, Total Potassium BUN/Creatinine Protein, Total Ratio (Calculated) Sodium Calcium Carbon Dioxide Triglycerides Chloride Urea Nitrogen Cholesterol, Total (BUN) Creatinine Uric Acid Globulin, Total	- 3 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Centrifuge within 30-60 minutes following collection. Patient should fast 12-16 hours prior to collection. State patient's age and sex on the test request form. (Note fasting or hours postprandial on request form.)
	SEMEN ANALYSIS	See General Listing section.
	SPERM ANTIBODY PANEL	See General Listing section.
	SUBSTANCE ABUSE PANELS	See Drug Testing section.
2117	TESTICULAR TUMOR PANEL (Germ Cell) Alpha-Fetoprotein, Tumor Marker Chorionic Gonadotropin, Total (Tumor Marker)	- 2 mL Serum - Plastic vial (1 spun barrier tube).
	THYROID AUTOANTIBODIES	See General Listing section.

TEST NO.	TEST TYPE	REQUIREMENTS
2118	THYROIDITIS PROFILE T Uptake T-4 (Thyroxine), Total Free T-4 Thyroglobulin Antibodies Thyroid Microsomal Antibodies Thyroid Stimulating Hormone	- 8 mL Serum - Plastic vial (2 spun barrier tubes).
8919	THYROID PROFILE, COMPREHENSIVE T-4 (Thyroxine), Total T Uptake Free T-4 Thyroid Stimulating Hormone T3, Total	- 8 mL Serum - Plastic vial (2 spun barrier tubes).
932	THYROID PANEL T Uptake T-4 (Thyroxine), Total FTI	- 4 mL Serum - Plastic vial (1 spun barrier tubes). See General Listing for Reference Range information.
927	THYROID PANEL, HYPER T-4 (Thyroxine) T Uptake FTI (Calculated) Triiodothyronine (T3)	- 2 mL Serum - Plastic vial (1 spun barrier tube).
938	THYROID PANEL, HYPO T-4 (Thyroxine) T Uptake FTI Thyroid Stimulating Hormone (TSH)	- 4 mL Serum - Plastic vial (1 spun barrier tube).
2122	TISSUE ANTIBODY PANEL Antinuclear Antibodies Mitochondrial Antibodies Myocardial Antibodies Parietal Cell Antibodies Reticulin Antibodies Skeletal Muscle Antibodies Smooth Muscle Antibodies Thyroid Microsomal Antibodies	- 2 mL Serum - Plastic vial (1 spun barrier tube).

TEST NO.	TEST TYPE	REQUIREMENTS
2125	TORCH IgG PANEL Cytomegalovirus, IgG Antibody (CMV) Herpes Simplex Types 1 and 2 Virus IgG Antibody Rubella Virus IgG Antibody Toxoplasma IgG Antibody	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: To evaluate congenital and neonatal infections in young infants, we recommend submitting both maternal and infant (< 2 months of age) specimens using separate test request form.
2126	Acute and Convalescent NOTE: This panel is used to detect congenital and perinatal infection in young infants. Any agents for which the pair are both seronegative are very unlikely to have infected the infant. If the infant's serum titer is lower than the mother's serum titer for any agent, congenital infection with that agent is also considered unlikely. If maternal and infant serum titers are the same, a second serum from the infant should be submitted one to two months later, to be tested and compared to the earlier titer. The second serum should show a decrease in titer relative to the first, if the infant has not been congenitally infected with the agent tested.	
2127	TORCH IgM PANEL Cytomegalovirus IgM Antibody (CMV) Herpes Simplex Types 1 and 2 Virus IgM Antibody Rubella Virus IgM Antibody Toxoplasma IgM Antibody	- 2 mL Serum - Plastic vial (1 spun barrier tube).
	TOXICOLOGY DRUG SCREEN	See Toxicology/Therapeutic Drug Monitoring section.
2128	UROGENITAL EVALUATION Cytomegalovirus IgG Antibody (CMV) Herpes Simplex Types 1 and 2 Virus IgG Antibody (HSV)	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
2129	Acute and convalescent	
2130	VESICULAR RASH EVALUATION Herpes Simplex Types 1 and 2 Virus IgG Antibody (HSV) Varicella-Zoster Virus IgG Antibody (VZV)	- 2 mL Serum - Plastic vial (1 spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.
2131	Acute and convalescent	
2132	VIRILIZATION PANEL Androstenedione Dehydroepiandrosterone Sulfate Testosterone, Free and Weakly Bound	- 3 mL Serum - Plastic vial (1 spun barrier tube). A.M. specimen preferred. Indicate patient's age and sex on the specimen container and the test request form.
	VITAMIN B12/FOLATE	See Megaloblastic Anemia Panel.

TEST NO.	TEST TYPE	REQUIREMENTS
2133	VOLATILES, BLOOD Acetone Alcohol, Ethyl Alcohol, Isopropyl Alcohol, Methyl	- 5 mL Fluoridated and Oxalated Blood - 1 full gray top tube. Do not use alcoholic solutions as a skin preparation for drawing specimens. We suggest using a nonalcoholic solution such as Betadine® or Zephiran®.
2134	VOLATILES, URINE QUALITATIVE Acetone Alcohol, Ethyl Alcohol, Isopropyl Alcohol, Methyl	- 5 mL Random Urine - Plastic container. Cap tightly.
	VON WILLEBRAND'S DISEASE EVALUATION	See Coagulation Factor VIII Activity/von Willebrand Panel.
2135	WELLNESS PROFILE #1 Chem Plus CBC, Platelet Count and Differential T Uptake T-4 (Thyroxine), Total FTI	- EDTA Whole Blood - 1 full lavender top tube. Two air-dried blood smears are requested but not required. - 7 mL Serum - Plastic vial (spun barrier tube). Fasting specimen required. Centrifuge within 30-60 minutes following collection. Patient should fast for 12-16 hours prior to collection. State patient's age and sex on the test request from.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0001	A1 HEMOGLOBIN BLOOD	1 lavender top tube (EDTA). Elevated levels are seen in Beta Thalassemia	2.0-3.5% (Liquid Chromatography)
0002	ABO ANTIBODY TITER	10 mL Clotted Blood - 1 full red top tube. Do not collect serum in separator tube. Label tube clearly with patient name and identification number.	Anti A: > 1:32 Anti B: > 1:8 (Immune Agglutination)
0003	ABO GROUP (BLOOD GROUP)	10 mL Blood - 1 full red top tube. Do not collect serum in separator tube. Label tube clearly with patient name and identification number.	See laboratory report (Immune Agglutination)
0004	ABSOLUTE EOSINOPHIL COUNT, BLOOD	1 lavender top tube (EDTA). Do not mail.	1-423 cells/cu.mm (Enzyme Cytochemistry)
0005	ABO GROUP AND Rh TYPE (BLOOD TYPE)	10 mL Blood - 1 full red tube. Do not collect in serum separator tube. Label tube clearly with patient name and identification number.	See laboratory report (Immune Agglutination)
0006	ACE (ANGIOTENSIN-1- CONVERTING ENZYME)	1 ml Serum - Plastic vial (spun barrier tube).	8-52 U/L (Spectrophotometry)
0007	ACETALDEHYDE	7 mL Fluoridated and Oxalated Blood - 1 full gray top tube. Cleanse arm with a non- alcoholic solution such as Betadine® or Zephiran®.	<2.0 mg/L (Gas Chromatography)
0008	ACETAMINOPHEN (TYLENOL®) SERUM	1 mL serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 10-20 mg/L Toxicity may result when acetaminophen is > 200 mg/L four hours after ingestion or half life value exceeds four hours. (Immunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0009	URINE/GASTRIC FLUID	5 mL Urine/Gastric Fluid - Plastic container.	None detected (Colorimetry/Thin-Layer Chromatography)
0010	ACETAZOLAMIDE (DIAMOX®) SERUM	3mL Serum - Plastic vial (spun barrier tube).	Therapeutic: 10-15 mcg/mL Toxic: >20 mcg/mL (High Pressure Liquid Chromatography)
0011	URINE	2 mL Urine - Plastic vial.	Following administration of oral tablets or intravenous injection 70-100% (average 90%) of the dose is excreted in urine within 24 hours; following administration of sustained release capsules, 47% of the dose is excreted in the urine within 24 hours. (High Pressure Liquid Chromatography)
0012	ACETONE BLOOD	5 mL Fluoridated and Oxalated Whole Blood - 1 full gray top tube.	Normal: None detected. Potentially Toxic: >200 mg/L (Gas Chromatography)
0013	URINE/GASTRIC FLUID QUALITATIVE	5 mL Urine/Gastric Fluid - Plastic container.	None detected (Gas Chromatography)
0014	ACETOACETATE, PLASMA	2 mL plasma (sodium fluoride) - grey top tube. Separate plasma and FREEZE immediately in a plastic vial; place in specimen envelope with "FROZEN SPECIMEN" label applied and transport frozen.	< 0.20 mmol/L (Enzymatic, Kinetic)
0015	ACETYLCHOLINE RECEPTOR ANTIBODIES (ACHR)	2 mL Serum - Plastic vial (spun barrier tube). Indicate if sample is from an immunosuppressed patient.	< 0.5 nmol/L (Radioreceptor)
0016	ACETYLCHOLINESTERASE (CHOLINESTERASE, ACETYL)	2 mL Frozen Amniotic Fluid - Plastic vial.	None detected (Gel Electrophoresis)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0017	ACID FAST SMEAR	2 Air-Dried Smears. Do not fix. Print patient's name with a pencil on frosted end of slide.	No Acid Fast Bacilli seen (Fluorochrome Stain)
0018	ACID FAST SMEAR FOR SPUTUM (CULTURE, ACID FAST BACILLI, SPUTUM)	Collect sputum using a sputum collection kit. Remove and cap conical tube. Send conical tube to laboratory. Do not send entire kit. Antibiotic sensitivities will be performed on <u>M. tuberculosis</u> isolates at an additional charge.	No Acid Fast Bacilli recovered. Cultures incubated for 8 weeks before determined to be negative. Cultures showing no growth from smear-positive specimens require additional incubation. Positive isolates are identified by conventional methods or nucleic acid hybridization, when appropriate.
0019	ACID HEMOLYSIN TEST, BLOOD (HAM'S TEST)	1 red top tube (Do not use spun barrier tube) and 1 lavender top tube (EDTA). Positive in Paroxysmal Nocturnal Hemoglobinuria (PNH).	No hemolysis seen (Acid Serum Lysis)
0020	ACID PHOSPHATASE PROSTATIC	1 mL Frozen Serum - Plastic vial (spun barrier tube). Do not acidify. Ship frozen on dry ice. Avoid hemolysis.	Normal: <4.0 ng/mL (Radioimmunoassay)
0021	TOTAL	3 mL Frozen Serum - Plastic vial (spun barrier tube).	Male: 2.2-10.5 IU/L Female: 0.2-9.4 IU/L (Spectrophotometry)
0022	TOTAL AND TARTRATE-INHIBITED	3mL Frozen Serum - Plastic vial (spun barrier tube).	Total: See above Tartrate-inhibited fraction Male: 0.2-3.5 U/L Female: 0.0-0.8 U/L (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD						
0023	ACTH (ADRENOCORTICOTROPIC HORMONE)	2 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial. Draw in prechilled EDTA tube. Centrifuge immediately. Transfer plasma to plastic vial as soon as possible and freeze immediately. Do not use heparinized plasma.	<70 pg/mL (Radioimmunoassay)						
0024	ACTIVATED PARTIAL THROMBOPLASTIN TIME (APTT, PTT)	<p>Non-heparinized patient: Citrate Whole Blood - 1 full blue top tube. Mix gently. Maintain specimen at room temperature. Do not uncap. Correct ratio of blood to citrate (9:1) is critical. Stable 24 hours at room temperature. If specimen will be delayed longer than 24 hours follow instructions below.</p> <p>Heparinized patient: 2 mL Frozen Citrated Plasma (blue top tube) - Plastic vial. Mix gently. Centrifuge specimen within one hour after collection. Transfer plasma to a plastic vial and hard freeze at -20°C immediately. Correct ratio of blood to citrate (9:1) is critical.</p>	See laboratory report (Photo Optical and/or Mechanical Clot Detection)						
0025	ADAPIN® (DOXEPIN [Sinequan®]) (INCLUDES NORDOXEPIN METABOLITE) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<table> <tr> <td><u>Total</u></td> <td><u>mcg/L</u></td> </tr> <tr> <td>Therapeutic:</td> <td>100-250</td> </tr> <tr> <td>Potentially Toxic:</td> <td>>300</td> </tr> </table> (High Pressure Liquid Chromatography)	<u>Total</u>	<u>mcg/L</u>	Therapeutic:	100-250	Potentially Toxic:	>300
<u>Total</u>	<u>mcg/L</u>								
Therapeutic:	100-250								
Potentially Toxic:	>300								
	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)						

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD								
0026	ADDIS COUNT	20 mL Urine - Plastic container. Aliquot from a well-mixed, 12-hour, overnight collection. Collect in a container which has been rinsed with 10% buffered formalin. Record total volume on both the specimen container and the test request form.	<table> <tr> <td><u>Adults</u></td> <td><u>per 12 hours</u></td> </tr> <tr> <td>Casts:</td> <td>0-5,000</td> </tr> <tr> <td>RBC:</td> <td>0-500,000</td> </tr> <tr> <td>WBC:</td> <td>0-1,000,000</td> </tr> </table> (Microscopy)	<u>Adults</u>	<u>per 12 hours</u>	Casts:	0-5,000	RBC:	0-500,000	WBC:	0-1,000,000
<u>Adults</u>	<u>per 12 hours</u>										
Casts:	0-5,000										
RBC:	0-500,000										
WBC:	0-1,000,000										
0027	ADENOVIRUS ANTIBODIES	1 mL Serum - Plastic vial (spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggests an infection at some undetermined time in the past. (Complement Fixation)								
0028	ADH (ANTIDIURETIC HORMONE, VASOPRESSIN)	Two 3 mL aliquots of Frozen EDTA Plasma - Plastic vials. Draw into chilled lavender top tubes. Separate plasma immediately into plastic vials. Freeze and tape vials together. Serum osmolality required for interpretation. Order separately - see Osmolality, Serum.	<table> <tr> <td>ADH</td> <td>Osmolality</td> </tr> <tr> <td><u>pg/mL</u></td> <td><u>mOsm/kg</u></td> </tr> <tr> <td><2</td> <td><285</td> </tr> <tr> <td>2-12</td> <td>>290</td> </tr> </table> (Radioimmunoassay)	ADH	Osmolality	<u>pg/mL</u>	<u>mOsm/kg</u>	<2	<285	2-12	>290
ADH	Osmolality										
<u>pg/mL</u>	<u>mOsm/kg</u>										
<2	<285										
2-12	>290										
0029	ADRENAL ANTIBODIES (ANTI-ADRENAL ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)								
0030	ADRENALINE AND NORADRENALINE, PLASMA (CATECHOLAMINES) FRACTIONATED URINE	30 mL Frozen Urine - Plastic container. Aliquot from a well-mixed, 24 hour collection. Add 25 mL 6N HCl* to collection container at start of collection. Record total volume on both the specimen container and the test request form.	<table> <tr> <td></td> <td><u>mcg/24 hrs</u></td> </tr> <tr> <td>Norepinephrine:</td> <td>11-86</td> </tr> <tr> <td>Epinephrine:</td> <td><15</td> </tr> <tr> <td>Dopamine:</td> <td>100-440</td> </tr> </table> (High Pressure Liquid Chromatography)		<u>mcg/24 hrs</u>	Norepinephrine:	11-86	Epinephrine:	<15	Dopamine:	100-440
	<u>mcg/24 hrs</u>										
Norepinephrine:	11-86										
Epinephrine:	<15										
Dopamine:	100-440										

*Prepare by diluting concentrated HCl with an equal volume of water.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0031	FRACTIONATED & TOTAL PLASMA	5 mL Frozen Heparinized Plasma (green top tube) - Plastic vial. Collect blood after the patient is supine for 30 minutes. Place green top tube in an ice bath. Centrifuge at 1000xg for 20 minutes at 2-4°C. The plasma must be free of erythrocytes. Transfer to plastic vial. Freeze and store on dry ice for transportation.	<p><u>Supine (30 Minutes)</u> <u>pg/mL</u> Norepinephrine: 110-410 Epinephrine: <50 Dopamine: <87 Total: 120-450</p> <p><u>Sitting</u> <u>pg/mL</u> Norepinephrine: 120-680 Epinephrine <60 Dopamine: <87 Total: 140-730</p> <p><u>Standing (30 minutes)</u> <u>pg/mL</u> Norepinephrine: 125-700 Epinephrine: <90 Dopamine: <87 Total: 150-750 (High Pressure Liquid Chromatography)</p>
0032	ADRENOCORTICOTROPIC HORMONE	See ACTH.	
0033	ADVIL, SERUM (IBUPROFEN, SERUM)	4 mL serum (spun barrier tube). Half-life: 0.9-2.5 hours.	Therapeutic range: 20-70 mcg/mL (Liquid Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																					
0034	AFP (ALPHA-FETOPROTEIN) AMNIOTIC FLUID (AFAFP)	<p>1 mL Amniotic Fluid - Plastic vial. Avoid hemolysis. Indicate specimen type and weeks of gestation on both the specimen container and the AFP test request form.</p> <p>Acetylcholinesterase (AChE) will be performed on all specimens with elevated AFP, at an additional charge.</p> <p>AFAFP Reference Range Values exceeding 2.0 multiples of median (MOM) are considered increased risk.</p> <p>Gestational</p> <table border="1"> <thead> <tr> <th>Age (Weeks)</th> <th>Median (mcg/mL)</th> <th>2.0 MOM</th> </tr> </thead> <tbody> <tr> <td>15</td> <td>16.3</td> <td>32.6</td> </tr> <tr> <td>16</td> <td>14.5</td> <td>29.0</td> </tr> <tr> <td>17</td> <td>13.4</td> <td>26.8</td> </tr> <tr> <td>18</td> <td>12.0</td> <td>24.0</td> </tr> <tr> <td>19</td> <td>20.0</td> <td>21.4</td> </tr> <tr> <td>20</td> <td>8.1</td> <td>16.2</td> </tr> </tbody> </table>	Age (Weeks)	Median (mcg/mL)	2.0 MOM	15	16.3	32.6	16	14.5	29.0	17	13.4	26.8	18	12.0	24.0	19	20.0	21.4	20	8.1	16.2	<p>The AFP concentration in amniotic fluid depends on gestational age. The reference range derived from a recent SBCL study of various population segments is given below.</p> <p>(Enzyme Immunoassay)</p>
Age (Weeks)	Median (mcg/mL)	2.0 MOM																						
15	16.3	32.6																						
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0035	MATERNAL SERUM (MSAFP)	<p>1 mL Serum - Plastic vial (spun barrier tube). Indicate specimen type and weeks of gestation on both the specimen container and the AFP test request form.</p> <p>See MSAFP Reference Range.</p>	<p>The AFP concentration in maternal serum depends on gestational age. Risks for Down Syndrome are calculated using patient's age and multiple of median (MOM). The reference range derived from a recent SBCL study of various population segments is given below.</p> <p>(Enzyme Immunoassay)</p>																					

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																		
		MSAFP Reference Range 0.5-2.0 MOM (0.5-1.4 MOM for insulin-dependent diabetics) For Down Syndrome, the lower cut-off may vary with patient's age.																			
		<table> <thead> <tr> <th>Gestational Age (Weeks)</th> <th>Median (ng/mL)</th> </tr> </thead> <tbody> <tr><td>14</td><td>25.6</td></tr> <tr><td>15</td><td>29.9</td></tr> <tr><td>16</td><td>34.8</td></tr> <tr><td>17</td><td>40.6</td></tr> <tr><td>18</td><td>47.3</td></tr> <tr><td>19</td><td>55.1</td></tr> <tr><td>20</td><td>64.3</td></tr> <tr><td>21</td><td>74.9</td></tr> </tbody> </table>	Gestational Age (Weeks)	Median (ng/mL)	14	25.6	15	29.9	16	34.8	17	40.6	18	47.3	19	55.1	20	64.3	21	74.9	
Gestational Age (Weeks)	Median (ng/mL)																				
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21	74.9																				
0036	TUMOR MARKER (MALES AND NON-PREGNANT FEMALES)	1 mL Serum - Plastic vial (spun barrier tube). Indicate specimen type on both the specimen container and the test form. In addition, include the comment "non-pregnant" for all female samples.	<8.5 ng/mL (Enzyme Immunoassay)																		
0037	A/G RATIO, SERUM (Includes: A/G Ratio, Albumin, Globulin and Total Protein)	2 mL Serum - Plastic vial (spun barrier tube)	A/G Ratio: 1.1-2.3 Albumin: 3.7-5.0gm/dL Globulin: 2.1-3.6gm/dL Total Protein: 6.4-8.1gm/dL (Calculation Albumin and Total Protein performed by Colorimetry).																		
0038	AGGLUTININS, COLD (COLD HEMAGGLUTININS)	2 mL Serum - Plastic vial (spun barrier tube). Allow specimen to clot at 37°C for 1 hour. Centrifuge and separate serum from cells immediately.	Titer >1:40 is considered elevated. Elevated levels of cold agglutinins are found in 34-36% of <i>M. pneumoniae</i> infections; however, cold agglutinins are also seen in other unrelated conditions. (Hemagglutination)																		

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0039	AGGLUTININS, FEBRILE (FEBRILE AGGLUTININS) (Includes Typhoid O,H; Paratyphoid A,B; Proteus OX 19; and Brucella Abortus)	1 mL serum - Plastic vial (spun barrier tube).	≤ 1:80 (Agglutination)
0040	ALA (AMINOLEVULINIC ACID)	10 mL Urine - Plastic container. Aliquot from a well-mixed, 24 hours collection. Acidify with 2 drops of 6N HCl* or freeze. If porphobilinogen is also requested, do not use acid. Record total volume on both the specimen container and the test request form. * Prepare by diluting concentrated HCl with an equal volume of water.	1.3-7.0 mg/24 hrs (Column Chromatography and Spectrophotometry)
0041	ALANINE AMINOTRANSFERASE (ALT, SGPT)	2 mL Serum - Plastic vial (spun barrier tube).	0-55 U/L (Spectrophotometry)
0042	ALANINE, QUANTITATIVE, SERUM	1 mL serum. Separate and FREEZE serum immediately in a plastic vial (spun barrier tube); place in specimen envelope with "FROZEN SPECIMEN" label applied and transport frozen.	1-2 yr: 99-313 mmol/L 3-10 yr: 134-305 mmol/L Adult: 200-660 mmol/L Lowest Reportable Result: 1.00 mmol/L (Automated Ion-Exchange Chromatography)
0043	ALBUMIN CSF	1 mL CSF - Plastic vial.	15-35 mg/dL (Nephelometry)
0044	GLYCOSYLATED ALBUMIN	1 mL Plasma (lavender top tube) - Plastic vial (spun barrier tube). Frozen heparinized plasma (green top tube) also acceptable. Serum is not acceptable.	1.5-2.6% of Total Serum Albumin (Column Chromatography and Nephelometry)
0045	SERUM	2 mL Serum - Plastic vial (spun barrier tube).	3.2-5.5 g/dL (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0046	URINE QUALITATIVE (URINALYSIS)	10 mL Urine - Yellow screw-cap tube containing preservative. Please indicate on tube if specimen is from a pediatric patient. Stable 3 days at room temperature, if preserved.	See Urinalysis, Routine
0049	ALCOHOL, ETHYL (ETHANOL) BLOOD	5 mL Fluoridated and Oxalated Whole Blood - 1 full gray top tube. Do not use alcoholic solutions as a skin preparation for drawing specimens. Use nonalcoholic solutions such as Betadine® or Zephiran®.	Normal: None detected Potentially Toxic: >0.20 g/dL (%) (Enzymatic/Gas Chromatography)
0050	URINE QUANTITATIVE	5 mL Urine - Plastic container.	None detected (Gas Chromatography)
0051	URINE/GASTRIC FLUID QUALITATIVE	5 mL Urine/Gastric Fluid - Plastic container.	None detected (Gas Chromatography)
0052	VITREOUS HUMOR	1 mL Fluoridated and Oxalated Vitreous Humor - Gray top tube. Use pediatric gray top tube.	None detected (Gas Chromatography)
0053	ALCOHOL, ISOPROPYL (ISOPROPANOL) (INCLUDES ACETONE METABOLITE) BLOOD	5 mL Fluoridated and Oxalated Whole Blood - 1 full gray top tube. Do not use alcoholic solutions as a skin preparation for drawing specimens. Use a nonalcoholic solution such as Betadine® or Zephiran®.	<u>Alcohol Isopropyl</u> Normal: None detected Potentially Toxic: Any detectable amount <u>Acetone</u> Normal: None detected Potentially Toxic: >200 mg/L (Gas Chromatography)
0054	URINE/GASTRIC FLUID QUALITATIVE	5 mL Urine/Gastric Fluid - Plastic container.	None detected (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0055	ALCOHOL, METHYL (METHANOL) BLOOD	5 mL Fluoridated and Oxalated Whole Blood - 1 full gray top tube. Do not use alcoholic solutions as a skin preparation for drawing specimens. Use a nonalcoholic solution such as Betadine® or Zephiran®.	Normal: None detected. Potentially Toxic: Any detectable amount (Gas Chromatography)
0056	URINE/GASTRIC FLUID QUALITATIVE	5 mL Urine/Gastric Fluid - Plastic Container.	None detected (Gas Chromatography)
0057	ALDOLASE	2 mL Frozen Serum - Plastic vial (spun barrier tube).	See laboratory report (Enzymatic)
0058	ALDOSTERONE SERUM	1 mL Serum - Plastic vial (spun barrier tube). Heparinized plasma (green top tube) also acceptable. Separate cells within 30 minutes.	Normal Sodium Intake (100-200 mEq/L) Supine: <16 ng/dL Upright: 4-31 ng/dL (Radioimmunoassay)
0059	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Acidify to pH 3-5 with glacial acetic acid. Record total volume on both the specimen container and the test request form.	2-19 mcg/24 hrs (Normal sodium intake) (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																							
0060	ALKALINE PHOSPHATASE BY HEAT FRACTIONATION	3 mL Serum - Plastic vial (spun barrier tube). Reference Range <u>% Thermostable</u> <25% Indicates skeletal disease with increased osteoblastic activity 25-35% Indicates a combination of hepatic and skeletal diseases >35% Indicates hepatic disease When total activity of alkaline phosphatase is within normal limits, the percent thermostable fraction has no clinical significance.	See below (Spectrophotometry)																							
0061	ISOENZYMES	3 mL Serum - Plastic vial (spun barrier tube).	See laboratory report (Electrophoresis)																							
0062	LEUKOCYTE	Six Unfixed Air-Dried Fresh Blood Smears. Submit same day as prepared. Do not use EDTA Blood (lavender top tube).	Cell Score: 11-95 (Cytochemistry)																							
0063	TOTAL	2 mL Serum - Plastic vial (spun barrier tube).	<table border="1"> <thead> <tr> <th rowspan="2">Age</th> <th colspan="2">U/L</th> </tr> <tr> <th>Male</th> <th>Female</th> </tr> </thead> <tbody> <tr> <td>Newborn</td> <td>40-300</td> <td>40-300</td> </tr> <tr> <td>1 wk-2yrs</td> <td>50-270</td> <td>50-270</td> </tr> <tr> <td>3-11 yrs</td> <td>60-417</td> <td>60-417</td> </tr> <tr> <td>12-15yrs*</td> <td>60-500</td> <td>60-350</td> </tr> <tr> <td>16-18yrs*</td> <td>30-224</td> <td>30-164</td> </tr> <tr> <td>>19 yrs</td> <td>20-140</td> <td>20-140</td> </tr> </tbody> </table> <p>*In individuals between 12-18 years of age, alkaline phosphatase levels vary according to periods of maximum bone growth. (Spectrophotometry)</p>	Age	U/L		Male	Female	Newborn	40-300	40-300	1 wk-2yrs	50-270	50-270	3-11 yrs	60-417	60-417	12-15yrs*	60-500	60-350	16-18yrs*	30-224	30-164	>19 yrs	20-140	20-140
Age	U/L																									
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16-18yrs*	30-224	30-164																								
>19 yrs	20-140	20-140																								

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0064	ALLERSCAN™	0.3 mL Serum per Allerscan - Plastic vial (spun barrier tube). See Panels and Profiles section for additional information.	None detected (Radioallergosorbent)
0065	ALLYLBARBITURIC ACID (BUTALBITAL) (FIORINAL®) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 1.0-5.0 mg/L Potentially Toxic: >7.0 mg/L (Gas Chromatography)
0066	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0067	ALPHA-1-ACID GLYCOPROTEIN (OROSOMUCOID)	1 mL Serum - Plastic vial (spun barrier tube).	35-140 mg/dL (Nephelometry)
0068	ALPHA-1-ANTITRYPSIN	1 mL Serum - Plastic vial (spun barrier tube).	93-224 mg/dL (Nephelometry)
0069	ALPHA-1-ANTITRYPSIN PHENOTYPE	1 mL Frozen Serum - Plastic vial (spun barrier tube).	Phenotype MM (Isoelectric Focusing)
0070	ALPHA-1-SEROMUCOID	See Alpha-1-Acid-Glycoprotein.	
0071	ALPHA-2-ANTIPLASMIN ACTIVITY	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze.	80-120% of Normal (Fluorometry)
0072	ALPHA-2-MACROGLOBULIN	1 mL Serum - Plastic vial (spun barrier tube).	<u>mg/dL</u> Male: 120-540 Female: 90-400 Pediatric: 200-700 (Nephelometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0073	ALUMINUM DIALYSIS FLUID/WATER	10 mL Dialysis Fluid/Water - Plastic vial.	<u>mcg/L</u> Preferable: <10 Tolerable: 10-15 Peritoneal: <10 (Flameless Atomic Absorption)
0074	PLASMA	4 mL Heparinized Plasma - Plastic vial. Venoject™ needle and B-D Vacutainer™ 6541 (green top with 143 USP units sodium heparin). Transfer plasma within 2 hours to plastic vial using new disposable pipets (plastic tip or glass pasteur). If a collection tube other than the above is used, please provide this information on the test request form and include an empty tube of the type used with the specimen.	3-10 mcg/L (Flameless Atomic Absorption)
0075	AMBENYL® (DIPHENHYDRAMINE) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: Not established (Gas Chromatography)
0076	URINE/GASTRIC FLUID QUALITATIVE	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0077	AMEBIASIS, PURGED STOOL	10 grams purged stool in PVA preservative (use PVA vial from Parasitology kit). Purge patient with Fleet enema. Do not submit formed stool.	No <u>Entamoeba histolytica</u> found (Trichrome Stain)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0078	AMIKACIN (AMIKIN®)	1 mL Serum - Plastic vial. Do not collect in serum separator tube. Peak sample should be drawn 60 minutes after an intramuscular injection 30 minutes after the end of a 30-minute intravenous infusion, or within 15 minutes after a 60-minute intravenous infusion. Trough sample should be drawn immediately prior to the next dose.	<u>Therapeutic</u> <u>mg/L</u> Peak: 20.0-30.0 Trough: 4.0-8.0 <u>Potentially Toxic</u> Peak: >30.0 mg/L Trough: >8.0 mg/L (Immunoassay)
0079	PEAK TROUGH		
0080	AMINO ACID FRACTIONATION PLASMA	2 mL Frozen Heparinized Plasma (green top tube) - Plastic vial. Separate plasma from cells and freeze within 1 hour.	See Amino Acid Chromatography Chart (Column Chromatography)
0081	URINE	10 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Acidify to pH 3-5 with 6N HCl*. Record total volume on both the specimen container and test request form. NOTE: Plasma or urine may be analyzed for 1-4 amino acids only. Please specify. <small>*Prepare by diluting concentrated HCl with an equal volume of water.</small>	See Amino Acid Chromatography chart (Column Chromatography)
0082	AMINO ACID SCREEN PLASMA	2 mL Frozen Heparinized Plasma (green top tube) - Plastic vial.	See Chromatogram Report, Amino Acid Screening Chart (Thin Layer Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0083	URINE	10 mL Urine - Plastic container. Random urine or aliquot from a well-mixed, 24-hour collection. Acidify to pH 3-5 with 6N HCl*. Record total volume on both the specimen container and the test request form.	See Chromatogram Report, Amino Acid Screening Chart (Thin Layer Chromatography)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
0084	AMINOPHYLLINE® (THEOPHYLLINE)	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 10-20 mg/L Potentially Toxic: >20 mg/L (Immunoassay)
0085	AMITRIPTYLINE (ELAVIL®) (INCLUDES NORTRIPTYLINE METABOLITE) SERUM	3 ml Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic (Total): 120-250 mcg/L Potentially Toxic (Total): >500 mcg/L (Immunoassay/High Pressure Liquid Chromatography)
0086	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
0087	AMITRIPTYLINE AND NORTRIPTYLINE SERUM	3 mL serum from a red top tube. Do not use a spun barrier tube. Collect specimen 12 hours after last dose. Mean half-life, 15 hours.	Combined Therapeutic Concentration: 120-250 mcg/L Combined Toxic Range: >3.5 mcg/L (Immunoassay)
0088	QUALITATIVE, URINE	50 mL random urine in an aliquot bottle.	None detected (Thin Layer Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0089	AMMONIA	5 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial. Collect 2 full lavender top tubes. Or 5 mL Frozen Heparinized Plasma (green top tube) - Plastic vial. Use ammonia-free heparin. Chill tubes prior to collection. Centrifuge at 4°C and transfer plasma to plastic vial. Freeze immediately.	0.17-0.80 mcg/mL (Spectrophotometry)
0090	AMOBARBITAL (AMYTAL®) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube. See also Barbiturates.	Therapeutic: 3.0-12.0 mg/L Potentially Toxic: >12.0 mg/L (Gas Chromatography)
0091	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0092	AMOEBIIC ANTIBODIES (<u>E. HISTOLYTICA</u>) BY COMPLEMENT FIXATION CSF	1 mL CSF - Plastic vial. Specify specimen type and methodology.	None detected (Complement Fixation)
0093	SERUM	1 mL Serum - Plastic vial (spun barrier tube).	<1:8 (Complement Fixation)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0094	BY INDIRECT HEMAGGLUTINATION	1 mL Serum - Plastic vial (spun barrier tube).	<p><u>Titer</u> $\leq 1:8$ None detected $1:16-1:64$ Titers are considered equivocal and should be confirmed by submission of an additional specimen drawn one week after the initial specimen.</p> <p>$\geq 1:128$ Indicates active or recent amoebic infection (Indirect Hemagglutination)</p> <p>Titers of individuals currently infected with <u>E. histolytica</u> generally range from 1:256 to 1:2048.</p>
0095	AMOXAPINE (ASENDIN®) (INCLUDES 8-HYDROXY AMOXAPINE)	5 mL Serum - Plastic vial. Do not collect in serum separator tube.	<p>Therapeutic: 200-400 mcg/L Potentially Toxic: Not established (High Pressure Liquid Chromatography)</p>
0096	AMP, CYCLIC (CYCLIC AMP) NEPHROGENOUS	2 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial and 10 ml Frozen Urine - Plastic container. Separate plasma in a cold centrifuge and freeze immediately. Clearly label each container as to specimen type.	<3.1 mcmol/g of Creatinine (Radioimmunoassay)
0097	PARAMETRIC SERUM & URINE (This is the preferred method for Cyclic AMP, Urine)	1 mL Frozen Serum - Plastic vial (spun barrier tube) and 10 mL Frozen Urine - Plastic container. Clearly label each container as to specimen type.	1.83-4.31 nmol/dL Glomerular Filtrate (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0098	PLASMA	1 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial. Chill immediately after collection and centrifuge within 15 minutes in a cold centrifuge. Separate plasma and freeze.	Male: 14-26 nmol/L Female: 13-23 nmol/L (Radioimmunoassay)
0099	URINE	10 mL Frozen Random Urine - Plastic container. Freeze immediately.	1.0-11.5 mcmol/L (Radioimmunoassay)
0100	AMPHETAMINES (INCLUDES AMPHETAMINE/METHAMPHETAMINE) URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)
0101	QUANTITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)
0102	URINE/GASTRIC FLUID QUALITATIVE	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0103	AMYLASE SERUM	2 mL Serum - Plastic vial (spun barrier tube).	30-170 U/L (Spectrophotometry)
0104	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, timed, 2-hour specimen. The patient should be instructed to void bladder at the beginning of collection. Collect all urine subsequently excreted, including the final voiding at the end of the 2-hour period. Record total volume and hours of collection on both the specimen container and the test request form.	1-17 U/hr (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0105	AMYLASE ISOENZYMES	2 mL Frozen Serum - Plastic vial (spun barrier tube).	<p><u>U/L</u></p> <p>Total Amylase: 30-170</p> <p>Pancreatic Isoamylase: 7-54</p> <p>Salivary Isoamylase: 12-137</p> <p>Macroamylase: None detected</p> <p>(Enzymatic/Column Chromatography)</p>
0106	ANA (ANTINUCLEAR ANTIBODIES) SERUM	2 mL Serum - Plastic vial (spun barrier tube). Avoid hemolysis.	<p>Negative: <1:40</p> <p>Low Ab Level: 1:40-1:80</p> <p>Elevated Ab Level: ≥1:160</p> <p>(Indirect Immunofluorescence)</p>
0107	ANABOLIC STEROIDS	50-100 mL Frozen Urine - Plastic container. Contact laboratory prior to collection.	<p>Negative</p> <p>(Gas Chromatography/Mass Spectrometry)</p>
0108	ANDROGEN BINDING GLOBULIN (SEX HORMONE BINDING GLOBULIN) (TeBG)	2 mL Frozen Serum - Plastic vial (spun barrier tube). Record patient's age and sex on both the specimen container and the test request form. Lipemic and hemolyzed specimens are unacceptable.	<p>Male: 8-49 nmol/L</p> <p>Female: 20-106 nmol/L</p> <p>(Radioimmunoassay)</p>
0109	ANDROSTANEDIOL GLUCURONIDE	3 mL Serum - Plastic vial (spun barrier tube).	<p><u>ng/mL</u></p> <p>Male: 2.6-16.0</p> <p>Female: 0.6-8.1</p> <p>(Radioimmunoassay)</p>
0110	ANDROSTENEDIONE	2 mL Frozen Serum - Plastic vial (spun barrier tube).	<p>Adult Male & Female: 65-270 ng/dL</p> <p>Postmenopausal: < 180 ng/dL</p> <p>Prepubertal: <60 ng/dL</p> <p>(Radioimmunoassay)</p>

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	ANTIBIOTIC MICROBIAL ASSAY	<ul style="list-style-type: none"> - 2 mL Frozen Body Fluid or Serum - Collect body fluid in sterile tube. - Separate serum from cells. - Freeze approximately 2 mL of the specimen at -20°C in a plastic vial. - Indicate antibiotic to be tested. - Indicate other antibiotics or anti-cancer agents patient is receiving. 	
0111	ANTIBODY IDENTIFICATION	4 mL Serum - Plastic vial (1 full red top tube). Do not collect in serum separator tube. Label tubes with patient's name, client and lab numbers.	See laboratory report (Immune Agglutination)
0112	ANTIBODY SCREEN (COOMBS, INDIRECT)	Blood - 10 mL red top tube. Label tube clearly with patient's name and identification number. Do not collect in serum separator tube.	No significant antibodies detected (Immune Agglutination)
0113	ANTI-CENTROMERE ANTIBODIES (CENTROMERE ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected: <1:40 Positive: ≥1:40 (Indirect Immunofluorescence)
0114	ANTI-DNA ANTIBODIES (DNA ANTIBODIES) NATIVE, DOUBLE-STRANDED	1 mL Serum - Plastic vial (spun barrier tube).	< 1.0 U/mL (Radioimmunoassay)
0115	SINGLE-STRANDED	3 mL Frozen Serum - Plastic vial (spun barrier tube).	< 6% binding (Radioimmunoassay)
0116	ANTI-DNASE B TITER	1 mL Serum - Plastic vial (spun barrier tube).	Adults: <1:85 School-Age Children: <1:170 Preschool Children: <1:60 (Enzyme Inhibition)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0117	ANTI-ENA (Sm/RNP ANTIBODIES (Sm AND RNP ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion/Counter-Immunoelectrophoresis)
0118	ANTI-EPIDERMAL ANTIBODIES (EPIDERMAL ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)
0119	ANTI-GLOMERULAR BASEMENT MEMBRANE ANTIBODIES (GLOMERULAR BASEMENT MEMBRANE ANTIBODIES)	2 mL Serum - Plastic vial (spun barrier tube).	Negative: 0-9U Indeterminate: 10-20U Positive: >20U (Enzyme Linked Immunosorbent Assay)
0120	ANTI-HISTONE ANTIBODIES (HISTONE ANTIBODIES)	1 mL Serum -Plastic vial (spun barrier tube).	None detected (Enzyme Linked Immunosorbent Assay)
0121	ANTI-ISLET CELL ANTIBODIES (PANCREATIC ISLET CELL ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)
0122	ANTI JO-1 ANTIBODY (JO-1 ANTIBODY)	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0123	ANTI-MITOCHONDRIAL ANTIBODIES (MITOCHONDRIAL ANTIBODIES)	1 mL Serum -Plastic vial (spun barrier tube). Avoid hemolysis.	<u>Titer:</u> None detected: <1:20 Intermediate Level: 1: 2 0- 1: 80 (May be present in autoallergic liver diseases) Elevated Level: ≥1:160 (strongly suggestive of primary biliary cirrhosis) (Indirect Immunofluorescence)
0124	ANTI-MYELIN ANTIBODIES (MYELIN ANTIBODIES) [IgG, IgA, IgM]	1 mL Serum - Plastic vial (spun barrier tube).	IgG: <1:4 IgA: None detected IgM: None detected (Indirect Immunofluorescence)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0125	ANTI-MYOCARDIAL ANTIBODIES (MYOCARDIAL ANTIBODIES) SERUM	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)
0126	ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODIES (NEUTROPHIL CYTOPLASMIC ANTIBODY) [ANCA]	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)
0127	ANTI-PARIETAL CELL ANTIBODIES (PARIETAL CELL ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	Titer: <1:20 Negative Titer: 1:20-1:40 Weakly Positive Titer: ≥1:80 Positive, suggestive of pernicious anemia or atrophic gastritis. (Indirect Immunofluorescence)
0128	ANTI-RETICULIN ANTIBODIES (RETICULIN ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)
0129	ANTI-SCLERODERMA ANTIBODIES (SCLERODERMA ANTIBODIES) [SCL-70]	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0131	ANTI-SJÖGREN'S ANTIBODIES (SJÖGREN'S ANTIBODIES) [SS-A & SS-B]	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0132	ANTI-SMOOTH MUSCLE ANTIBODIES (SMOOTH MUSCLE ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected: <1:20 Weakly Positive: 1:20-1:40 Suggestive of Chronic Hepatitis: ≥1:80 NOTE: For weakly positive results, titer may be present in acute viral hepatitis, lupoid hepatitis, infectious mononucleosis or malignancy. (Indirect Immunofluorescence)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	ANTI-STREPTOCOCCAL DEOXYRIBONUCLEASE B TITER	See Anti-Dnase B Titer.	
0133	ANTI-STREPTOLYSIN O TITER (ASOT)	1 mL Serum - Plastic vial (spun barrier tube).	<p style="text-align: right;"><u>To</u> <u>dd</u> <u>U</u> <u>nit</u> <u>s</u></p> <p>Adult: <85 School Age: <170 Preschool Age: <85 (Agglutination)</p>
0134	ANTI-STRIATED MUSCLE ANTIBODIES (SKELETAL MUSCLE ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)
0135	ANTITHROMBIN III ACTIVITY	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze.	78-117% of normal (Chromogenic)
0136	ANTIGEN	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze.	22-39 mg/dL (Radial Immunodiffusion)
0137	ANTI-THYROGLOBULIN ANTIBODIES (THYROGLOBULIN ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	<1:10 (Hemagglutination)
0138	ANTI-THYROID ANTIBODIES (THYROID AUTOANTIBODIES) (INCLUDES THYROGLOBULIN AND THYROID MICROSOMAL ANTIBODIES)	2 mL Serum - Plastic vial (spun barrier tube).	Thyroid Microsomal Antibodies: <1:100 Thyroglobulin Antibodies: <1:10 (Hemagglutination)
0139	ANTI-THYROID MICROSOMAL ANTIBODIES (THYROID MICROSOMAL ANTIBODIES)	1 mL Serum - Plastic vial (spun barrier tube).	<1:100 (Hemagglutination)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0140	APOLIPOPROTEIN A1	2 mL Serum - Plastic vial (spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. Plasma or grossly lipemic specimens are not acceptable.	Male: 99-163 mg/dL Female: 102-169 mg/dL (Nephelometry)
0141	B	2 mL Serum - Plastic vial (spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. Plasma or grossly lipemic specimens are not acceptable.	Male: 56-119 mg/dL Female: 44-107 mg/dL (Nephelometry)
0142	EVALUATION (Includes A1, B and A1/B ratio)	2 mL Serum - Plastic vial (spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. Plasma or grossly lipemic specimens are not acceptable.	<u>Apolipoprotein A1 mg/dL</u> Male: 99-163 Female: 102-169 <u>Apolipoprotein B</u> Male: 56-119 Female: 44-107 <u>Apolipoprotein A1/B Ratio</u> Male: 0.9-1.27 43 Female: 1.27-2.78 (Nephelometry)
0143	ARBOVIRUS ANTIBODY PANEL (EASTERN EQUINE ENCEPHALITIS, WESTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS, CALIFORNIA ENCEPHALITIS)	2 mL Serum - Plastic vial (spun barrier tube).	Titer: <1:16 No antibody detected. No evidence of infection or immunity. Titer: ≥1:16 Antibody detected. Suggests an infection or immunization sometime in the past. Significant antigenic cross-reactivity occurs among the arboviruses. Therefore, take care when utilizing titer values to determine the infecting virus. (Indirect Immunofluorescence)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0144	ARSENIC BLOOD	7 mL Heparinized Whole Blood - 1 royal blue top trace metal tube.	<3 mcg/dL (Graphite Furnace Atomic Absorption)
0145	GASTRIC	10 mL Gastric Fluid - Plastic container.	None detected (Graphite Furnace Atomic Absorption)
0146	HAIR	1 gram Hair - Plastic container.	<65 mcg/100 g (Graphite Furnace Atomic Absorption)
0147	NAILS	1 gram Nails - Plastic container.	90-180 mcg/100 g (Graphite Furnace Atomic Absorption)
0148	SERUM	2 mL Serum - Plastic vial (spun barrier tube).	<70 ng/mL (Hydride Atomic Absorption)
0149	TISSUE	5 grams Tissue.	<u>mcg/g</u> Lung: ≤1.5 Liver: ≤1.5 Kidney: ≤0.07 (Graphite Furnace Atomic Absorption)
0150	URINE	50 mL Urine- Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 20 mL 6N HCl* to collection container prior to start of collection. Record total volume on both the specimen container and the test request form.	< 100 mcg/L (Graphite Furnace Atomic Absorption)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
0151	ARYLSULFATASE A, URINE	10 mL aliquot of a 24-hour urine (no preservative). Refrigerate. Do not freeze.	>1.0 U/L (Colorimetry, Kinetic)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0152	ASCORBIC ACID (VITAMIN C)	7 mL Frozen Serum - Amber plastic vial. Protect from light by wrapping in foil. Fluoridated and Oxalated plasma (gray top tube) is also acceptable.	0.2-2.0 mg/dL (Spectrophotometry)
	ASENDIN®	See Amoxapine.	
	ASOT	See Anti-Streptolysin O Titer.	
0153	ASPARTATE TRANSAMINASE (AST, SGOT)	2 mL Serum - Plastic vial (spun barrier tube).	0-50 U/L (Spectrophotometry)
0154	<u>ASPERGILLUS ANTIBODIES</u> BY COMPLEMENT FIXATION CSF	1 mL CSF - Plastic vial.	None detected (Complement Fixation)
0155	SERUM	1 mL Serum - Plastic vial (spun barrier tube).	<1:8 (Complement Fixation)
0156	BY IMMUNODIFFUSION	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0157	<u>ASPERGILLUS FLAVUS</u> ANTIBODIES	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0158	<u>ASPERGILLUS FUMIGATUS</u> ANTIBODIES	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0159	<u>ASPERGILLUS NIGER</u> ANTIBODIES	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0160	ASPIRIN (SALICYLATE) SERUM	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Therapeutic</u> mg/L Analgesic: 50-100 Anti-inflammatory: 10 0- 30 0 <u>Potentially Toxic:</u> >300 (Spectrophotometry/ Immunoassay)
	AST	See Aspartate Transaminase.	
0161	<u>AUREOBASIDIUM PULLULANS</u> ANTIBODIES	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0162	AUSTRALIA ANTIGEN (HEPATITIS B SURFACE ANTIGEN)	2 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunoassay)
0163	AVENTYL® (NORTRIPTYLIN) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Therapeutic:</u> 50-140 mcg/L (when taken as parent drug) <u>Potentially Toxic:</u> >300 mcg/L (Immunoassay/ High Pressure Liquid Chromatography)
0164	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0165	AZT (3'DEOXYTHYMIDINE), SERUM OR PLASMA	2 mL Serum or heparinized plasma (green top tube). Separate and FREEZE immediately in a plastic vial; place in specimen envelope with "FROZEN SPECIMEN" label applied and transport frozen. AZT has been indicated for the management of certain adult patients with symptomatic HIV infections (AIDS or the HIV (Human Immunodeficiency Virus) in vitro concentrations of 1 to 10 micromoles/L.	<u>Therapeutic:</u> Not established <u>Lowest Reportable Result:</u> 0.5 mmol/L (Liquid Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0166	B1 VITAMIN [VITAMIN B1] PLASMA (THIAMINE)	2 mL Frozen Heparinized Plasma - Plastic vial. Protect from light by wrapping in aluminum foil.	10-60 ng/mL (High Pressure Liquid Chromatography)
0167	NUTRITIONAL STATUS (TRANSKETOLASE)	1 mL Frozen Heparinized Whole Blood (green top tube) - Plastic vial.	0.75-1.30 IU/g Hemoglobin (Spectrophotometry)
0168	PYROPHOSPHATE (THIAMINE PYROPHOSPHATE)	3 mL Frozen Heparinized Whole Blood (green top tube) - Plastic vial. Do not use EDTA. Protect from light by wrapping in foil.	79-178 nmol/L (High Pressure Liquid Chromatography)
0169	B2 VITAMIN (VITAMIN B2) (RIBOFLAVIN)	1 mL Whole Blood mixed with Alsever's solution. Frozen, washed (3 times with saline), packed RBCs are also acceptable. Indicate specimen on test request form.	0.9-1.3 Activity Coefficient (Enzymatic)
0170	B12 VITAMIN (VITAMIN B12) SERUM	1 mL Serum - Plastic vial (spun barrier tube). Fasting specimen preferred.	<u>pg/mL</u> Normal: >200 Indeterminate: 140-200 Low: <140 (Radioimmunoassay)
0171	UNSATURATED BINDING CAPACITY	1 mL Serum - Plastic vial (spun barrier tube).	1000-2000 pg/mL (Radiometric)
	B12 VITAMIN UNSATURATED BINDING CAPACITY	See Vitamin B12, Unsaturated Binding Capacity.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0172	BACTERIAL ANTIGENS, COMPLETE (INCLUDES <u>H. INFLUENZAE</u> TYPE B; <u>N. MENINGITIDES</u>, GROUPS A, B, C, Y AND W135; <u>S. AGALACTIAE</u> (GROUP B); <u>S. PNEUMONIAE</u>)	2 mL CSF - Plastic vial or 2 mL Serum - Plastic vial (spun barrier tube) or 10 mL Random Urine or Body Fluid - Plastic container. Indicate type of fluid submitted and patient's age on test request form.	None detected (Latex Agglutination)
0173	BARBITURATES (INCLUDES AMOBARBITAL, BUTABARBITAL, BUTALBITAL, PENTOBARBITAL, PHENOBARBITAL AND SECOBARBITAL) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Amobarbital</u> mg/L Therapeutic: 3.0-12.0 Potentially Toxic: >12.0 <u>Butabarbital</u> Therapeutic: 2.0-14.0 Potentially Toxic: >14.0 <u>Butalbital</u> Therapeutic: 1.0-5.0 Potentially Toxic: >7.0 <u>Pentobarbital</u> Therapeutic: 1.0-5.0 Potentially Toxic: >5.0 Treatment of intracranial pressure with supportive therapy: Adult: 25.0-35.0 Child: 20.0-30.0 <u>Phenobarbital</u> Therapeutic: 15.0-40.0 Potentially Toxic: >40.0 <u>Secobarbital</u> Therapeutic: 1.0-5.0 Potentially Toxic: >5.0 (Gas Chromatography)
0174	URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)
0175	QUANTITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0176	URINE/GASTRIC FLUID QUALITATIVE	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0177	BASOPHILIC STIPPLING	2 Air-Dried Blood Smears. EDTA whole blood (lavender top tube) also acceptable.	No stippling (Microscopic Examination)
0178	B CELL IMMUNOGLOBULIN GENE REARRANGEMENT ANALYSIS	Three different types of specimens are acceptable: 10-15 mL Whole Blood collected in EDTA or ACD-A, maintained and shipped at room temperature; 2 mL Bone Marrow Aspirate collected in EDTA, maintained at room temperature; 200 mg Lymph Node Biopsy Tissue or other tissue which has been fresh frozen or frozen in OCT.	No gene rearrangement detected (DNA Probe Assay)
0179	bcr ANALYSIS (BREAKPOINT CLUSTER REGION ANALYSIS)	10-15 mL Whole Blood collected in two EDTA (lavender top tube) or ACD-A (yellow top tubes). Maintain and ship at room temperature. 2 mL EDTA (lavender top tubes) Bone Marrow may also be submitted.	No gene rearrangement detected in bcr gene (DNA Probe Assay)
	BENADRYL®	See Ambenyl® (Diphenhydramine)	
0180	BENZENE (PHENOL)	50 mL Random Urine collected at end of working day - Plastic container. Collect specimen at the end of the work shift.	Normal: None detected. Potentially Toxic: >75 mg/L NIOSH guidelines advise repeating test on a fresh specimen whenever result is more than 75 mg of phenol per liter or whenever specific gravity is <1.010. (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	BENZODIAZEPINES		
0181	URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)
0182	QUANTITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)
0183	URINE/GASTRIC FLUID QUALITATIVE	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0184	BENZTROPINE	2 mL Serum - Plastic vial. Do not collect in serum separator tube. Plasma is also acceptable.	Therapeutic: 5-25 ng/mL (High Pressure Liquid Chromatography)
0185	BERYLLIUM BLOOD	4 mL Heparinized Blood.	Usually up to 0.2 mcg/dL (Graphite Furnace Atomic Absorption)
0186	URINE	30 mL Urine - Plastic container. Add 6 drops concentrated HCl to container. Obtain specimen at end of work shift.	Usually up to 0.9 mcg/L Occupational Threshold: 1 mcg/L (Atomic Absorption)
0187	BETA-1C-GLOBULIN (COMPLEMENT COMPONENT C3)	1 mL Frozen Serum - Plastic vial (spun barrier tube). Avoid hemolysis. Allow specimen to clot at room temperature for a least 1 hour. Within 2 hours of collection, centrifuge specimen at 4°C. Separate serum from cells and transfer to plastic vial (spun barrier tube). Freeze immediately.	85-193 mg/dL (Nephelometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0188	BETA-1E-GLOBULIN (COMPLEMENT COMPONENT C4)	1 mL Frozen Serum - Plastic vial (spun barrier tube). Avoid hemolysis. Allow specimen to clot at room temperature for at least 1 hour. Within 2 hours of collection, centrifuge specimen at 4°C. Separate serum from cells and transfer to plastic vial (spun barrier tube). Freeze immediately.	12-36 mg/dL (Nephelometry)
0189	BETA-2 GLYCOPROTEIN (COMPLEMENT COMPONENT C3, PROACTIVATOR) (C3PA, FACTOR B)	1 mL Frozen Serum - Plastic vial (spun barrier tube).	20-51 mg/dL (Nephelometry)
0190	BETA-2-MICROGLOBULIN SERUM	1 mL Serum - Plastic vial (spun barrier tube).	<3.0 mg/L (Radioimmunoassay)
	BETA HCG	See Chorionic Gonadotropin.	
0191	BILE ACID (CHOLYLGLYCINE)	1 mL Serum - Plastic vial (spun barrier tube). Fasting specimen required.	<68 mcg/dL (Radioimmunoassay)
0192	BILE ACIDS FRACTIONATED	7 mL Frozen Serum - Plastic vial (2 spun barrier tubes).	Dihydroxy Bile Acids: 0-1.9 mcg/mL (as chenodeoxycholic acid) Trihydroxy Bile Acids: 0-3.4 mcg/mL (as cholic acid) (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																																							
0193	BILIRUBIN AMNIOTIC FLUID	7 mL Amniotic Fluid - Amber plastic vial. Specimen should be free from blood and meconium.	<table> <thead> <tr> <th>Weeks of Gestation</th> <th>Bilirubin (mg/dL)</th> <th>Delta Absorbance</th> </tr> </thead> <tbody> <tr> <td colspan="3">Normal:</td> </tr> <tr> <td>30</td> <td><0.08</td> <td><0.06</td> </tr> <tr> <td>35</td> <td><0.05</td> <td><0.04</td> </tr> <tr> <td>40</td> <td><0.04</td> <td><0.03</td> </tr> <tr> <td colspan="3">Moderate toxicity:</td> </tr> <tr> <td>30</td> <td>0.08-0.34</td> <td>0.06-0.27</td> </tr> <tr> <td>35</td> <td>0.05-0.25</td> <td>0.04-0.20</td> </tr> <tr> <td>40</td> <td>0.04-0.19</td> <td>0.03-0.15</td> </tr> <tr> <td colspan="3">Severe toxicity:</td> </tr> <tr> <td>30</td> <td>>0.34</td> <td>>0.27</td> </tr> <tr> <td>35</td> <td>>0.25</td> <td>>0.20</td> </tr> <tr> <td>40</td> <td>>0.19</td> <td>>0.15</td> </tr> </tbody> </table>	Weeks of Gestation	Bilirubin (mg/dL)	Delta Absorbance	Normal:			30	<0.08	<0.06	35	<0.05	<0.04	40	<0.04	<0.03	Moderate toxicity:			30	0.08-0.34	0.06-0.27	35	0.05-0.25	0.04-0.20	40	0.04-0.19	0.03-0.15	Severe toxicity:			30	>0.34	>0.27	35	>0.25	>0.20	40	>0.19	>0.15
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0195	DIRECT	2 mL Serum - Amber plastic vial.	0.0-0.3 mg/dL (Spectrophotometry)																																							
0196	FECES, QUALITATIVE	5 grams Frozen Random Feces - Plastic container. Protect from light by wrapping in foil.	None detected (Spectrophotometry)																																							
0197	FRACTIONATED (TOTAL, DIRECT AND INDIRECT)	2 mL Serum - Amber plastic vial.	<table> <thead> <tr> <th></th> <th>mg/dL</th> </tr> </thead> <tbody> <tr> <td>Total:</td> <td>0.2-1.2</td> </tr> <tr> <td>Direct:</td> <td>0.0-0.3</td> </tr> <tr> <td>Indirect</td> <td></td> </tr> <tr> <td>(Calculation):</td> <td>0.0-0.9</td> </tr> </tbody> </table> (Spectrophotometry)		mg/dL	Total:	0.2-1.2	Direct:	0.0-0.3	Indirect		(Calculation):	0.0-0.9																													
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0198	TOTAL	2 mL Serum - Amber plastic vial.	<table> <thead> <tr> <th>Age</th> <th>mg/dL</th> </tr> </thead> <tbody> <tr> <td><24 hrs</td> <td><6.0</td> </tr> <tr> <td>24-48 hrs</td> <td><8.0</td> </tr> <tr> <td>3-5 days</td> <td><12.0</td> </tr> <tr> <td>1 wk - 65 days</td> <td>0.2-1.2</td> </tr> <tr> <td>>65 yrs</td> <td>0.2-1.4</td> </tr> </tbody> </table> (Spectrophotometry)	Age	mg/dL	<24 hrs	<6.0	24-48 hrs	<8.0	3-5 days	<12.0	1 wk - 65 days	0.2-1.2	>65 yrs	0.2-1.4																											
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0199	URINE	10 mL Urine - Yellow screw-cap tube containing preservative. Please indicate on tube if specimen is from a pediatric patient. Stable 3 days at room temperature, if preserved.	See Urinalysis, Routine																																							

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	BLASTOMYCES ANTIBODIES BY COMPLEMENT FIXATION		
0201	CSF	1 mL CSF - Plastic vial.	None detected (Complement Fixation)
0202	SERUM	1 mL Serum - Plastic vial (spun barrier tube).	<1:8 (Complement Fixation)
0203	BY IMMUNODIFFUSION	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Immunodiffusion)
0204	BLEEDING TIME BY TEMPLATE	Patient must come to laboratory for this test.	
	BLOOD COUNT	See Complete Blood Count.	
	BLOOD GROUP	See ABO Group.	
0205	BLOOD LACTATE (LACTIC ACID)	2 mL Protein Free Filtrate - Plastic vial. Collect blood is pre-chilled green top tube. Mix well immediately. Add 3 mL whole blood (heparinized) to 6 mL ice-cold 8%* perchloric acid and mix thoroughly. Let stand in the refrigerator for 5-10 minutes to ensure complete precipitation of protein. Centrifuge or filter and submit clear filtrate. Fasting specimen recommended.	9-16 mg/dL (Spectrophotometry)
		*Prepare by diluting 11.4 mL of 70% perchloric acid to 100 mL with water.	
	BLOOD LEAD	See Lead, Blood	
	BLOOD, OCCULT	See Occult Blood. See also HemoQuant™.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0208	BLOOD PARASITES (MALARIA SMEAR, BLOOD)	2 Air-Dried Blood Smears (thick and thin) or EDTA Whole Blood - Full lavender top tube. Stable 1 day at 4°C or room temperature.	No malarial forms present. (Microscopic Examination)
	BLOOD TYPE	See ABO Group and RH Type.	
0209	BLOOD UREA NITROGEN (UREA NITROGEN) (BUN) SERUM	2 mL Serum - Plastic vial (spun barrier tube).	7-25 mg/dL (Spectrophotometry)
0210	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 10 grams boric acid to container at start of collection. Record total volume on both the specimen container and the test request form.	6-17 g/24 hours (Spectrophotometry)
	BREAKPOINT CLUSTER REGION ANALYSIS	See bcr Analysis.	
0211	BROMIDE	3 mL Serum - Plastic vial (spun barrier tube).	Therapeutic: 750-1500 mg/L Potentially Toxic: >1500 mg/L Potentially toxic over entire therapeutic range. (Spectrophotometry)
0212	<u>BRUCELLA ABORTUS</u> ANTIBODIES Acute and Convalescent	2 mL Serum - Plastic vial (spun barrier tube). NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Label each specimen. Freeze acute specimen until convalescent specimen is drawn.	<1:80 (Tube Agglutination)
	BUN	See Blood Urea Nitrogen.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0213	BUTABARBITAL (BUTISOL®) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube. See also Barbiturates.	Therapeutic: 2.0-14.0 mg/L Potentially Toxic: >14.0 mg/L (Gas Chromatography)
0214	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container. See also Barbiturates.	None detected (Chromatography)
	BUTALBITAL (FIORINAL®)	See Allylbarbituric Acid.	
	BUTISOL®	See Butabarbital.	
0215	C1 ESTERASE INHIBITOR BY ANTI-C1r, FUNCTIONAL	1 mL Frozen Serum - Plastic vial (spun barrier tube).	Present (Radial Immunodiffusion)
0216	BY ELISA, FUNCTIONAL	3 mL Frozen Serum - Plastic vial (spun barrier tube).	Normal: 68-100% Equivocal: 41-67% Presumptive: 0-40% (Enzyme Linked Immunosorbent Assay)
0217	QUANTITATIVE	1 mL Serum - Plastic vial (spun barrier tube).	>12 mg/dL (Nephelometry)
	C1 INACTIVATOR	See C1 Esterase Inhibitor, Quantitative.	
	C1 INHIBITOR	See C1 Esterase Inhibitor, Quantitative.	
0218	C1Q COMPLEMENT COMPONENT (COMPLEMENT COMPONENT C1Q)	1 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze.	14-20 mg/dL (Radial Immunodiffusion)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0219	C1Q IMMUNE COMPLEX DETECTION (IMMUNE COMPLEX C1Q BINDING ASSAY)	2 mL Frozen Serum - Plastic vial (spun barrier tube). Avoid hemolysis. Allow specimen to clot at room temperature for at least 1 hour. Centrifuge specimen at 4°C. Separate serum from cells and transfer to plastic vial (spun barrier tube). Freeze immediately.	Normal: <13% Borderline: 13-16% Elevated: >16% (Radioimmunoassay)
0220	C2 COMPLEMENT (COMPLEMENT COMPONENT C2)	2 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze.	1.6-3.6 mg/dL (Radial Immunodiffusion)
	C3 ACTIVATOR	See Beta-2-Glycoprotein	
	C3 COMPLEMENT	See Beta-1C-Globulin.	
	C3PA	See Beta-2-Glycoprotein.	
	C4 COMPLEMENT	See Beta-1E-Globulin.	
0221	C4d/C4 RATIO FOR C4 ACTIVATION	1 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze.	<1.1 (Rocket Immunoelectrophoresis)
0222	C5 COMPLEMENT (COMPLEMENT COMPONENT C5)	1 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze. Serum is also acceptable.	7.0-18.5 mg/dL (Radial Immunodiffusion)
0223	C6 COMPLEMENT (COMPLEMENT COMPONENT C6)	1 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze. Serum is also acceptable.	4.8-7.2 mg/dL (Radial Immunodiffusion)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0224	CA 15-3™ (CANCER ANTIGEN 15-3) (FOR INVESTIGATIONAL USE ONLY)	1 mL Serum - Plastic vial (spun barrier tube). NOTE: Investigator's form required. Please contact laboratory.	<31 U/mL (Radioimmunoassay)
0225	CA 19-9™ (CARBOHYDRATE ANTIGEN 19-9) (FOR INVESTIGATIONAL USE ONLY)	1 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze. NOTE: Investigator's form required. Please contact laboratory.	<37 U/mL (Radioimmunoassay)
0226	CA 125™ (CANCER ANTIGEN 125)	1 mL Serum - Plastic vial (spun barrier tube).	<35 U/mL (Radioimmunoassay)
0227	CADMIUM BLOOD	10 mL Heparinized Whole Blood - 1 royal blue top trace metal tube.	<u>mcg/L</u> Nonsmokers: <2 Smokers: <5 Potentially Toxic: >10 (Atomic Absorption/ Anodic Stripping Voltammetry)
0228	HAIR	0.5 grams Hair - Pencil-thick bundle, cut at roots. Tape in middle of bundle. Indicate root end.	In normal urban and rural dwellers not known to be occupationally exposed or living near contaminating industries: 0.25-0.34 mcg/g (Graphite Furnace Atomic Absorption)
0229	URINE	100 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Record total volume on both specimen container and test request form.	Non-Exposed: <5 mcg/L (Atomic Absorption)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0230	CAFFEINE SERUM	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Caffeine: 8-20 mg/L (Neonatal apnea) Potentially Toxic: >50 mg/L (Immunoassay/High Pressure Liquid Chromatography)
0231	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected (Chromatography)
0232	CALAN® (VERAPAMIL, ISOPTIN®) (INCLUDES NORVERAPAMIL METABOLITE)	3 mL Serum - Plastic vial (spun barrier tube).	Therapeutic: 100-600 mcg/L Potentially Toxic: Not established. (High Pressure Liquid Chromatography)
0233	CALCITONIN	2 mL Frozen Serum - Plastic vial (spun barrier tube). EDTA or heparinized plasma is also acceptable.	Male: <40 pg/mL Female: <20 pg/mL (Radioimmunoassay)
0234	CALCIUM SERUM BY ATOMIC ABSORPTION BY SPECTROPHOTOMETRY	2 mL Serum - Plastic vial (spun barrier tube). Specify method.	8.5-10.6 mg/dL (Spectrophotometry/Atomic Absorption)
0235	IONIZED	1 mL Serum - Plastic vial (spun barrier tube). Do not uncap. Centrifuge within 1 hour following collection and submit unopened to the laboratory.	4.60-5.30 mg/dL at pH 7.4 & 37°C (Ion Selective Electrode)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0236	URINE BY ATOMIC ABSORPTION BY SPECTROPHOTOMETRY	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 30 mL 6N HCl* to container at start of collection. Record total volume on both the specimen container and the test request form. Specimen pH must be less than 3. Adjust with 6N HCl, as necessary. Specify method. *Prepare by diluting concentrated HCl with an equal volume of water.	<u>mg/24 hrs</u> Low Calcium Diet: <150 High Calcium Diet: 250-300 (Spectrophotometry/Atomic Absorption)
0237	CALCULUS ANALYSIS	Air-Dried Sample. Do not use formaldehyde, tape or histologic techniques on specimen.	See laboratory report.
	CALIFORNIA ENCEPHALITIS ANTIBODIES	See Arbovirus Antibody Panel.	
0238	<u>CAMPYLOBACTER PYLORI ANTIBODIES (HELICOBACTER PYLORI ANTIBODIES)</u>	1 mL Serum - Plastic vial (spun barrier tube).	IgM Ab: Negative IgG Ab: Negative (Enzyme Linked Immunosorbent Assay)
	CANCER ANTIGEN 15-3	See CA 15-3™.	
	CANCER ANTIGEN 125	See CA 125™.	
0239	<u>CANDIDA PRECIPITINS (INCLUDES MANNAN AND CYTOPLASMIC)</u>	1 mL Serum - Plastic vial (spun barrier tube).	None detected. Mannan antibodies are present in Candida infection as well as in some normal, asymptomatic individuals. Cytoplasmic antibodies are usually detected only in patients with invasive candidiasis. (Immunodiffusion)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0240	CANNABINOIDS (MARIJUANA METABOLITES BY GC/MS) QUALITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)
0241	QUANTITATIVE	10 mL Urine - Plastic container.	None detected (Gas Chromatography/Mass Spectrometry)
0242	CARBAMATE PESTICIDES	6 mL Heparinized Plasma, Serum or Blood or 10 mL Frozen Urine.	Negative, but varies with compound (High Pressure Thin-Layer Chromatography/Gas Chromatography)
0243	CARBAMAZEPINE (TEGRETOL® TOTAL)	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 4.0-12.0 mg/L Potentially Toxic: >12.0 mg/L (Immunoassay)
0244	CARBOHYDRATE ANTIGEN 19-9	See CA 19-9™.	
0245	CARBON DIOXIDE	2 mL Serum - Plastic vial (spun barrier tube). Keep specimen tightly capped.	20-32 mEq/L (Spectrophotometry)
0246	CARBON MONOXIDE (CARBOXYHEMOGLOBIN)	EDTA Whole Blood - 1 full lavender top tube or Fluoridated and Oxalated Blood - 1 full gray top tube. Keep tube well sealed. NOTE: If a CBC is also requested, please submit an additional lavender top tube.	<u>% Total Hemoglobin</u> Nonsmoker: <2 Average Smoker: 4-5 (1-2 packs/day) Heavy Smoker: 8-12 (>2 packs/day) Potentially Toxic: >15 (Spectrophotometry)
0247	CARCINOEMBRYONIC ANTIGEN (ROCHE)	2 mL EDTA Plasma - (lavender top tube). Serum is also acceptable.	Nonsmoker: <2.5 ng/mL Smoker: <5.0 ng/mL (Enzyme Immunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0248	CARDIOLIPIN IgA ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	<u>APL/mL</u> Negative: <5.0 Low Positive: 5.0-6.0 Medium Positive: 6.1-50.0 High Positive: >50.0 APL = A Phospholipid Ab (Enzyme Immunoassay)
0249	IgG ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	<u>GPL/mL</u> Negative: <3.0 Low Positive: 3.0-15.0 Medium Positive: 15.1-80.0 High Positive: >80.0 GPL = G Phospholipid Ab (Enzyme Immunoassay)
0250	IgM ANTIBODY	2 mL Serum - Plastic vial (spun barrier tube).	<u>MPL/mL</u> Negative: <5.0 Low Positive: 5.0-6.0 Medium Positive: 6.1-50.0 High Positive: >50.0 MPL = M Phospholipid Ab (Enzyme Immunoassay)
0251	CARDIOLIPIN ANTIBODIES	2 mL Serum - Plastic vial (spun barrier tube).	IgG: <3 GPL/mL GPL = G Phospholipid Ab IgM: <5 MPL/mL MPL = M Phospholipid Ab IgA: <5 APL/mL APL = A Phospholipid Ab (Enzyme Immunoassay)
0252	CARISOPRODOL (SOMA®) (INCLUDES METABOLITE MEPROBAMATE)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 5-30 mg/L Toxic: >50 mg/L (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD												
0253	CARNITINE	1 mL Frozen Serum - Plastic vial (spun barrier tube). Reference Range Free Carnitine (nmol/mL): <table border="1"> <thead> <tr> <th></th> <th><u>Mean</u></th> <th><u>(SD)</u></th> <th><u>Range</u></th> </tr> </thead> <tbody> <tr> <td>Males</td> <td>46.8</td> <td>(10.0)</td> <td>28-69</td> </tr> <tr> <td>Females</td> <td>40.1</td> <td>(9.5)</td> <td>19-60</td> </tr> </tbody> </table> Total Carnitine (nmol/mL): Males 59.3 (11.9) 37-89 Females 51.5 (11.6) 30-73 Above ranges apply to ages >2 years. There are no established normal values for patients ≤ 2 years.		<u>Mean</u>	<u>(SD)</u>	<u>Range</u>	Males	46.8	(10.0)	28-69	Females	40.1	(9.5)	19-60	See below (Radioisotope Enzymatic)
	<u>Mean</u>	<u>(SD)</u>	<u>Range</u>												
Males	46.8	(10.0)	28-69												
Females	40.1	(9.5)	19-60												
0254	CAROTENE	5 mL Serum - Amber plastic vial. Protect from light by wrapping in foil.	50-300 mcg/dL (varies with diet) (Spectrophotometry)												
	CATECHOLAMINES	See Adrenaline & Noradrenaline, Plasma.													
	CBC	See Blood Count.													
	CBC AND DIFFERENTIAL	See Complete Blood Count and Differential.													
	CBC AND PLATELET COUNT	See Complete Blood Count and Platelet Count.													
	CBC, PLATELET COUNT AND DIFFERENTIAL	See Complete Blood Count, Platelet Count and Differential.													

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CBC, PLATELET COUNT, RDW AND DIFFERENTIAL	See Complete Blood Count, Platelet Count, RDW and Differential.	
	CEA	See Carcinoembryonic Antigen.	
0255	CELL COUNT, BODY FLUID (PLEURAL, PERITONEAL, SYNOVIAL)	1 mL Heparinized Body Fluid (green top tube) - Plastic vial preferred. 1 mL EDTA body fluid (lavender top tube) is also acceptable.	See laboratory report (Microscopic Examination)
0256	CELONTIN® (METHSUXIMIDE) (INCLUDES NORMETHSUXIMIDE METABOLITE)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 10-40 mg/L Potentially Toxic: >40 mg/L (Gas Chromatography)
	CENTROMERE ANTIBODIES	See Anti-Centromere Antibodies.	
0257	CEREBROSPINAL FLUID IgG SYNTHESIS AND INDEX (IgG SYNTHESIS AND INDEX)	2 mL Frozen Serum - Plastic vial (spun barrier tube), and 2 mL Frozen CSF - Plastic vial. Indicate specimen type on each vial.	Albumin CSF: 15-35 mg/dL Albumin Serum: 3.5-5.5 g/dL Albumin Index: <9.0 IgG CSF: 0.5-6.1 mg/dL IgG Index: <0.70 CSF IgG Synthesis: <3.3 mg/24 hrs (Nephelometry)
0258	CERULOPLASMIN	1 mL Serum - Plastic vial (spun barrier tube).	21-53 mg/dL (Nephelometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD										
0259	CH50 (COMPLEMENT,TOTAL)	1 mL Frozen Serum - Plastic vial (spun barrier tube). Avoid hemolysis. Allow specimen to clot at room temperature at least 1 hour. Within 2 hours, centrifuge specimen at 4°C and transfer to plastic vial (spun barrier tube). Freeze immediately. Plasma, joint fluid or other fluid (except cerebrospinal fluid, CSF) are also acceptable.	See laboratory report (Hemolytic Assay)										
	C HEMOGLOBIN	See Hemoglobin Electrophoresis.											
0260	<u>CHLAMYDIA TRACHOMATIS</u> IgG ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	<p>Explanation of EIA values:</p> <table> <tr> <td>≤0.15</td> <td>No prior exposure to <u>Chlamydia</u>.</td> </tr> <tr> <td>0.16-0.17</td> <td>Equivocal Result</td> </tr> <tr> <td>0.18-0.32</td> <td>Low Positive</td> </tr> <tr> <td>0.33-0.70</td> <td>Mid-range Positive</td> </tr> <tr> <td>≥0.71</td> <td>High Positive</td> </tr> </table> <p><u>Chlamydia trachomatis</u> serotype L2 Group antigen is used. Test detects IgG class antibody. (Enzyme Immunoassay)</p>	≤0.15	No prior exposure to <u>Chlamydia</u> .	0.16-0.17	Equivocal Result	0.18-0.32	Low Positive	0.33-0.70	Mid-range Positive	≥0.71	High Positive
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0261	IgM ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	None detected (Indirect Immunofluorescence)										
0262	CHLORAL HYDRATE (NOCTEC®) (AS TRICHOLOROETHANOL METABOLITE)	4 mL Serum - Plastic vial. Do not collect in serum separator tube.	<p>Therapeutic: 2-12 mg/mL Toxic: >20 mg/mL (Gas Chromatography)</p>										
0263	CHLORAMPHENICOL CSF	1 mL CSF - Plastic vial.	Therapeutic: Not established (Immunoassay/High Pressure Liquid Chromatography)										

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0264	SERUM	2 mL Serum -Plastic vial. Do not collect in serum separator tube.	<u>Therapeutic</u> <u>mg/L</u> Peak: 10-25 Trough: 5-20
0265	PEAK	Peak sample should be drawn 30 minutes after an intramuscular injection, 30 minutes after the end of a 30-minute intravenous infusion or immediately after a 60-minute intravenous infusion. Trough sample should be drawn immediately prior to next dose.	<u>Potentially Toxic</u> Peak: >25 Trough: >20 (Immunoassay/High Pressure Liquid Chromatography)
0266	TROUGH		
0267	CHLORDIAZEPOXIDE (LIBRIUM®) (INCLUDES ACTIVE METABOLITES)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic (Total): 1.0-3.0 mg/L Potentially Toxic (Total): >5.0 mg/L (High Pressure Liquid Chromatography)
	URINE/GASTRIC FLUID	See Benzodiazepines, Urine/Gastric fluid.	
0268	CHLORIDE CSF	1 mL CSF - Plastic vial.	118-132 mEq/L (Spectrophotometry)
0269	FECES	20 grams Feces - Plastic container. Aliquot from a well-mixed 24-hour collection.	0.14-0.85 mEq/24 hrs (Coulometry)
0270	SERUM	2 mL Serum - Plastic vial (spun barrier tube).	95-110 mEq/L (Spectrophotometry)
0271	URINE	15 mL Urine- Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Record total volume on both the specimen container and test request form.	150-250 mEq/24 hrs (Ion-Selective Electrode/ Spectrophotometry)
	CHLORMYCETIN®	See Chloramphenicol.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																								
0272	CHLORPROMAZINE (THORAZINE®) SERUM	4 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Adults</u> <u>mcg/L</u> Therapeutic: 50-300 Potentially Toxic: >750 <u>Children</u> Therapeutic: 40-80 Potentially Toxic: >750 (Gas Chromatography)																								
	URINE	See Phenothiazines, Urine/Gastric Fluid.																									
0273	CHOLESTEROL HIGH DENSITY LIPOPROTEIN (HDL)	2 mL Serum - Plastic vial (spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection. Reference Range Coronary <table border="1"> <thead> <tr> <th><u>Risk</u></th> <th><u>Female</u> mg/dL</th> <th><u>Male</u></th> </tr> </thead> <tbody> <tr> <td>Decreased</td> <td>>55</td> <td>>45</td> </tr> <tr> <td>Average</td> <td>55</td> <td>45</td> </tr> <tr> <td>Increased</td> <td><55</td> <td><45</td> </tr> </tbody> </table>	<u>Risk</u>	<u>Female</u> mg/dL	<u>Male</u>	Decreased	>55	>45	Average	55	45	Increased	<55	<45	(Spectrophotometry)												
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	LOW DENSITY LIPOPROTEIN (LDL)	See C.A.R.E. Panel #2 in the Panels and Profiles section. Reference Range <table border="1"> <thead> <tr> <th><u>Age</u></th> <th><u>mg/dL</u></th> <th><u>Risk Level</u></th> </tr> </thead> <tbody> <tr> <td><2</td> <td>No range</td> <td>established</td> </tr> <tr> <td>2-19</td> <td><110</td> <td>Desirable</td> </tr> <tr> <td></td> <td>110-125</td> <td>Borderline High</td> </tr> <tr> <td></td> <td>>125</td> <td>High</td> </tr> <tr> <td>≥20</td> <td><130</td> <td>Desirable</td> </tr> <tr> <td></td> <td>130-159</td> <td>Borderline High</td> </tr> <tr> <td></td> <td>>160</td> <td>High</td> </tr> </tbody> </table>	<u>Age</u>	<u>mg/dL</u>	<u>Risk Level</u>	<2	No range	established	2-19	<110	Desirable		110-125	Borderline High		>125	High	≥20	<130	Desirable		130-159	Borderline High		>160	High	See below (Enzymatic/ Spectrophotometry/Calculation)
<u>Age</u>	<u>mg/dL</u>	<u>Risk Level</u>																									
<2	No range	established																									
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TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																											
0274	TOTAL	2 mL Serum - Plastic vial (spun barrier tube). Reference Range <u>Age</u> <u>mg/dL</u> <u>Risk Level</u> <2 No range established 2-19 <170 Desirable 170-185 Borderline High >185 High ≥20 <200 Desirable 200-239 Borderline High >240 High	See below (Spectrophotometry)																											
0275	TOTAL AND ESTERS	2 mL Frozen Serum - Plastic vial (spun barrier tube). Submit frozen or heat for 30 minutes at 60°C.	Total: See above Esters: 70-78% of Total (Spectrophotometry)																											
0276	VERY LOW DENSITY LIPOPROTEIN (VLDL)	7 mL Frozen EDTA Plasma (lavender top tube) - Transfer plasma to plastic vial and freeze. Fasting specimen required. Patient should fast 12-14 hours prior to collection.	<table> <thead> <tr> <th></th> <th>Male</th> <th>Female</th> </tr> </thead> <tbody> <tr> <td><u>Age</u> <u>mg/dL</u> <u>mg/dL</u></td> <td></td> <td></td> </tr> <tr> <td>5-19</td> <td>0-26</td> <td>1-24</td> </tr> <tr> <td>20-29</td> <td>1-36</td> <td>2-29</td> </tr> <tr> <td>30-39</td> <td>5-56</td> <td>1-36</td> </tr> <tr> <td>40-49</td> <td>5-51</td> <td>5-41</td> </tr> <tr> <td>50-59</td> <td>8-62</td> <td>2-49</td> </tr> <tr> <td>60-69</td> <td>4-45</td> <td>1-41</td> </tr> <tr> <td>>70</td> <td>0-38</td> <td>0-48</td> </tr> </tbody> </table> (Ultracentrifugation)		Male	Female	<u>Age</u> <u>mg/dL</u> <u>mg/dL</u>			5-19	0-26	1-24	20-29	1-36	2-29	30-39	5-56	1-36	40-49	5-51	5-41	50-59	8-62	2-49	60-69	4-45	1-41	>70	0-38	0-48
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50-59	8-62	2-49																												
60-69	4-45	1-41																												
>70	0-38	0-48																												
	CHOLINESTERASE, ACETYL	See Acetylcholinesterase.																												
0277	CHOLINESTERASE, PSEUDO PLASMA	1 mL Heparinized Plasma (green top tube) - Plastic vial.	See laboratory report Male: 2.4-6.2 U/mL Female: 1.7-7.4 U/mL (Spectrophotometry)																											

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0278	PSEUDO AND DIBUCAINE NUMBER	4 mL Heparinized Plasma (green top tube) - Plastic vial. Separate plasma from cells within 1 hour after collection. Avoid hemolysis.	<u>Dibucaine #</u> <u>% Inhibition</u> Normal: 73-90 Heterozygotes: 54-70 Atypical Homozygotes: 16-28 <u>Pseudocholinesterase U/mL</u> Male: 2.4-6.2 Female: 1. 7- 7. 4 (Spectrophotometry)
	CHOLYLGLYCINE	See Bile Acid.	
0279	CHORIONIC GONADOTROPIN, INTACT SERUM QUALITATIVE (PREGNANCY SCREEN)	1 mL Serum - Plastic vial (spun barrier tube).	Pregnancy: Positive Males and Nonpregnant Females: Negative (Immunoassay)
0280	QUANTITATIVE (PREGNANCY MONITORING)	1 mL Serum - Plastic vial (spun barrier tube).	See below (Immunoassay) <u>mIU/mL</u> Males: <2 Nonpregnant Females: Premenopausal: <5 Postmenopausal: <10 Pregnancy: Weeks After Last Menstrual <u>Period (LMP)</u> <u>mIU/mL</u> 1-4 <160 5-6 90-34,000 7-8 2,400-131,000 9-10 19,000-151,000 11-12 6,100-169,000 2nd Trimester 6,300-128,000 3rd Trimester 9,700-74,000

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0281	CHORIONIC GONADOTROPIN, TOTAL (TUMOR MARKER)	1 mL Serum - Plastic vial (spun barrier tube). Specify tumor marker.	Males and Nonpregnant Females: <5 mIU/mL (Radioimmunoassay)
0282	CHORIONIC GONADOTROPIN, TOTAL SERUM QUALITATIVE (PREGNANCY TEST)	1 mL Serum - Plastic vial (spun barrier tube).	Pregnancy: Positive Males and Nonpregnant Females: Negative (Immunoassay)
0283	URINE QUALITATIVE	5 mL Urine - Plastic vial.	Pregnancy: Positive Males and Nonpregnant Females: Negative (Immunoassay)
	CHRISTMAS DISEASE	See Coagulation Factor IX.	
0284	CHROMIUM BLOOD	2 mL Heparinized Whole Blood - (royal blue top tube).	<5 ng/mL (Atomic Absorption)
0285	SERUM	4 mL Serum - Acid-washed plastic vial.* Collect in royal blue top trace metal tube only. Transfer serum to acid-washed plastic vial with plastic cap within two hours of collection. * Acid-Wash Procedure: Wash 3-5 times with 0.5% nitric acid followed by 3-5 times with twice-distilled water.	<0.5 mcg/L (Graphite Furnace Atomic Absorption)
0286	URINE	10 mL Random Urine - Acid-washed plastic container.* * Acid-Wash Procedure: Wash 3-5 times with 0.5% nitric acid followed by 3-5 times with twice-distilled water.	0-10 mcg/L (Graphite Furnace Atomic Absorption)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
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CHROMOSOME ANALYSIS, BANDED, AMNIOTIC FLUID

Contact laboratory for cytogenetics shipping kit and/or cytogenetics request forms. Complete all necessary information on the cytogenetics request form, including:

- Gestational age by ultrasound
- Last menstrual period (LMP)
- Pregnancy history
- Maternal age
- Weight
- Race
- Whether mother is insulin-dependent diabetic (if amniotic fluid alpha fetoprotein is also requested)

Observe sterile technique; if possible draw **20-30 mL of Fluid**. Do **not** centrifuge. Discard first 2 mL of aspirate. Put 10-15 mL of fluid into each of two sterile plastic tubes. If tap is bloody, put bloody portion in one tube and clear portion in the other. Label containers with:

- Patient name
- Type of specimen
- Physician name
- Date collected

Do **not** freeze. When necessary, use a cool-pack to ensure that specimen is not exposed to temperatures in excess of 37°C.

Amniocytes are grown in monolayer colonies on the surface of cover slips in petri dishes and/or flasks. When small colonies develop, cells are arrested in metaphase with colcemid and harvested. Cells are GTG-banded (Giemsa banding) and stained for chromosome analysis under a microscope. At least 15 cells from at least 10 colonies are analyzed. Photomicrographs or digital images are made and karyotyped.

Note: Specimen stability is crucial. Specimen must be shipped without delay. Viability of amniocytes decreases significantly after 24 hours.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
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CHROMOSOME ANALYSIS, BANDED, BONE MARROW

Contact laboratory to obtain cytogenetics shipping kit and/or cytogenetics request form. Complete all necessary information on the cytogenetics request form, including:

- Patient age
- Patient sex
- Presumptive diagnosis
- Specimen type
- Referring physician

Also include the following hematological information:

- White blood cell count
- Percent blasts
- Platelet count
- Whether patient has had prior chemotherapy.

Obtain **1-4 mL Bone Marrow** in a sterile sodium heparin (green top) Vacutainer™. Use sterile technique to prevent microbial contamination of specimen or container. Label container with:

- Patient name
- Type of specimen
- Physician name
- Date collected

Do **not** freeze or refrigerate. Maintain specimen at room temperature. In the event that bone marrow is not obtainable, a peripheral blood specimen may be substituted. The mitotic index of circulating neoplastic cells is often sufficient for analysis. However, the substitution of blood for bone marrow should be clearly indicated on the cytogenetics test request form. Blood specimens should consist of 1-4 mL blood collected in a sterile sodium heparin (green top) Vacutainer™.

Aspirated bone marrow cells are cultured in the absence of mitogens for 24- and 48-hour periods. Harvested metaphases are banded with the GTG technique and examined for numerical and structural abnormalities. Unless a depressed mitotic index is encountered, twenty metaphases are routinely analyzed. Additional metaphases are examined to establish clonal abnormalities as needed. Two karyotypes are prepared.

CHROMOSOME ANALYSIS, BANDED, PHA STIMULATED LYMPHOCYTES

See Cytogenetics section.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CHROMOSOME ANALYSIS, FRAGILE X	<p>Contact laboratory to obtain cytogenetics shipping kit and/or cytogenetics request form. Complete all necessary information on the cytogenetics form, including:</p> <ul style="list-style-type: none"> - Patient age - Patient sex - Referring physician - Presumptive diagnosis <p>Obtain 3-4 mL Peripheral Blood in a sterile sodium heparin (green top) Vacutainer™. Use sterile technique to prevent microbial contamination of specimen or container. Label container with:</p> <ul style="list-style-type: none"> - Patient name - Type of specimen - Physician name - Date collected <p>Do not freeze or refrigerate. Maintain specimen at room temperature.</p> <p>Cells are cultured for 96 hours in a medium which is either deficient in thymidine and folic acid or treated with fluorodeoxyuridine. A minimum of 50 metaphases are examined for the presence of fragile sites. Precise identification of fragile site positive chromosomes is obtained with GTG (Giemsa banding technique) or QFQ banding. In addition, 15 cells are routinely analyzed with GTG banding to exclude constitutional chromosome abnormalities. Two karyotypes are prepared.</p>	
	CHROMOSOME ANALYSIS, HIGH RESOLUTION BANDING	<p>Contact laboratory to obtain cytogenetics shipping kit and/or cytogenetics request form. Complete all necessary information on the cytogenetics form, including:</p> <ul style="list-style-type: none"> - Patient age - Patient sex - Referring physician - Presumptive diagnosis <p>Obtain 3-4 mL Peripheral Blood in a sterile sodium heparin (green top) Vacutainer™. Use sterile technique to prevent microbial contamination of specimen or container. Label specimen with:</p> <ul style="list-style-type: none"> - Patient name - Type of specimen - Physician name - Date collected <p>Do not freeze or refrigerate. Maintain specimen at room temperature.</p> <p>The blood is placed in culture media and incubated for 72-96 hours. Two high resolution chromosome culturing techniques may be used - synchronization technique and actinomycin D or ethidium bromide pretreatment. Following cell harvest, slides are prepared for karyotyping and analysis. Ten to twenty cells are analyzed. Two karyotypes are prepared.</p>	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0287	CHYMEX® (BENTIROMIDE®) [PARA-AMINOBENZOIC ACID (PABA)]	15 mL Urine - Plastic container. Aliquot from a well-mixed, 6-hour collection after an overnight fast and a 500 mg oral dose of Bentiramide® (Chymex®). No preservative. Record 6-hour volume on both the specimen container and the test request form. Indicate Bentiramide® dosage if it is different than 500 mg.	50% or greater excretion of PABA during the first 6 hrs. (Spectrophotometry)
0288	CITRIC ACID SERUM	1 mL Frozen Serum - Plastic vial (spun barrier tube).	1.3-2.6 mg/dL (Spectrophotometry)
0289	URINE	5 mL Urine - Screw-cap tube. Aliquot from a well-mixed, 24-hour collection. Add 10 grams boric acid to container at start of collection. Record total volume on both the specimen container and the test request form.	140-940 mg/24 hrs (Spectrophotometry)
	CK	See Creatine Kinase, Total.	
	CK ISOENZYME	See Creatine Kinase Isoenzyme Panel.	
	CLINDAMYCIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
0290	CLONAZEPAM (KLONOPIN®)	3 mL Frozen Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 10-80 mcg/L Potentially Toxic: >100 mcg/L (High Pressure Liquid Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0291	CLORAZEPATE (TRANXENE®) [AS NORDIAZEPAM] SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 0.4-1.5 mg/L Potentially Toxic: >5.0 mg/L (High Pressure Liquid Chromatography)
	URINE/GASTRIC FLUID	See Benzodiazepines, Urine/Gastric fluid.	
	<u>CLOSTRIDIUM DIFFICILE ANTIGEN</u>	Submit a minimum of 5 grams of feces in a plastic container. Refrigeration of the specimen for transport is recommended to maintain the quality of the specimen.	
	<u>CLOSTRIDIUM DIFFICILE CULTURE</u>	See Culture, <u>Clostridium Difficile</u> .	
	<u>CLOSTRIDIUM DIFFICILE TOXIN SCREEN</u>	Minimum of 5 grams frozen feces in plastic container.	
	CMV ANTIBODIES	See Cytomegalovirus Antibodies.	
	CNS IgG SYNTHESIS RATE	See Cerebrospinal Fluid IgG Synthesis & Index.	
	CO₂	See Carbon Dioxide.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0292	COAGULATION FACTORS	<ul style="list-style-type: none"> - 2 mL Frozen Citrated Plasma (blue top tube) - Plastic vial. - Submit one vial for each test requested. - The ratio of blood to citrate is critical (9:1). Collect 4.5 mL blood in blue top tube (0.5 mL sodium citrate). - Centrifuge immediately at 4°C for 15 minutes. - Remove plasma, transfer to a plastic vial and freeze immediately. - Specimen must remain frozen. Ship on dry ice. 	See individual test for reference range.
0293	COAGULATION FACTOR II	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable for 30 days frozen.	See laboratory report.
0294	COAGULATION FACTOR V	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	See laboratory report.
0295	COAGULATION FACTOR VII	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	See laboratory report.
0296	COAGULATION FACTOR VIII ACTIVITY	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	See laboratory report.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0297	ACTIVITY/VON WILLEBRAND PANEL (INCLUDES ACTIVITY, ANTIGEN, AND MULTIMERIC)	Three separate 2 mL aliquots of Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information.	See laboratory report.
0298	RELATED ANTIGEN (VON WILLEBRAND ANTIGEN)	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	>50% of Normal (Enzyme Linked Immunosorbent Assay)
0299	RISTOCETIN COFACTOR	0.5 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information.	50-150% of Normal (Platelet Aggregation)
0300	VON WILLEBRAND MULTIMERIC ANALYSIS	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	Normal (Gel Electrophoresis)
0301	COAGULATION FACTOR IX	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	See laboratory report.
0302	COAGULATION FACTOR X	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	See laboratory report.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0303	COAGULATION FACTOR XI	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	See laboratory report.
0304	COAGULATION FACTOR XII	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information.	See laboratory report.
0305	COAGULATION FACTOR XIII SCREEN	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. See Coagulation Factors For Additional Information. Stable 30 days frozen.	Clot Stable (Clot Observation)
0306	COAGULATION INHIBITOR VIII IDENTIFICATION & SCREEN	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. Identification is performed on all positive screens at an additional cost. See Coagulation Factors For Additional Information.	None detected. (Identification: Kaspar Assay Screen: Coagulation Mixing Study)
0307	COAGULATION INHIBITOR IX IDENTIFICATION & SCREEN	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. Identification is performed on all positive screens at an additional cost. See Coagulation Factors For Additional Information.	None detected. (Identification: Kaspar Assay Screen: Coagulation Mixing Study)
0308	COAGULATION INHIBITOR XI IDENTIFICATION & SCREEN	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. Identification is performed on all positive screens at an additional cost. See Coagulation Factors For Additional Information.	None detected. (Identification: Kaspar Assay Screen: Coagulation Mixing Study)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0309	COAGULATION INHIBITOR XII IDENTIFICATION & SCREEN	2 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. Identification is performed on all positive screens at an additional cost. See Coagulation Factors For Additional Information.	None detected. (Identification: Kaspar Assay Screen: Coagulation Mixing Study)
0310	COCAINE AND METABOLITE	5 mL Frozen Fluoridated and Oxalated Plasma (gray top tube) - Plastic vial. Freeze plasma within 1 hour of collection.	None detected. (Gas Chromatography/Mass Spectrometry)
0311	COCAINE METABOLITES URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0312	QUANTITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0313	URINE/GASTRIC FLUID QUALITATIVE	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
0314	COCCIDIOIDES ANTIBODIES BY COMPLEMENT FIXATION CSF	1 mL CSF - Plastic vial.	None detected. (Complement Fixation)
0315	SERUM	1 mL Serum - Plastic vial (spun barrier tube).	<1:2 (Complement Fixation)
0316	BY IMMUNODIFFUSION QUALITATIVE	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Immunodiffusion)
0317	BY LATEX AGGLUTINATION QUALITATIVE	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Latex Agglutination)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0318	CODEINE SERUM (INCLUDES METABOLITE)	5 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Therapeutic:</u> <u>mcg/L</u> Codeine: 30-120 Morphine: 20-100 Potentially Toxic: Not established (Capillary Gas Liquid Chromatography)
	URINE/GASTRIC FLUID (INCLUDES METABOLITE)	See Opiates, Urine/Gastric Fluid.	
	COLD HEMAGGLUTININS	See Agglutinins, Cold.	
	COMPLEMENT ACTIVATION PANEL	See Panels and Profiles section.	
	COMPLEMENT C1 ESTERASE INHIBITOR	See C1 Esterase Inhibitor.	
	COMPLEMENT C1 INACTIVATOR	See C1 Esterase Inhibitor.	
	COMPLEMENT C4d/C4 RATIO FOR C4 ACTIVATION	See C4d/C4 Ratio for C4 Activation.	
	COMPLEMENT COMPONENT C1q	See C1q Complement Component.	
	COMPLEMENT COMPONENT C2	See C2 Component.	
	COMPLEMENT COMPONENT C3	See Beta-1C-Globulin.	
	COMPLEMENT COMPONENT C3, PROACTIVATOR (C3PA, FACTOR B)	See Beta-2-Glycoprotein.	
	COMPLEMENT COMPONENT C4	See Beta-1E-Globulin.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	COMPLEMENT COMPONENT C5	See C5 Component.	
	COMPLEMENT COMPONENT C6	See C6 Component.	
	COMPLEMENT EVALUATION	See Panels and Profiles section.	
0319	COMPLEMENT SPECIFIC IMMUNE COMPLEX	1 mL Frozen Serum - Plastic vial (spun barrier tube).	<u>mcg Eq/mL</u> Normal: ≤15 Borderline: 16-19 Abnormal: ≥20 (Enzyme Linked Immunosorbent Assay)
	COMPLEMENT SPECIFIC IMMUNE COMPLEX EVALUATION	See Panels and Profiles section.	
	COMPLEMENT, TOTAL CH50 UNITS	See CH50 Units.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0320	COMPLETE BLOOD COUNT, PLATELET COUNT, RDW AND DIFFERENTIAL (INCLUDES WBC, RBC, HEMOGLOBIN, HEMATOCRIT, MCV, MCH, MCHC, PLATELET COUNT, RDW, AND DIFFERENTIAL)	EDTA Whole Blood - 1 full lavender top tube. Two Air-Dried Blood Smears are requested but not required.	<p><u>WBC:</u> 3.8-10.1 thous/mcL</p> <p><u>RBC</u></p> <p>Male: 4.4-5.8 mill/mcL</p> <p>Female: 3.9-5.2 mill/mcL</p> <p><u>Hemoglobin</u></p> <p>Male: 13.8-17.2 g/dL</p> <p>Female: 12.0-15.6 g/dL</p> <p><u>Hematocrit</u></p> <p>Male: 41-50%</p> <p>Female: 35-46%</p> <p><u>MCV:</u> 80-100 fL</p> <p><u>MCH:</u> 27-33 pg</p> <p><u>MCHC:</u> 32-36%</p> <p><u>Platelet Count:</u></p> <p>130-400 thous/mcL</p> <p><u>RDW:</u> 9-15%</p> <p><u>Differential:</u></p> <p>See laboratory report.</p> <p>Values vary with age. (Flow Cytometry, Automated Cytochemistry and/or Microscopy)</p>
0321	COMPLETE BLOOD COUNT PLATELET COUNT AND DIFFERENTIAL (INCLUDES WBC, RBC, HEMOGLOBIN, HEMATOCRIT, MCV, MCH, MCHC, PLATELET COUNT, AND DIFFERENTIAL)	EDTA Whole Blood - 1 full lavender top tube. Two Air-Dried Blood Smears are requested but not required.	See Complete Blood Count, Platelet Count, RDW and Differential for reference range information.
0322	COMPLETE BLOOD COUNT AND PLATELET COUNT (INCLUDES WBC, RBC, HEMOGLOBIN, HEMATOCRIT, MCV, MCH, MCHC, PLATELET COUNT)	EDTA Whole Blood - 1 full lavender top tube.	See Complete Blood Count, Platelet Count, RDW and Differential for reference range information.
0323	COMPLETE BLOOD COUNT (INCLUDES WBC, RBC, HEMOGLOBIN, HEMATOCRIT, MCV, MCH, MCHC)	EDTA Whole Blood - 1 full lavender top tube.	See Complete Blood Count, Platelet Count, RDW and Differential for reference range information.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0324	COMPLETE BLOOD COUNT AND DIFFERENTIAL (INCLUDES WBC, RBC, HEMOGLOBIN, HEMATOCRIT, MCV, MCH, MCHC, AND DIFFERENTIAL)	EDTA Whole Blood - 1 full lavender top tube. Two Air-Dried Blood Smears are requested but not required.	See Complete Blood Count, Platelet Count, RDW and Differential for reference range information.
	COMPREHENSIVE DRUG SCREEN	<ul style="list-style-type: none"> - 50 mL Random Urine - Plastic container. - Whole Blood in one 7 mL gray top tube and one 10 mL red top tube. Do not use Serum Separator Tubes. - All Gastric Contents (if available) - Plastic container. 	

This analysis is valuable when drug overdose is possible or suspected but the causative agent is unknown, and other data available to the physician are insufficient to permit definite treatment. The study includes qualitative analysis for the types of drugs listed below and blood quantitations of those marked with an asterisk(*). To meet more specialized needs, such as tests for drugs not included below or additional test options, please contact your local laboratory.

Analyses Performed

Amphetamines

Amphetamine (Benzedrine®)
Methamphetamine (Desoxyn®)

Analgesics

*Acetaminophen
*Salicylates

Anticonvulsants

*Phenobarbital
*Phenytoin

Antidepressants

Amitriptyline (Elavil®)
Nortriptyline (Aventyl®)
Doxepin (Sinequan®)
Imipramine (Tofranil®)
Desipramine (Norpramin®)

Antihistamines/Decongestants

Chlorpheniramine
Diphenhydramine
Ephedrine
Phenylpropanolamine

Miscellaneous Agents

Cocaine and Metabolites
Dextromethorphan
Lidocaine
Phencyclidine
Quinine/Quinidine

Narcotics

Codeine
Hydromorphone (Dilaudid®)
Meperidine (Demerol®)
Methadone (Dolophine®)
Morphine (Heroin)
Pentazocine (Talwin®)
Propoxyphene and Metabolite (Darvon®)

Sedatives and Hypnotics

*Amobarbital
*Butabarbital (Butisol®)
*Butalbital (Fiorinal®)
*Ethchlorvynol (Placidyl®)
Flurazepam (Dalmane®)
*Glutethimide (Doriden®)
*Meprobamate (Equanil®)
*Methaqualone (Quaalude®)
*Pentobarbital (Nembutal®)
*Phenobarbital (Luminal®)
*Secobarbital (Seconal®)

Tranquilizers

Benzodiazepine and Metabolites
Phenothiazines and Metabolites

Volatiles

*Acetone
*Alcohol, Ethyl
*Alcohol, Isopropyl
*Alcohol, Methyl

Consultation with the attending physician is desirable. Blood and urine and required for complete analysis. If only blood is submitted, only drugs marked by an asterisk can be detected. If only urine is submitted, contact the laboratory. All classes of drugs will be detected as the parent compound and/or its urinary metabolite.

Note: Do not use alcohol or alcohol-containing solutions as a skin preparation for drawing blood specimens. We suggest using nonalcoholic solutions such as Betadine® or Zephiran®.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CONJUNCTIVITIS EVALUATION	See Panels and Profiles section.	
0325	CONNECTING PEPTIDE (C-PEPTIDE) SERUM	2 mL Frozen Serum - Plastic vial (spun barrier tube). Fasting specimen required.	0.8-4.0 ng/mL (fasting) (Radioimmunoassay)
0326	URINE	7 mL Frozen Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Refrigerate during collection. No preservative. Record total volume on both the specimen container and the test request form.	19-121 mcg/24hrs (Radioimmunoassay)
0327	COOMBS DIRECT (DIRECT ANTIGLOBULIN)	<ul style="list-style-type: none"> - EDTA Whole Blood - 1 full lavender top tube. Label tube clearly with patient's name and identification number. - Blood - 10 mL red top tube. Label tube clearly with patient's name and identification number. Do not collect in serum separator tube. NOTE: False positive Direct Coombs results may occur with blood samples collected in tubes containing silicone gel.	None detected. (Immune Agglutination)
0328	INDIRECT (ANTIBODY SCREEN)	Blood - 10 mL red top tube. Label tube clearly with patient's name and identification number. Do not collect in serum separator tube.	No significant antibodies detected. (Immune Agglutination)
329	COPPER RBC	2 mL Heparinized RBC - Plastic vial. Centrifuge specimen and submit only RBC in plastic vial.	Usually 66-112 mcg/dL (Atomic Absorption)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
330	SERUM	2 mL Serum - Plastic vial (spun barrier tube). Collect in royal blue top trace metal tube (no anticoagulant). Red top tube is also acceptable.	70-155 mcg/dL Levels are higher in children, women or oral contraceptives, and during pregnancy. (Atomic Absorption)
331	URINE	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 20 mL 6N HCl* to container at start of collection. Record total volume on both the specimen container and the test request form.	15-50 mcg/24 hrs (Atomic Absorption)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
	COPROPORPHYRIN	See Porphyrins, Fractionated, Urine.	
	COPROPORPHYRIN, UROPORPHYRIN AND PROTOPORPHYRIN	See Porphyrins, Fractionated, Feces.	
	CORONARY ATHEROSCLEROSIS RISK EVALUATIONS	See C.A.R.E. Panels and Profiles section.	
	CORONARY RISK ASSESSMENT PANEL I	See Panels and Profiles section.	
	CORONARY RISK ASSESSMENT PANEL II	See Panels and Profiles section.	
	CORTICOSTEROIDS	See Hydroxycorticosteroids, 17-.	
	CORTICOTROPIN	See Adrenocorticotrophic Hormone.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0332	CORTISOL BY RADIOIMMUNOASSAY, FREE URINE	75 mL Frozen Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Record total volume on both the specimen container and the test request form.	20-90 mcg/24 hrs (Radioimmunoassay)
0333	TOTAL	1 mL Serum - Plastic vial (spun barrier tube). See laboratory report.	See laboratory report. (Radioimmunoassay)
	COXIELLA BRUNETII ANTIBODIES	See Q-Fever Antibodies.	
0334	COXSACKIE A VIRUS ANTIBODIES (TYPES 2, 7, 10, 16)	2 mL Serum - Plastic vial.	Titer: <1:8 No antibody detected. No evidence of infection. Titer: ≥1:8 Antibody detected. Suggests infection at some undetermined time in the past. Significant cross reactivity occurs within the Coxsackie A virus group. (Complement Fixation)
0335	COXSACKIE B VIRUS ANTIBODIES (TYPES 1-6) BY NEUTRALIZATION	2 mL Serum - Plastic vial (spun barrier tube). Hemolysis and contamination are not acceptable. Specify method.	Titer: <1:8 No antibody detected. No evidence of infection.
0336	Acute and Convalescent		Titer: ≥1:8
0337	BY COMPLEMENT FIXATION		Antibody detected. Suggests infection at some undetermined time in the past. Significant cross reactivity occurs within the Coxsackie B virus group. (Complement Fixation/ Neutralization)
0338	Acute and Convalescent	NOTE: The most useful results are obtained by submitting acute and convalescent specimens together. Freeze acute specimen until convalescent specimen in drawn and then submit both specimens together.	
339	C-PEPTIDE	See Connecting Peptide	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CPK	See Creatine Kinase.	
341	CPK ISOENZYMES	See Creatine Kinase Isoenzyme Panel.	
342	C-REACTIVE PROTEIN QUALITATIVE	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Latex Agglutination)
343	QUANTITATIVE	1 mL Serum - Plastic vial (spun barrier tube).	<0.80 mg/dL (Nephelometry)
344	CREATINE AND CREATININE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour urine collection. Keep specimen refrigerated during collection. No preservative. Record total volume on both the specimen container and the test request form.	<u>Creatine</u> as Creatinine <u>g/24 hrs</u> Male: <0.15 Female: <0.25 <u>Creatinine</u> <u>g/24 hrs</u> Male: 0.8-2.4 Female: 0.6-1.8 (Spectrophotometry)
345	CREATINE AND CREATININE (WITH LLOYD'S REAGENT)	3 mL Serum - Plastic vial (spun barrier tube).	<u>Creatine</u> as Creatinine <u>mg/dL</u> Male: 0.1-0.4 Female: 0.2-0.7 <u>Creatinine</u> <u>mg/dL</u> Male: 0.7-1.4 Female: 0.5-1.0 (Spectrophotometry)
346	CREATINE KINASE ISOENZYME PANEL (INCLUDES TOTAL CK)	3 mL Frozen Serum - Plastic vial (spun barrier tube).	<u>Total CK</u> Male: <235 U/L Female: <190 U/L <u>Isoenzymes</u> CK-BB: None detected CK-MB: <5% of total CK-MM: 95-100% of total (Electrophoresis/ Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
347	TOTAL	2 mL Frozen Serum - Plastic vial (spun barrier tube). Freeze immediately.	Male: <235 U/L Female: <190 U/L (Spectrophotometry)
348	CREATININE AMNIOTIC FLUID	3 mL Amniotic Fluid - Plastic vial. NOTE: If Bilirubin is also requested, submit an additional 3 mL of fluid and protect from light by wrapping in foil.	A concentration >2 mg/dL in the presence of a normal serum creatinine is generally associated with a mature fetus. (Spectrophotometry)
349	SERUM	2 mL Serum - Plastic vial (spun barrier tube).	0.7-1.4 mg/dL (Spectrophotometry)
350	SERUM WITH LLOYD'S REAGENT	2 mL Serum - Plastic vial (spun barrier tube). Specify "with Lloyd's Reagent."	Male: 0.7-1.4 mg/dL Female: 0.5-1.0 mg/dL (Spectrophotometry)
351	URINE	10 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Record total volume on both the specimen container and the test request form.	Male: 0.8-2.4 g/24 hrs Female: 0.6-1.8 g/24 hrs (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
352	CREATININE CLEARANCE SERUM AND URINE (INCLUDES URINE, CREATININE, SERUM CREATININE AND CLEARANCE)	<ul style="list-style-type: none"> - 15 mL Urine - Plastic container. - Hydrate patient by administering a minimum of 600 mL water. Tea, coffee and drugs should be withheld on the day of the test. - After drinking water, patient should void and discard the urine; start a 24-hour collection. - Submit a 15 mL aliquot of the well-mixed urine in a plastic container. Record total volume on both the specimen container and the test request form. - 2 mL Serum - Plastic vial (spun barrier tube). Collect specimen at a convenient time, during the 24-hour urine collection. - Submit the serum and urine specimens together with a single test request form for Creatinine Clearance. <p>Include patient's height and weight on the test request form.</p>	<p>Male: 85-125 mL/minute Female: 75-115 mL/minute (Spectrophotometry)</p>
	CRP	See C-Reactive Protein.	
353	CRYOGLOBULIN QUALITATIVE	5 mL Serum - Plastic vial (spun barrier tube). Collect, clot and centrifuge at 37°C. Fasting specimen required. Do not refrigerate.	None detected. (Cold Precipitation)
354	QUANTITATIVE	5 mL Serum- Plastic vial (spun barrier tube). Collect, clot and centrifuge at 37°C. Fasting specimen required. Do not refrigerate.	<6.0 mg/dL (Cold Precipitation)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	<u>CRYPTOCOCCUS ANTIGEN CSF</u>		
355		1 mL CSF - Plastic vial.	Normal: None detected
0356	SERUM	1 mL Serum - Plastic vial (spun barrier tube). Indicate specimen type on both the sample container and the test request form.	Titer: $\leq 1:4$ May be significant, however, additional serological follow-up and culture are strongly recommended. Titer: $\geq 1:8$ In sera or cerebrospinal fluid is highly suggestive of active infection. Diagnosis should be confirmed by demonstration of the organism culturally and/or microscopically. (Latex Agglutination)
	<u>CRYPTOSPORIDIUM SMEAR</u>		
		Collect and submit fecal specimen as described for Parasite Examination.	
	<u>CRYSTALS</u>		
0357	BODY FLUID	2 mL Body Fluid - Plastic vial.	None detected for presence of calcium pyrophosphate, cholesterol or uric acid crystals. (Microscopic Examination and Polariscopy for Crystal Identification)
0358	SYNOVIAL FLUID	2 mL Heparinized Synovial Fluid - Plastic vial. For comprehensive analysis, see Synovial Fluid Analysis.	None detected for presence of calcium pyrophosphate, cholesterol or uric acid crystals. (Microscopic Examination and Polariscopy for Crystal Identification)
	URINE	See Urinalysis, Routine.	
0359	CSF BANDING (OLIGOCLONAL BANDING)	4 mL CSF - Plastic vial and 1 mL Serum - Plastic vial (spun barrier tube). Clearly label each tube with specimen type.	None detected. (Agarose Gel Electrophoresis)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CSF CULTURE	See Culture, Cerebrospinal Fluid.	
	CSF/IgG INDEX	See Cerebrospinal Fluid IgG Synthesis & Index.	
	CULTURE, ABSCESS	Aspirate from Abscess Burn Deep Closed Wound Fistula Incision and Drainage Pilonidal Cyst - Decontaminate skin. - Aspirate as much purulent material as possible with sterile needle and syringe. Do not submit syringe. - Immediately transfer an aliquot of the specimen to an anaerobic transport vial and a sterile vial or container. - Prepare an air-dried smear. Fix with 95% alcohol or gentle flame. - Label with patient's name.	
	CULTURE, AEROBIC BACTERIA	- See appropriate site listing for submission requirements. - Indicate source. - Send a transport swab and 1 air-dried smear.	
	CULTURE, ANAEROBIC BACTERIA	- See appropriate site listing for submission requirements. - Indicate source. - Submit in anaerobic transport system at room temperature. Fix 1 air-dried smear with 95% alcohol or gentle flame.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, ASPIRATE	Aspirate Eye, Fluid Aspirate Hematoma Joint Pericardial Peritoneal Pleural Transtracheal - Decontaminate skin. - Collect specimen with sterile needle and syringe. - Transfer an aliquot of the specimen to an anaerobic transport vial and a transport swab. - Prepare an air-dried smear. Fix with 95% alcohol or gentle flame. - Label with patient's name.	
	CULTURE, BLOOD	Blood Culture (set of 2 bottles)	
	CULTURE, BODY FLUID	See Culture, Aspirate.	
	CULTURE, BONE MARROW	See Culture, Tissue.	
	CULTURE, <u>BORDETELLA</u>	Nasopharyngeal or Perinasal Swab. Collect with a transport swab. Submerge in a tube of Regan-Lowe medium.	
	CULTURE, BRONCHOSCOPY	See Culture, Respiratory Secretions.	
	CULTURE, <u>CAMPYLOBACTER</u>	- Collect fecal specimen in clean container. - Transfer approximately 1 gram of feces to the stool culture transport system.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, CEREBROSPINAL FLUID	<ul style="list-style-type: none"> - Sterile lumbar puncture. - Collect several milliliters of CSF, if possible, and transfer into sterile screw-cap tube. - Submit the second or third tube drawn at room temperature. 	
	CULTURE, CERVICAL	See Culture, Genital.	
	CULTURE, <u>CHLAMYDIA</u>	Urogenital, respiratory, conjunctival, or rectal specimen. Stool is not acceptable.	Rapid Shell Vial Technique with DFA stain
	CULTURE, <u>CLOSTRIDIUM DIFFICILE</u>	<ul style="list-style-type: none"> - Collect fecal specimen in clean container. - Submit the specimen on a transport swab. A refrigerated specimen is preferred. Frozen specimens are acceptable. - Do not submit specimens at room temperature. 	
	CULTURE, <u>CORYNEBACTERIUM DIPHTHERIAE</u>	Nasopharyngeal Submit a transport swab and portion of membrane, if present.	
	CULTURE, CYTOMEGALOVIRUS COMPREHENSIVE RAPID	Urine, respiratory specimen, blood (buffy coat), tissue or rectal swabs. Stool is also acceptable See Culture, Virus section for collection information.	Rapid Shell Vial Technique and/or Conventional Tissue Culture. Contact laboratory for availability.
	CULTURE, DIALYZER WATER	Dialysate Submit in sterile container.	
	CULTURE, EAR, EXTERNAL	See Culture, Lesion.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, ENDOMETRIUM	See Culture, Pelvic Organs.	
	CULTURE, ENT/ORAL	<p>Nasopharyngeal</p> <p>Nose, Routine (Anterior nares)</p> <p>Nose for <u>Staphylococcus aureus</u> (Anterior nares)</p> <p>Throat, Comprehensive (Pharynx and Tonsillar Fauces)</p> <p>See also Culture, <u>Streptococcus</u>.</p> <p>Submit in a transport swab. Indicate source.</p>	
	CULTURE, <u>ESCHERICHIA COLI</u> 0517:H7	<ul style="list-style-type: none"> - Collect fecal specimen in clean container. - Transfer approximately 1 gram of feces to the stool culture transport system. Fluid level should reach line on vial. 	
	CULTURE, EYE, EXTERNAL	See Culture, Lesion in the Microbiology section.	
	CULTURE, EYE, INTERNAL	See Culture, Aspirate in the Microbiology section.	
	CULTURE, FUNGUS	<p>Indicate Source.</p> <ul style="list-style-type: none"> - Submit sputum, skin scrapings, nail cuttings, or hairs in tightly-sealed sterile, 50 mL plastic centrifuge tubes. - Submit swab specimens in transport swab. - Submit tissue in sterile tube. 	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, GENITAL	Cervical Endocervical Urethral Vaginal Penile Collect material and submit in a transport swab.	
	CULTURE, <u>HAEMOPHILUS DUCREYI</u>	Ulcer exudate - Use a swab to remove superficial debris and scab; discard. - Use two swabs to collect material from purulent ulcer base. One swab should be an anaerobic transport swab; the other is used to prepare smear.	
	CULTURE, <u>HELICOBACTER (CAMPYLOBACTER) PYLORI</u>	Antral Biopsy - Transfer specimen to a small sterile tube containing 0.5 mL of 20% glucose or saline. - Transport under anaerobic (bag) conditions. - Store and transport at refrigerator temperature (4°C).	
3108 3109	CULTURE, HERPES SIMPLEX VIRUS (ALSO INCLUDED IN VIRUS CULTURE) COMPREHENSIVE RAPID	Vesicle swab, urogenital swab, nasopharyngeal, throat, CSF or tissue.	Rapid 24-hour Shell Vial Technique or conventional tissue culture. Contact laboratory for local availability.
	CULTURE, INDWELLING CATHETER URINE	See Culture, Urine.	
	CULTURE, INTRAUTERINE DEVICE	See Culture, Pelvic Organs.	
	CULTURE, INTRAVENOUS CATHETER TIP	See Culture, Lesion.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, INVASIVE URINE	See Culture, Urine.	
	CULTURE, <u>LEGIONELLA SPECIES</u>	2 mL Lower Respiratory Tract Specimen. Store and transport refrigerated or frozen.	
	CULTURE, LESION	<p>Ear, External</p> <ul style="list-style-type: none"> - Cleanse external canal. - Obtain specimen with swab, scraping or aspirating fluid. - Submit in a transport swab. <p>Eye, External</p> <ul style="list-style-type: none"> - Swab, conjunctival or corneal scrapings. - Submit in a transport swab. <p>Intravenous Catheter Tip</p> <ul style="list-style-type: none"> - Decontaminate skin as indicated for blood culture. - Use sterile forceps to remove catheter. - Submit tip in sterile, screw-cap tube, with several drops of sterile saline added. <p>Superficial Wounds</p> <ul style="list-style-type: none"> - Decontaminate wound surface. - Swab or aspirate deep areas, not surface. - Submit purulent material in a transport swab. - Prepare an air-dried smear. Fix with 95% alcohol or gentle flame. Label with patient's name. 	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
CULTURE, <u>MYCOBACTERIUM</u>	<p>Blood Submit in 3 SPS (yellow top) or heparin (green top) tubes.</p>		
	<p>CSF/Feces Submit in tightly-sealed, screw-cap tube. Contact laboratory for Mycobacterial isolation from stool samples. Useful for isolation of <u>Mycobacterium avium-intracellulare complex</u> (MAC).</p>		
	<p>Gastric Washings Collect and submit in container with 1 gram of sodium bicarbonate for every 15 mL of gastric fluid.</p>		
	<p>Peritoneal Fluid Pleural Fluid Synovial Fluid Submit in 3 SPS (yellow top) or heparin (green top) tubes or in tightly-sealed, sterile 50 mL plastic centrifuge tubes.</p>		
	<p>Sputum - First morning, deep-cough specimen is best. - Submit specimens on 3 consecutive days (not pooled). - Collect sputum in tightly-sealed 50 mL plastic centrifuge tube (from sputum collection kit).</p>		
	<p>Urine - First morning specimen is best. - Submit specimens on 3 consecutive days (not pooled). - Submit specimen in tightly-sealed, sterile, 50 mL plastic centrifuge tube.</p>		

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, <u>MYCOPLASMA</u>, GENITAL	Genital (cervical, urethral) <ul style="list-style-type: none"> - Obtain specimen with sterile swab. - Mix swab vigorously in the <u>Mycoplasma hominis/ureaplasma</u> transport medium (yellow label) and discard swab. - Tightly cap, store and transport vial to the laboratory at room temperature or 4°C. 	
	CULTURE, <u>MYCOPLASMA</u>, <u>PNEUMONIAE</u>	Sources other than genital. <ul style="list-style-type: none"> - Obtain specimens with sterile swab. - Place swab in <u>Mycoplasma pneumoniae</u> transport medium (red label), mix vigorously. (Vials must be kept frozen until use). - Date specimen; the specimen must reach the laboratory within 72 hours of that date. - Tightly cap, store and transport vial to the laboratory at room temperature or 4°C. Do not freeze. 	
	CULTURE, NASOPHARYNGEAL	See Culture, ENT/Oral.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, <u>NEISSERIA</u>	Body Fluids Blood - Submit in aerobic blood culture bottle. Cervical Eye Prostatic Fluid Rectal Throat Urethral Vaginal - Obtain specimen on swab (transport swab for urethral specimen). - Inoculate a GC (<u>Neisseria gonorrhoeae</u>). Transport plate immediately after collection of specimen. - Roll swab in "Z" pattern over surface. - Place CO ₂ tablet in well in plate. - Replace lid and place in zip-lock bag and seal. - Submit culture as soon as possible. - Do not refrigerate the inoculated plate. Keep at room temperature or 37°C. - Indicate source.	
	CULTURE, NOSE FOR <u>STAPHYLOCOCCUS AUREUS</u>	See Culture, ENT/Oral.	
	CULTURE, NOSE ROUTINE	See Culture, ENT/Oral.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, PELVIC ORGANS	<p>Endometrium</p> <ul style="list-style-type: none"> - Transfer an aliquot of the specimen (tissue or fluid) to an anaerobic transport vial and transport swab. Do not send syringe with needle attached. - Prepare an air-dried smear. Fix with 95% alcohol or gentle flame. Label with patient's name. <p>Intrauterine Device</p> <ul style="list-style-type: none"> - Submit entire device. - Transport in sterile screw-cap tube with 1-2 mL sterile saline added to provide moisture. 	
	CULTURE, RESPIRATORY SECRETIONS	<p>Bronchoscopy Brushings</p> <ul style="list-style-type: none"> - Collect specimen through inner chamber of bronchoscope. - Submit in sterile container. - Prepare an air-dried smear. Fix with 95% alcohol or gentle flame. Label with patient's name. - Anaerobic cultures must be specifically requested and transported properly. <p>Sputum</p> <ul style="list-style-type: none"> - Collect specimen in sterile 50 mL centrifuge tube. 	
	CULTURE, ROUTINE URINE	See Culture, Urine.	
	CULTURE, SPUTUM, BACTERIAL	See Culture, Respiratory Secretions.	
	CULTURE, STOOL (<u>SALMONELLA/SHIGELLA/CAMPYLOBACTER</u>)	<p>Feces</p> <ul style="list-style-type: none"> - Collect fecal specimen in clean container. - Transfer approximately 1 gram of feces to the stool culture transport system. Fluid level should reach line on vial. 	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, <u>STREPTOCOCCUS</u>	Pharynx and Tonsillar Fauces Genital Collect specimen and submit in a transport swab.	
	CULTURE, THROAT, COMPREHENSIVE	See Culture, ENT/Oral.	
	CULTURE, TISSUE	<p>Bone Submit piece of bone in sterile container.</p> <p>Bone Marrow</p> <ul style="list-style-type: none"> - Decontaminate skin. - Collect specimen with sterile needle and syringe. - Transfer an aliquot of the specimen to an anaerobic transport vial and an aerobic transport swab. - Prepare an air-dried smear. Fix with 95% alcohol or gentle flame. - Label with patient's name. <p>Biopsy</p> <ul style="list-style-type: none"> - Collect specimen (5-10 ccm) using aseptic technique. - Transfer part of the specimen to an anaerobic transport tube. - Submit the rest of the tissue in a sterile screw-cap tube with saline. Do not add formalin. - Indicate source. 	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
1039	CULTURE, URINE INDWELLING CATHETER URINE	Catheterized Urine.	
1040	INVASIVE URINE	Suprapubic Aspirates Ureterocatheterization	- Transfer part of specimen to anaerobic transport vial. - Submit remainder of specimen in sterile screw-cap tube.
1041	ROUTINE URINE	Clean Catch Midstream Foley Tip	 Not acceptable for culture.
	CULTURE, <u>VIBRIO</u>	Feces - Collect fecal specimen in clean container. - Transfer 1 gram to Cary-Blair vial.	
3110	CULTURE, VIRUS Culture may detect: Adenovirus Coxsackie Virus (Groups A & B) Cytomegalovirus Echovirus Enterovirus Herpes Simplex Virus Influenza Virus (Types A & B) Mumps Virus* Parainfluenza Virus (Types 1, 2, & 3) Poliovirus Respiratory Syncytial Virus Rubella Virus* Rubeola (Measles) Virus* Varicella-Zoster Virus *Mumps, Rubella, and Rubeola Viruses must be specifically requested.	Call laboratory to confirm availability.	Rapid Shell Vial Technique and Conventional Tissue Culture
	CULTURE, YEAST	See Culture, Fungus.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	CULTURE, <u>YERSINIA</u>	Feces - Collect fecal specimen in clean container. - Transport approximately 1 gram of feces to the stool culture transport system. Fluid level should reach line on vial.	
	CUSHING'S DISEASE EVALUATION	See Panels and Profiles section.	
0360	CYANIDE	5 mL Fluoridated and Oxalated Whole Blood - 1 full gray top tube.	Normal: <0.1 mg/L Potentially Toxic: >0.50 mg/L (Spectrophotometry)
	CYCLIC AMP	See AMP, Cyclic.	
0361	CYCLOSPORINE (SANDIMMUNE®)	2 mL Heparinized Whole Blood.	<u>Trough</u> <u>mcg/L</u> Kidney Transplant: 100-200 Other Organ: 200-300 No definite therapeutic or toxic ranges have been established. The trough level ranges are suggested guidelines. (High Pressure Liquid Chromatography)
0362	CYSTINE	15 mL Urine - Plastic container. Aliquot from well-mixed, 24-hour collection. Acidify with 6N HCl* to pH 2-3. Record total volume on both the specimen container and test request form.	10-100 mg/24 hrs (Spectrophotometry)
		*Prepare by diluting concentrated HCl with an equal volume of water.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0360	CYTOMEGALOVIRUS (CMV) ANTIBODIES BY COMPLEMENT FIXATION	1 mL Serum - Plastic vial (spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggestive of an infection at some undetermined time in the past. (Complement Fixation)
0361	CYTOMEGALOVIRUS (CMV) IgG ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	See laboratory report (Enzyme Immunoassay)
0362	IgM ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	See below (Enzyme Immunoassay)
		Reference Range	
		Explanation of EIA values:	
		<0.30 Negative: No CMV IgM Antibody detected.	
		0.30-0.59 Weak positive for CMV IgM Antibody. Suggestive of a recent infection in neonates. The significance of this low level of antibody in adults has not been determined.	
		≥0.60 Positive: CMV IgM Antibody detected.	
	CYTOMEGALOVIRUS CULTURE	See Culture, Cytomegalovirus.	
	CYTOSPIN	See Cytopathology/Histopathology section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																		
0363	DALMANE® (FLURAZEPAM) [AS N-DESALKYL-FLURAZEPAM] SERUM	4 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 30-120mcg/L Potentially Toxic: >500 mcg/L (High Pressure Liquid Chromatography)																		
0364	URINE/GASTRIC FLUID	See Benzodiazepines, Urine/Gastric Fluid.																			
	DARVON®	See Propoxyphene.																			
	DATRIL®	See Acetaminophen.																			
0365	DEHYDROEPIANDROSTER- ONE SULFATE (DHEA-S)	1 mL Serum - Plastic vial (spun barrier tube).	<table border="1"> <thead> <tr> <th>Age Yrs</th> <th>Male ng/mL</th> <th>Female ng/mL</th> </tr> </thead> <tbody> <tr> <td>15-29</td> <td>1500-5500</td> <td>1000-5000</td> </tr> <tr> <td>30-39</td> <td>1500-5500</td> <td>600-3500</td> </tr> <tr> <td>40-49</td> <td>1000-4000</td> <td>400-2500</td> </tr> <tr> <td>50-59</td> <td>600-3000</td> <td>200-1500</td> </tr> <tr> <td>≥60</td> <td>300-2000</td> <td>200-1500</td> </tr> </tbody> </table> (Radioimmunoassay)	Age Yrs	Male ng/mL	Female ng/mL	15-29	1500-5500	1000-5000	30-39	1500-5500	600-3500	40-49	1000-4000	400-2500	50-59	600-3000	200-1500	≥60	300-2000	200-1500
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≥60	300-2000	200-1500																			
0366	UNCONJUGATED (DHEA)	2 mL Frozen Serum - Plastic vial (spun barrier tube). Frozen EDTA Plasma (lavender top tube) or Heparinized Plasma (green top tube) also acceptable. Morning specimen preferred.	<table border="1"> <thead> <tr> <th>Age</th> <th>ng/dL</th> </tr> </thead> <tbody> <tr> <td>Adults</td> <td>140-1010</td> </tr> <tr> <td><u>Children</u></td> <td></td> </tr> <tr> <td><7 yrs:</td> <td>10-72</td> </tr> <tr> <td>7-8 yrs:</td> <td>12-150</td> </tr> <tr> <td>9-10 yrs:</td> <td>17-182</td> </tr> <tr> <td>11-12 yrs:</td> <td>20-585</td> </tr> <tr> <td>13-14 yrs:</td> <td>40-542</td> </tr> </tbody> </table> (Radioimmunoassay)	Age	ng/dL	Adults	140-1010	<u>Children</u>		<7 yrs:	10-72	7-8 yrs:	12-150	9-10 yrs:	17-182	11-12 yrs:	20-585	13-14 yrs:	40-542		
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	URINE	See Ketosteroids, 17-, Fractionated.																			
	DELTA AMINOLEVULINIC ACID	See Aminolevulinic Acid.																			

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	DELTA HEPATITIS VIRUS ANTIBODY	See Hepatitis Delta Virus Antibody.	
	DELTA HEPATITIS PANEL	See Hepatitis Delta Panel in Panels and Profiles section.	
0367	DEMEROL® (MEPERIDINE) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 0.10-0.55 mg/L Potentially Toxic:>1.0 mg/L (Gas Chromatography)
0368	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
0369	DEPAKENE® (VALPROIC ACID)	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 50-100 mg/L Potentially Toxic:>100 mg/L (Immunoassay)
	DESALKYLFLURAZEPAM, N-(FLURAZEPAM)	See Dalmane®.	
0370	DESIPRAMINE (NORPRAMIN®)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 50-300 mcg/L Potentially Toxic:>500 mcg/L (Immunoassay/High Pressure Liquid Chromatography)
	DESMETHYLDOXEPIN®	See Doxepin.	
0371	DESYREL® (TRAZODONE)	3 mL Serum - Plastic vial. EDTA plasma (lavender top tube) also acceptable. Do not collect in serum separator tube.	Therapeutic range suggested: 900-2100 mcg/L However, occasional patients may respond to substantially lower plasma or serum concentrations. (High Pressure Liquid Chromatography)
0372	DEXTROMETHORPHAN	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	DHEA-S	See Dehydroepiandrosterone, Sulfate.	
	DHEA-UNCONJUGATED	See Dehydroepiandrosterone, Unconjugated.	
0373	DHT (DIHYDROTESTOSTERONE, 5-ALPHA)	3 mL Serum - Plastic vial (spun barrier tube). EDTA plasma (lavender top tube) is also acceptable.	Male: 30-100 ng/dL Female: 6-33 ng/dL (Radioimmunoassay)
	DIABETES ASSESSMENT PROFILE	See Panels and Profiles section.	
	DIABETES MONITORING EVALUATIONS	See Panels and Profiles section.	
	DIATASE	See Amylase.	
0374	DIAZEPAM (VALIUM®) (Includes Nordiazepam Metabolite) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>mg/L</u> Therapeutic: 0.5-2.0 Potentially Toxic: >3.0 (High Pressure Liquid Chromatography/Gas Chromatography)
	URINE/GASTRIC FLUID	See Benzodiazepines, Urine/Gastric Fluid.	
	DIBUCAINE NUMBER	See Cholinesterase, Pseudo and Dibucaine Number.	
0375	DICHLOROPHENOL	30 mL Urine - Plastic container. Obtain specimen at end of work shift. Wrap in foil.	See laboratory report. (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	DICLOXACILLIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	DIFFERENTIAL COUNT, SYNOVIAL FLUID	See Synovial Fluid Analysis.	
	DIGITALIS	See Digitoxin.	
0376	DIGITOXIN	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>mcg/L</u> Therapeutic: 10-30 Potentially Toxic: >30 (Immunoassay - FPIA)
0377	DIGOXIN	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>mcg/L</u> Therapeutic: 0.5-2.0 Potentially Toxic: >2.0 (Immunoassay - FPIA)
	DIHYDROTESTOSTERONE, 5-ALPHA	See DHT.	
	DIHYDROXY, 1, 25 VITAMIN D	See Vitamin D (1,25-Dihydroxy).	
	DILANTIN®	See Phenytoin.	
	DIPHENADRIL®	See Diphenhydramine.	
	DIPHENHYDRAMINE	See Ambenyl®.	
	DIPHENYLHYDANTOIN	See Phenytoin.	
0378	DIPHThERIA ANTIBODIES	1 mL Serum - Plastic vial (spun barrier tube).	>0.01 U/mL (Enzyme Immunoassay)
	DIRECT COOMBS TEST	See Coombs, Direct.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0379	DISOPYRAMIDE (NORPACE®)	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 2-5 mg/L Potentially Toxic: >5 mg/L (Immunoassay)
	DNA ANTIBODIES	See Anti-DNA Antibodies.	
0380	DNA CELL CYCLE ANALYSIS	0.1 gram well-trimmed, non-hemorrhagic Frozen Tumor Tissue - Special containers are available from laboratory on request. The tumor should be trimmed of fat and normal tissue, then the tumor should be frozen with liquid nitrogen or Kryo-Kwick and maintained at -70°C or below. Ship frozen on dry ice. Also see Flow Cytometry section. If submitting tissue for ERA/PRA also, submit a total of 0.3 gram well-trimmed tumor tissue. See Estrogen and Progesterin Receptor Assays for additional information.	See laboratory report. (Flow Cytometry)
	DOLOPHINE®	See Methadone.	
	DOPAMINE	See Catecholamines, Fractionated and Total.	
	DORIDEN®	See Glutethimide.	
0381	DOXEPIN (SINEQUAN®) (Includes Nordoxepin Metabolite) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Total</u> <u>mcg.L</u> Therapeutic: 100-250 Potentially Toxic: >300 (High Pressure Liquid Chromatography)
0382	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	DOXYCYCLINE MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
0383	DRUG CONFIRMATION BY GC/MS	25 mL Random Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
	DRUG SCREEN, TOXICOLOGY	See Toxicology Drug Screen.	
0384	DRUG IDENTIFICATION	25 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
1383	DRUG SCREEN, FOR DRUG OF ABUSE WITH CONFIRMATION (8 DRUGS PANEL), INCLUDES: Amphetamines Barbiturates Benzodiazepines Cocaine (Metabolite) Marijuana (Cannabinoids) Methadone Opiates Phencyclidine (PCP)	50 mL random urine. Use Chain of Custody Kit.	None detected Screen: Enzyme Immunoassay Confirmation: Gas Chromatography/Mass Spectrometry All positive drugs on screening will be confirmed by GC/MS. Chain of custody is required. Please contact Lab or your sale representative for special handling instructions and kit. (An additional charge is applied for chain of custody procedure). When confirmatory testing is performed there will be an added charge for each drug confirmed.
0385	DYPHYLLINE (LUFYLLIN®)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 12-25 mg/L Potentially Toxic: >25 mg/L (High Pressure Liquid Chromatography)
	EAR CULTURE, EXTERNAL	See Culture, Lesion.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	EASTERN EQUINE ENCEPHALITIS ANTIBODIES	See Arbovirus Antibody Panel.	
	EBV	See Epstein-Barr Virus.	
0386	ECHOVIRUS ANTIBODIES (TYPES 4, 9, 11, 30)	2 mL Serum - Plastic vial (spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection. Titer: ≥1:8 Antibody detected. Suggestive of an infection at some undetermined time in the past. Significant antigenic cross-reactivity occurs within the Echovirus group. (Complement Fixation)
	ELECTROLYTE PANEL	See Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																		
0387	ENCAINIDE	<p>3 mL Frozen Serum or Plasma - Plastic vial (spun barrier tube).</p> <p>Reference Range</p> <p>Therapeutic Range - not yet established. The following ranges have been observed for steady state plasma concentrations after 3-5 days of the usual oral maintenance dose of 150-250 mg/day. Two genetically determined metabolic patterns are observed in the American Caucasian population, extensive (90%) and poor (10%) metabolizers.</p> <table border="1"> <thead> <tr> <th></th> <th colspan="2">Metabolic Phenotype</th> </tr> <tr> <th></th> <th><u>Extensive</u></th> <th><u>Poor</u></th> </tr> <tr> <th></th> <th>mcg/L</th> <th>mcg/L</th> </tr> </thead> <tbody> <tr> <td>Encainide</td> <td>25-140</td> <td>250-700</td> </tr> <tr> <td>ODE metabolite</td> <td>90-290</td> <td>Under 90</td> </tr> <tr> <td>MODE metabolite</td> <td>50-235</td> <td>Under 90</td> </tr> </tbody> </table> <p>The best correlation between drug levels and therapeutic efficacy is found by combining the levels of Encainide and its metabolites.</p>		Metabolic Phenotype			<u>Extensive</u>	<u>Poor</u>		mcg/L	mcg/L	Encainide	25-140	250-700	ODE metabolite	90-290	Under 90	MODE metabolite	50-235	Under 90	<p>See below. (High Pressure Liquid Chromatography)</p>
	Metabolic Phenotype																				
	<u>Extensive</u>	<u>Poor</u>																			
	mcg/L	mcg/L																			
Encainide	25-140	250-700																			
ODE metabolite	90-290	Under 90																			
MODE metabolite	50-235	Under 90																			
	ENCEPHALITIS EVALUATION, COMPREHENSIVE	See Panels and Profiles section.																			
0388	ENOLASE, NEURON SPECIFIC (For Investigational Use only)	1 mL Frozen Serum - Plastic vial (spun barrier tube). Plasma is not acceptable. Separate serum from cells within 20-30 minutes. Hemolyzed specimens are not acceptable.	<10 mcg/L (Radioimmunoassay)																		

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0389	ENTAMOEBIA HISTOLYTICA ANTIBODY, SERUM	1 mL Serum - Plastic vial (spun barrier tube).	<40 EU/mL. A negative result generally excludes amoebic abscess from differential diagnosis but does not completely rule out the possibility of non-invasive amoebiasis. (Immunoassay)
0390	<u>ENTEROBIUS VERMICULARIS</u> (PINWORM TAPE TEST)	Pinworm Paddle.	Negative for <u>Enterobius vermicularis</u> . (Direct microscopic examination of clear tape/paddle preparation)
0391	EOSINOPHIL COUNT BLOOD	7 mL EDTA Whole Blood - 1 full lavender top tube. Maintain at room temperature.	50-400 cells/mcL (Flow Cytometry, Automated Cytochemistry and/or Microscopy)
0392	EYE	2 Air-Dried Eye Smears.	No normal range has been established. (Microscopic Examination)
0393	NASAL SMEAR	2 Air-Dried Nasal Smears.	<20%. (Microscopic Examination)
0394	SPUTUM	2 Air-Dried Sputum Smears.	No normal range has been established. (Microscopic Examination)
0395	EPHEDRINE	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
	EPIDERMAL ANTIBODIES	See Anti-Epidermal Antibodies.	
	EPINEPHRINE AND NOREPINEPHRINE	See Catecholamines, Fractionated & Total.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0396	EPSTEIN-BARR VIRUS ANTIBODIES, COMPREHENSIVE (Includes Viral Capsid, Antigen IgG and IgM Antibodies, Early Antigen Antibody and Nuclear Antigen Antibody)	2 mL Serum - Plastic vial (spun barrier tube).	See laboratory report. (Indirect Immunofluorescence)
0397	EPSTEIN-BARR VIRUS ANTIBODIES SCREEN (Includes Viral Capsid Antigen IgG and IgM Antibodies, and Nuclear Antigen Antibody)	1 mL Serum - Plastic vial (spun barrier tube).	See laboratory report. (Indirect Immunofluorescence)
0398	EPSTEIN-BARR VIRUS CAPSID ANTIBODIES (Includes Viral Capsid Antigen IgG and IgM Antibodies)	1 mL Serum - Plastic vial (spun barrier tube).	See laboratory report. (Indirect Immunofluorescence)
	EQUANIL®	See Meproamate.	
	ERA	See Estrogen and Progestin Receptor Assays.	
	ERA/PRA	See Estrogen and Progestin Receptor Assays.	
	ERYTHROCYTE PROTOPORPHYRIN (FEP)	See Protoporphyrin, Free Erythrocyte.	
	ERYTHROMYCIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
0399	ERYTHROPOIETIN	1 mL Serum - Plastic vial (spun barrier tube). Lipemic and hemolyzed specimens are unacceptable.	<19 mU/mL. In patients with normal erythropoietin (EPO) production, EPO levels rise above 19 mU/mL as hematocrit falls below 30%. EPO levels below 19 mU/mL in the presence of a hematocrit less than 30% indicate impaired production of EPO. (Enzyme Linked Immunosorbent Assay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																				
0400	ESR (SEDIMENTATION RATE)	EDTA Whole Blood - 1 full lavender top tube. Specimen must be delivered to laboratory within 12 hours. Do not mail specimen.	Male: 0-15 mm in 1 hour Female: 0-20 mm in 1 hour (Modified Westergren)																				
	ESTERASE INHIBITOR C1	See C1 Esterase Inhibitor.																					
0401	ESTRADIOL	1 mL Serum - Plastic vial (spun barrier tube). Indicate patient's sex on test request form.	<table> <tr> <td><u>Male</u></td> <td><u>pg/mL</u></td> </tr> <tr> <td>Prepubertal:</td> <td><20</td> </tr> <tr> <td>Adult:</td> <td><50</td> </tr> <tr> <td><u>Female</u></td> <td></td> </tr> <tr> <td>Prepubertal:</td> <td><20</td> </tr> <tr> <td>Follicular:</td> <td>10-200</td> </tr> <tr> <td>Ovulatory:</td> <td>100-400</td> </tr> <tr> <td>Luteal:</td> <td>15-260</td> </tr> <tr> <td>Postmenopausal:</td> <td><50</td> </tr> </table> (Radioimmunoassay)	<u>Male</u>	<u>pg/mL</u>	Prepubertal:	<20	Adult:	<50	<u>Female</u>		Prepubertal:	<20	Follicular:	10-200	Ovulatory:	100-400	Luteal:	15-260	Postmenopausal:	<50		
<u>Male</u>	<u>pg/mL</u>																						
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Luteal:	15-260																						
Postmenopausal:	<50																						
	ESTRADIOL RECEPTOR	See Estrogen and Progestin Receptor Assays.																					
0402	ESTRIOL, UNCONJUGATED	1 mL Serum - Plastic vial (spun barrier tube). Separate from cells within 1 hour following collection.	<table> <tr> <td>Male:</td> <td><2 ng/mL</td> </tr> <tr> <td>Nonpregnant</td> <td></td> </tr> <tr> <td>Female:</td> <td><2 ng/mL</td> </tr> <tr> <td>Pregnant Female:</td> <td></td> </tr> <tr> <td>Weeks of</td> <td></td> </tr> <tr> <td><u>Gestation</u></td> <td><u>ng/mL</u></td> </tr> <tr> <td>28-32</td> <td>3.7-17.8</td> </tr> <tr> <td>32-36</td> <td>4.5-28.1</td> </tr> <tr> <td>36-38</td> <td>8.2-38.0</td> </tr> <tr> <td>38-40</td> <td>8.6-38.8</td> </tr> </table> (Radioimmunoassay)	Male:	<2 ng/mL	Nonpregnant		Female:	<2 ng/mL	Pregnant Female:		Weeks of		<u>Gestation</u>	<u>ng/mL</u>	28-32	3.7-17.8	32-36	4.5-28.1	36-38	8.2-38.0	38-40	8.6-38.8
Male:	<2 ng/mL																						
Nonpregnant																							
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38-40	8.6-38.8																						

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0403	ESTROGEN AND PROGESTIN RECEPTOR ASSAYS	0.3 gram Frozen well-trimmed, non-hemorrhagic tumor tissue - Special plastic container. Obtain kit from laboratory. Excise fatty tissue. Keep samples cold, transfer to plastic container and freeze within 30 minutes. Do not place tissue in paraffin or formalin or OCT® media or wrap in gauze, foil or other substances. The plastic container containing the tissue must be frozen with dry ice and shipped to the laboratory on dry ice. Because of the extremely labile nature of the receptors, utmost care must be taken in processing the specimen. We cannot perform analysis on thawed samples.	<u>Breast and Endometrial Tissue Receptor Activity</u> None detected: <3 fmoles/ mg cytosol protein. Equivocal: 3-9 fmoles/mg cytosol protein. Positive: ≥10 fmoles/mg cytosol protein. (Radioreceptor Assay)
	ESTROGEN AND PROGESTIN RECEPTOR ASSAYS WITH DNA CELL CYCLE ANALYSIS	See Breast Cancer Evaluation in Panels and Profiles section.	
	ESTROGEN RECEPTOR ASSAY	See Estrogen and Progestin Receptor Assays.	
0404	ESTROGEN, TOTAL	2 mL Serum - Plastic vial (spun barrier tube). State age and sex on specimen container and on the test request form.	<u>pg/mL</u> Male: 40-115 <u>Female</u> Follicular: 61-394 Pre-Ovulatory: 122-437 Luteal: 156-350 Post-Menopausal: 0-40 Child: 0-40 (Radioimmunoassay)
0405	ESTROGENS, FRACTIONATED (Includes Estradiol and Estrone)	10 mL Serum - Plastic vial (2 spun barrier tubes).	See individual listings for Estradiol and Estrone. (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0406	ESTRONE	7 mL Frozen Serum - Plastic vial (2 spun barrier tubes). Please indicate patient's sex on test request form.	<p style="text-align: right;"><u>pg/mL</u></p> <p>Male: 10-50</p> <p><u>Female</u></p> <p>Follicular: 30-100</p> <p>Ovulatory: >150</p> <p>Luteal: 90-160</p> <p>Post-Menopausal: 20-40</p> <p>(Radioimmunoassay)</p>
	ETHANOL	See Alcohol, Ethyl.	
0407	ETHCHLORVYNOL (PLACIDYL®) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<p>Therapeutic: 2.0-10.0 mg/L</p> <p>Potentially Toxic: >20.0 mg/L</p> <p>(Spectrophotometry)</p>
0408	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Spectrophotometry/ Colorimetry)
0409	ETHOSUXIMIDE (ZARONTIN®)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<p>Therapeutic: 40-100 mg/L</p> <p>Potentially Toxic: >100 mg/L</p> <p>(Immunoassay)</p>
0410	ETHOTOIN (PEGANONE®)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<p>Therapeutic: 15-50 mg/L</p> <p>Potentially Toxic: >50 mg/L</p> <p>(Gas Chromatography)</p>
	ETHYL ALCOHOL	See Alcohol, Ethyl.	
0411	ETHYLENE GLYCOL	2 mL Serum - Plastic vial (spun barrier tube).	<p>Normal: None detected.</p> <p>Potentially Toxic: Any Significant Amount.</p> <p>(Gas Chromatography)</p>

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0412	EUGLOBULIN LYSIS TIME	1.5 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. Separate plasma and freeze at -70°C (dry ice) immediately.	>60 Minutes (Clot Lysis)
	EXTENDED IMMUNODEFICIENCY PANEL	<p>Clinical Utility: The extended lymphocyte profile includes both phenotypic markers and lymphocyte activation markers. This profile may be useful in the evaluation of immune activation in a variety of clinical situations such as viral infections, autoimmune disorders or transplant rejection.</p> <p>WBC total and absolute lymphocytes % and absolute CD3+, CD3+DR+ % and absolute CD4+, CD4+CD29+, CD4+CD45+ % and absolute CD8+, CD8+CD57+ % and absolute CD19+ % and absolute CD3-16+56+ Helper/Suppressor ratio</p>	
	EXTRACTABLE NUCLEAR ANTIGEN	See Sm & RNP Antibodies.	
	EYE CULTURE	See Culture, Lesion.	
	FACTORS, COAGULATION	See Coagulation Factors.	
	FATIGUE PROFILES	See Panels and Profiles section.	
0413	FATTY ACIDS, FREE	1 mL Frozen EDTA (lavender top tube) or Fluoridated and Oxalated Plasma (gray top tube) - Transfer plasma to plastic vial and freeze. Heparinized samples are not acceptable.	0.19-0.9 mEq/L (Spectrophotometry)
	FEBRILE AGGLUTININS	See Agglutinins, Febrile.	
	FECAL FATS	See Lipids, Total, Feces.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	FEP	See Protoporphyrin, Free Erythrocyte.	
0414	FERRITIN	1 mL Serum - Plastic vial (spun barrier tube).	<u>ng/mL</u> Male: 15-445 <u>Female</u> Premenopausal: <235 Postmenopausal: 6-270 Children (prepubertal): 8-140 (Radioimmunoassay)
	FETAL HEMOGLOBIN	See Hemoglobin By Alkali Denaturation, Fetal.	
	FIBRIN DEGRADATION PRODUCTS	See Fibrin Split Products.	
0415	FIBRIN SPLIT PRODUCTS BLOOD SEMI-QUANTITATIVE	2 mL Whole Blood. Collect in special tube containing trypsin inhibitor and thrombin, supplied by Distribution Center on request. Mix gently by inversion until blood clots. Maintain at room temperature.	<10 mcg/mL (Latex Agglutination)
0416	FIBRINOGEN	5 mL Citrated Whole Blood (blue top tube). If specimen will not reach laboratory within 24 hours, centrifuge sample. Transfer plasma to plastic vial and keep at room temperature. Stable 2 days at room temperature.	200-400 mg/dL (Thrombin Clotting Time)
	FIBRINOLYSIN	See Euglobulin Lysis Time.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	FINE NEEDLE ASPIRATION BIOPSY	<p>There are several variants of the Fine Needle Aspiration Biopsy technique. We recommend the following procedure:</p> <ol style="list-style-type: none"> 1. Label 8-10 glass slides with the patient's name on the frosted and prior to starting the procedure. 2. If local anesthesia is used, insert the needle adjacent to but not into the lesion. Anesthetizing solution could dilute or distort the specimen and hinder achieving an accurate diagnosis. 3. Attach a 22-, 23-, or 25-gauge needle to a 20-mL syringe. 4. Insert syringe into a fine needle aspiration syringe holder. 5. Insert needle into lesion. 6. While applying negative pressure, move needle in short, stabbing motions, changing angle of direction within the lesion. 7. Release negative pressure, <u>then</u> remove needle. Specimen should not be drawn up into barrel of the syringe. Pressure should be released as fluid appears in the needle hub. <u>The cells and tissue fragments obtained from a solid lesion should remain in the barrel of the needle.</u> 8. After withdrawing the needle, remove it from the syringe and fill the syringe with air. 9. Reattach the needle and carefully eject one drop of specimen onto the slide. 10. Use another slide to smear the aspirated material. 11. Fix both slides immediately (within a few seconds) using cytology spray fixative or immerse in 95% ethyl alcohol for 20 minutes. 12. This procedure should be repeated 3-4 times (6-8 slides) with an attempt to sample different areas of the mass each time. 13. If blood, fluid or cellular material in excess of one drop is obtained with a needle pass, the excess should be expressed into a container of 70% ethyl alcohol. The needle and syringe should be rinsed with this same alcohol. Submit the liquid specimen with the fixed slides using one request form. 14. Clinical information is required for the pathologist to render a diagnosis. Please indicate on the request form the specific site, clinical diagnosis, whether the lesion is solid or cystic and gross appearance of the aspirate if applicable. <p>Alternate Specimen Preparation Method (For Bloody or Fluid Specimens):</p> <ol style="list-style-type: none"> 1. Perform steps 1-7 above. 2. Eject specimen directly into container of 70% ethyl alcohol. 3. Flush syringe with same alcohol. 4. Submit separate body sites or lesions in separate, appropriately labeled containers. 5. Provide <u>all pertinent</u> clinical information. Indicate if lesion is solid or cystic. 	
	FIORINAL®	See Butalbital.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0417	FLECAINIDE (TAMBOCOR®)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 0.2-1.0 mg/L Potentially Toxic: >1.0 mg/L (Fluorescent Polarization Immunoassay)
	FLUORESCENT TREPONEMAL ANTIBODY-ABSORPTION	See FTA-ABS.	
0418	FLUORIDE	3 mL Serum - Plastic vial (spun barrier tube). Collect blood in plastic syringe. Transfer to a plastic vial (spun barrier tube) and allow to clot. Centrifuge and transfer to plastic vial (spun barrier tube). Do not expose to glass.	Normal: <0.1 mg/L Therapeutic: <0.44 mg/L (Ion Selective Electrode)
0419	FLUOXETINE (PROZAC®)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	See laboratory report. (Gas Chromatography)
0420	FLUPHENAZINE SERUM	3 mL Serum - Plastic vial. Plasma also acceptable. Do not collect in serum separator tube.	Therapeutic: 5-20 ng/mL (High Pressure Liquid Chromatography)
0421	URINE	5 mL Urine - Plastic vial.	No reference range established. (High Pressure Liquid Chromatography)
	FLURAZEPAM	See Dalmane®.	
0422	FOLIC ACID RBC	2 mL Frozen EDTA Whole Blood (lavender top tube) - Plastic vial. Mix well. Transfer plasma to plastic vial and freeze. Do not freeze in glass. Record hematocrit value on both the vial and the test request form.	235-725 ng/mL (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0423	SERUM	1 mL Serum - Plastic vial (spun barrier tube). Fasting specimen preferred. Separate serum from the clot, transfer serum to a plastic vial (spun barrier tube) within one hour of collection. Avoid hemolysis.	<u>ng/mL</u> Normal: >3.1 Indeterminate: 2.8-3.1 Low: <2.8 (Radioimmunoassay)
	FOLLICLE STIMULATING AND LUTEINIZING HORMONES	See FSH and LH in Panels and Profiles section.	
0424	FOLLICLE STIMULATING HORMONE (FSH)	1 mL Serum - Plastic vial (spun barrier tube). State patient's age and sex on the test request form.	<u>U/mL</u> Male: 1.0-10.5 <u>Female</u> Follicular: 2.4-9.3 Ovulatory: 3.9-13.3 Luteal: 0.6-8.0 Postmenopausal: 31-134 <u>Child (2-11 yrs)</u> Male: <2.0 Female: <2.5 (Time-Resolved Fluoroimmunoassay)
0425	FORMALDEHYDE (AS FORMIC ACID) BLOOD	5 mL Heparinized Blood.	Formic Acid is a metabolite of and an index of exposure to formaldehyde and other precursors. Normal Blood average: 5 mcg/mL (Range: 0-12). (Gas Chromatography)
0426	URINE	10 mL Urine - Plastic container. Collect specimen at end of work shift.	Formic Acid is a metabolite of and an index of exposure to formaldehyde and other precursors. Normal Urine average: 19 mcg/mL (Range: 0-27) (Gas Chromatography)
	FRAGILE X CHROMOSOME ANALYSIS	See Chromosome Analysis, Fragile X in Cytogenetics section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	<u>FRANCISELLA TULARENSIS</u> AGGLUTINATION	See Tularemia Agglutinins.	
	FREE ERYTHROCYTE PROTOPORPHYRIN	See Protoporphyrin, Free Erythrocyte.	
	FREE FATTY ACIDS	See Fatty Acids, Free.	
	FREE PLUS WEAKLY BOUND TESTOSTERONE	See Testosterone, Free and Weakly Bound.	
	FREE T3	See Triiodothyronine, Free.	
	FREE T4	See Thyroxine, Free.	
	FREE T-4 BY EQUILIBRIUM DIALYSIS	See Thyroxine, by Equilibrium Dialysis, Free.	
	FREE TESTOSTERONE	See Testosterone, Free and Weakly Bound.	
	FREE THYROXINE	See Thyroxine, Free.	
	FREE THYROXINE INDEX	See Thyroid Panel.	
	FREE TRIIODOTHYRONINE	See Triiodothyronine, Free.	
0427	FRUCTOSAMINE	1 mL Frozen Serum - Plastic vial. Hemolyzed or icteric specimens are not acceptable.	1.9-2.7 mmol/L (Spectrophotometry)
	FSH	See Follicle Stimulating Hormone.	
	FSH AND LH	See Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	FT4	See T-4 (Thyroxine), Free.	
0428	FTA-ABS (Fluorescent Treponemal Antibody-Absorption)	1 mL Serum - Plastic vial (spun barrier tube).	Non-reactive. (Indirect Immunofluorescence)
	FUNCTIONAL CELLULAR IMMUNE PANEL	<p>Clinical Utility: In addition to quantitating the cellular immune status, mitogen stimulation is used to determine the ability of the lymphocytes to respond to stimuli. This panel is useful for patients who are using potentially immunosuppressive therapies such as AZT, chemotherapy, or radiation therapy.</p> <p>WBC total and absolute lymphocytes % CD3+, 4+, 8+ lymphocytes Absolute CD3+, 4+, 8+ lymphocytes Helper/Suppressor ratio Lymphocyte stimulation by multiple mitogens</p> <p>Note: This panel is available through Bio-Science Laboratory only.</p>	
0429	FUNGUS ANTIBODY PANEL CSF	3 mL CSF - Plastic vial.	<p><u>Aspergillus:</u> None detected <u>Blastomyces:</u> None detected <u>Coccidioides:</u> None detected <u>Histoplasma</u> Mycelial: None detected Yeast: None detected (Complement Fixation)</p>
0430	SERUM	3 mL Serum - Plastic vial (spun barrier tube).	<p><u>Aspergillus:</u> <1:8 <u>Blastomyces:</u> <1:8 <u>Coccidioides:</u> <1:2 <u>Histoplasma</u> Mycelial: <1:8 Yeast: <1:8 (Complement Fixation)</p>
	FUNGUS IDENTIFICATION	<ul style="list-style-type: none"> - Indicate Source. - Submit organism on Sabouraud or other agar slant in screw-cap tube. - Provide available laboratory data and source. 	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	G-6-PDH	See Glucose-6-Phosphate Dehydrogenase.	
0431	GALACTOSEMIA SCREEN	3 circles of Special Filter Paper saturated with Blood - air-dried for one hour. Request special filter paper from laboratory. 1 mL Heparinized Blood (green top tube) also acceptable.	See laboratory report. (Fluorometry)
0432	GAMMA-GLUTAMYL TRANSFERASE (GGT)	2 mL Serum - Plastic vial (spun barrier tube). Avoid hemolysis.	Male: 0-65 U/L Female: 0-45 U/L (Spectrophotometry)
	GARAMYCIN®	See Gentamicin.	
0433	GASTRIC ANALYSIS	10 mL Gastric Fluid - Plastic container. No preservative. Patient must be on a 12-hour fast, including water.	Free HCl: 0-40 mEq/L Total Acidity: 10-60 mEq/L (Titration)
0434	GASTRIN	1 mL Frozen Serum - Plastic vial (spun barrier tube). Fasting specimen preferred.	Fasting: <100 pg/mL Non-fasting specimens typically yield values of ≤200 pg/mL (Radioimmunoassay)
0435	GC CULTURE	See Culture, <u>Neisseria</u> .	
0436	GEMONIL® (METHARBITAL) (Includes Barbitol Metabolite)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 10-35 mg/L Potentially Toxic: >40 mg/L (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0437	GENTAMICIN (GARAMYCIN®)	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Therapeutic</u> <u>mg/L</u> Peak: 5.0-10.0 Trough: 1.0-2.0
0438	PEAK		
0439	TROUGH	Peak sample should be drawn 60 minutes after an intramuscular injection; 30 minutes after the end of a 30-minute intravenous infusion; or within 15 minutes after a 60-minute intravenous infusion. Trough sample should be drawn immediately prior to the next dose.	<u>Potentially Toxic:</u> Peak: >12.0 Trough: >2.0 (Immunoassay)
	GGT	See Gamma-Glutamyl Transferase.	
	GIARDIA ANTIGEN	Submit stool in 10% formalin or SAF fixative; store at room temperature or submit stool in clean leak-proof plastic container; refrigerate.	
0440	GLOBULIN, TOTAL (Includes Protein, Total, Albumin, Calculated Globulin and Albumin/Globulin Ratio)	2 mL Serum - Plastic vial (spun barrier tube).	1.5-3.8 gm/dL (Spectrophotometry)
	GLOMERULAR BASEMENT MEMBRANE ANTIBODIES	See Anti-Glomerular Basement Membrane Antibodies.	
0441	GLUCAGON	2 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial. Centrifuge at 4°C. Transfer plasma to plastic vial and freeze immediately.	50-200 pg/mL (Radioimmunoassay)
0442	GLUCOSE CSF	2 mL Frozen CSF - Plastic vial.	40-80 mg/dL (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD						
0443	GESTATIONAL SCREEN	5 mL Fluoridated and Oxalated Whole Blood - gray top tube. Avoid hemolysis. The test is performed between the 24th and 28th weeks of gestation. The patient is given 50 grams of glucose and a single blood specimen is obtained one hour later. Fasting is not required.	70-139 mg/dL (Spectrophotometry)						
0444	PLASMA	5 mL Fluoridated and Oxalated Whole Blood (gray top tube) - Plastic vial. Patient should fast for 10-16 hours prior to the test. Avoid hemolysis. Note hours fasting on test request form.	<u>Fasting Ranges</u> <table border="0"> <tr> <td><u>Age</u></td> <td><u>mg/dL</u></td> </tr> <tr> <td>12-50 years</td> <td>70-115</td> </tr> <tr> <td>>50 years</td> <td>80-125</td> </tr> </table> (Spectrophotometry)	<u>Age</u>	<u>mg/dL</u>	12-50 years	70-115	>50 years	80-125
<u>Age</u>	<u>mg/dL</u>								
12-50 years	70-115								
>50 years	80-125								
0445	POSTPRANDIAL/2 HOUR	5 mL Fluoridated and Oxalated Whole Blood (gray top tube) - Plastic vial. Specimen should be collected 2 hours after eating a meal.	<200 mg/dL (Spectrophotometry)						
	URINE QUALITATIVE	See Urinalysis.							
0446	QUANTITATIVE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 1 gram boric acid or 100 mg NaF to container at start of collection. Record total volume on both the specimen container and the test request form.	<0.3 g/24 hrs (Spectrophotometry)						

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	GLUCOSE TOLERANCE TESTS:		
	2 specimens		
0447	3 specimens	5 mL Fluoridated and Oxalated	<u>Fasting Ranges</u>
0448	4 specimens	Whole Blood (gray top tube).	<u>Age</u> <u>mg/dL</u>
0449	5 specimens	Patient should fast for 10-16	12-50 yrs 70-115
0450	6 specimens	hours prior to test. Label each	>50 yrs 80-125
0451	7 specimens	tube appropriately (1 hr, 2 hrs,	Also see laboratory report.
0452	8 specimens	etc.) and submit all specimens in	(Spectrophotometry)
0453	9 specimens	the series at the same time.	
0454	10 specimens	Indicate the total number of	
0455	11 specimens	specimens submitted on the test	
0456	12 specimens	request form.	
0457	13 specimens		
0458			
0459	DIAGNOSIS OF DIABETES 4 SPECIMENS	5 mL Fluoridated and Oxalated Whole Blood - (gray top tube) for each specimen. Avoid hemolysis. Patient should fast for 10-16 hours prior to test. Adult patients are given 75 grams of glucose immediately after obtaining the fasting specimen. For children, the glucose dose is 1.75 g/kg ideal body weight. Additional specimens are obtained at 1/2 hour, 1 hour and 2 hours.	<u>Fasting</u> <u>mg/dL</u> <50 yrs 70-115 >50 yrs 80-125 1/2 Hour <200 1 Hour <200 2 Hours <200 Reference ranges have been established by the National Diabetes Data Group. The test is considered positive when the 2-hour value and one prior value exceed 200 mg/dL. (Spectrophotometry)
0460	GESTATIONAL 4 SPECIMENS	5 mL Fluoridated and Oxalated Whole Blood (gray top tube) for each specimen. Avoid hemolysis. This test is performed between the 24th and 28th weeks of gestation. Fasting specimen required. The patient should fast for 10-16 hours. The patient is given 100 grams of glucose immediately after obtaining the fasting blood specimen. Additional specimens are obtained at 1, 2, and 3 hours.	<u>mg/dL</u> Fasting: 70-105 1 hour: 70-190 2 hours: 70-165 3 hours: 70-145 (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0461	GLUCOSE-6-PHOSPHATE DEHYDROGENASE (G-6-PDH) QUALITATIVE	1 mL EDTA Whole Blood (lavender top tube) - Plastic vial. Do not freeze. 0.5 mL blood in 10 mL vial containing dried Alsever's solution is also acceptable.	Enzyme activity detected. (Fluorometry)
0462	QUANTITATIVE	EDTA Whole Blood - 1 full lavender top tube. If CBC is also requested, please submit additional EDTA tube. Do not freeze.	See laboratory report. (Spectrophotometry)
0463	GLUCOSEPHOSPHATE ISOMERASE, QUALITATIVE	1 mL EDTA Whole Blood (lavender top tube). Do not freeze.	Enzyme activity detected (Fluorometry)
0464	GLUTAMINE	1 mL Frozen CSF - Plastic vial.	6-15 mg/dL (Spectrophotometry)
0465	GLUTATHIONE REDUCTASE SCREEN	1 mL EDTA Whole Blood (lavender top tube) - Plastic vial. Do not freeze.	Enzyme activity detected. (Fluorometry)
0466	GLUTETHIMIDE (DORIDEN®) SERUM	4 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 3.0-7.0 mg/L Potentially Toxic: >10.0 mg/L (Gas Chromatography)
0467	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
0468	GLYCOSYLATED ALBUMIN	1 mL Plasma (lavender top tube) - Plastic vial. Frozen heparinized plasma (green to tube) also acceptable. Serum is not acceptable.	1.5-2.6% of Total Serum Albumin. (Column Chromatography and Nephelometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	GLYCOSYLATED HEMOGLOBIN	See Hemoglobin A1c by IEC.	
	GLYCOSYLATED HEMOGLOBIN A1	See Hemoglobin A1c.	
0469	GOLD SERUM	3 mL Serum - Plastic vial (spun barrier tube).	Therapeutic: 38-500 mcg/dL Potentially Toxic: >500 mcg/dL (Atomic Absorption)
	GONADOTROPIN, CHORIONIC	See Chorionic Gonadotropin.	
0470	GONOCOCCAL ANTIBODIES CSF	1 mL CSF - Plastic vial. Indicate specimen type on both the specimen container and the test request form.	<1:1 Antibody not detected. (Complement Fixation)
0471	SERUM	2 mL Serum - Plastic vial (spun barrier tube). Indicate specimen type on both the specimen container and the test request form.	<1:8 Antibody not detected. (Complement Fixation)
	GONORRHEA CULTURE	See Culture, <u>Neisseria</u> .	
	GRAM STAIN	Any Source. - Submit an air-dried smear on microscope slide; fix with 95% alcohol or gentle flame. - Specify source of specimen and type of infection.	
0472	GRANULOCYTE ANTIBODIES	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Flow Cytometry)
	GROWTH HORMONE	See Human Growth Hormone.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	GUAIAAC	See Occult Blood.	
	<u>HAEMOPHILUS DUCREYI</u> CULTURE	See Culture, <u>Haemophilus ducreyi</u> in Microbiology section.	
1047	<u>HAEMOPHILUS INFLUENZAE B</u> ANTIGEN BY LATEX AGGLUTINATION	1 mL Serum or CSF 10 mL Random Urine or other Body Fluid - CSF: Sterile lumbar puncture. Collect specimen in sterile screw-cap tube. - If serum is submitted, transfer serum from red top tube to plastic vial (spun barrier tube). - Indicate type of fluid submitted and patient's age on test request form.	
1048	<u>HAEMOPHILUS INFLUENZAE B</u> PRP ANTIBODY (VACCINE RESPONSE)	1 mL Serum - Plastic vial (spun barrier tube).	
	HAGEMAN FACTOR	See Coagulation Factor XII.	
	HALDOL®	See Haloperidol.	
0473	HALOPERIDOL (HALDOL®)	5 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 3-20 mcg/L Potentially Toxic: >20 mcg/L (Gas Chromatography)
0474	HAPTOGLOBIN	1 mL Serum - Plastic vial (spun barrier tube).	13-163 mg/dL (Nephelometry)
	HBcAb	See Hepatitis B Core Antibody.	
	HBeAb	See Hepatitis Be Antibody.	
	HBeAg	See Hepatitis Be Antigen.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	HBsAb	See Hepatitis B Surface Antibody.	
	HBsAg	See Hepatitis B Surface Antigen.	
	HBV DNA	See Hepatitis B Virus DNA.	
	HCG	See Chorionic Gonadotropin.	
	HCV	See Hepatitis C Virus Antibody.	
	HDL CHOLESTEROL	See Cholesterol, High Density Lipoprotein.	
	HDV	See Hepatitis Delta Virus Antibody.	
	HEAVY METALS EVALUATION	See Panels and Profiles section.	
0475	HEINZ BODIES STAIN	EDTA Whole Blood (lavender top tube). Stable 2 days at room temperature.	None seen. (Microscopic Examination)
	<u>HELICOBACTER PYLORI ANTIBODIES</u>	See <u>Campylobacter pylori</u> .	
	<u>HELICOBACTER PYLORI CULTURE</u>	See Culture, <u>Helicobacter pylori</u> .	
	HELPER/SUPPRESSOR T CELL RATIO	See T-Helper/Suppressor Panel	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0476	HEMATOCRIT (PCV)	EDTA Whole Blood - 1 full lavender top tube.	Male: 41-50% Female: 35-46% (Flow Cytometry)
	HEMOGLOBIN A, C, F, S	See Hemoglobin Electrophoresis.	
0477	BLOOD	EDTA Whole Blood - 1 full lavender top tube.	Male: 13.8-17.2 g/dL Female: 12.0-15.6 g/dL (Flow Cytometry)
0478	BY ALKALI DENATURATION, FETAL	2 mL EDTA Whole Blood - lavender top tube.	<u>Total</u> Newborn: 50-90% >2 years: <2% (Alkali Denaturation)
0479	ELECTROPHORESIS (Includes Hemoglobin A, A2, C, F, and S) (Abnormal hemoglobins are automatically confirmed by additional hemoglobin electrophoresis)	EDTA Whole Blood - 1 full lavender top tube. Submit additional lavender top tube if CBC is also requested. Fluoridated or oxalated whole blood (gray top tube) is also acceptable.	A: 96-98.5% A2: 1.5-4.0% C: 0% F: 0-2% S: 0% NOTE: It is suggested that Hemoglobin A2 quantitation by ion-exchange chromatography be requested when abnormalities in the A2 content are suspected. (Electrophoresis)
	FECES	See Occult Blood.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0480	PLASMA	2 mL Frozen EDTA Plasma (lavender top tube) or 2 mL Frozen Heparinized Plasma (green top tube) - Plastic vial. Patient must be relaxed. Use 18-gauge needle. Place tourniquet on upper arm. Puncture vein with as little trauma as possible. Draw 1 tube and discard. Remove tourniquet. Draw second tube; invert gently 2 to 3 times. Separate plasma from cells (second tube) and freeze plasma in plastic vial immediately. Hemolyzed samples are not acceptable.	<2.5 mg/dL (Spectrophotometry)
0481	HEMOGLOBIN AND HEMATOCRIT	EDTA Whole Blood - 1 full lavender top tube.	<u>Hemoglobin</u> Male: 13.8-17.2 g/dL Female: 12.0-15.6 g/dL <u>Hematocrit</u> Male: 41-50% Female: 35-46% (Flow Cytometry)
0482	HEMOGLOBIN A1 C by Ion Exchange Chromatography (IEC)	EDTA Whole Blood - 1 full lavender top tube. Submit additional lavender top tube, if CBC is also requested. Fluoridated and oxalated whole blood (gray top tube) is also acceptable.	3.4-6.1% of total hemoglobin (Ion Exchange Chromatography)
0483	by High Pressure Liquid Chromatography (HPLC)	1 mL Heparinized Whole Blood (green top tube) at 4°C or room temperature or Frozen EDTA Blood Cells (separate from plasma immediately and send 1 mL frozen RBCs). Specify methodology.	3.6-4.9% of total hemoglobin (High Pressure Liquid Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0484	HEMOGLOBIN A1, TOTAL by High Pressure Liquid Chromatography	1 mL Heparinized Whole Blood (green top tube). Specify Hemoglobin A1 total by High Pressure Liquid Chromatography.	5.1-7.8% of total hemoglobin (High Pressure Liquid Chromatography)
0485	HEMOGLOBIN A2 by Exchange Chromatography (IEC)	2 mL EDTA Whole Blood - lavender top tube. Submit additional lavender top tube, if CBC is also requested.	1.5-3.5% of total hemoglobin (Ion Exchange Chromatography)
	HEMOGLOBINOPATHY PROFILE	See Panels and Profiles section.	
0486	HEMOGLOBIN TOTAL, GLYCOSYLATED by Affinity Chromatography BLOOD	1 mL Heparinized Whole Blood (green top tube). Specify Hemoglobin by Affinity Chromatography, Total Glycated.	4.4-6.1% of total hemoglobin (Affinity Chromatography)
0487	HEMOPHILIA A CARRIER DETECTION PANEL	Three 1 mL Frozen Aliquots of Citrated Plasma (blue top tube) each drawn a minimum of one week apart. Separate plasma and freeze in plastic vials at -70°C. Submit all 3 samples together. Clearly label each sample with collection date. Stable 30 days frozen.	Coagulation Factor VIII Activity: 50-150% of normal von Willebrand Factor Antigen: >50% of normal. Activity to Antigen Ratio: >0.6 (Factor Deficient System, Enzyme Linked Immunosorbent Assay)
0488	HEMOQUANT™	2-3 grams Feces - Hemoquant container. Red meat should be excluded from the diet 3 days prior to collection. Obtain special collection kit from laboratory.	<3.0 mg Hemoglobin Equivalent/g feces (Fluorometry)
0489	HEMOSIDERIN STAIN	30 mL Fresh Urine - Plastic container. First morning sample is preferred.	None detected. (Prussian Blue)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	HEPATITIS PANELS	See Panels and Profiles section.	
0490	HEPATITIS A ANTIBODIES, TOTAL	2 mL Serum - Plastic vial (spun barrier tube).	None detected. (Immunoassay)
0491	IgM ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Immunoassay)
0492	HEPATITIS B CORE ANTIBODY, TOTAL (HBcAb) by Enzyme Immunoassay	2 mL Serum - Plastic vial (spun barrier tube).	None detected. (Enzyme Immunoassay)
0493	by Radioimmunoassay	2 mL Serum - Plastic vial (spun barrier tube).	None detected. (Radioimmunoassay)
0494	CORE IgM ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Enzyme Immunoassay)
0495	e ANTIBODY (HBeAb)	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Immunoassay)
0496	e ANTIGEN (HBeAg)	2 mL Frozen Serum - Plastic vial (spun barrier tube).	None detected. (Immunoassay)
	IMMUNITY PANEL	See Panels and Profiles section.	
	INFECTIVITY PANEL	See Panels and Profiles section.	
	MONITORING PANEL	See Panels and Profiles section.	
0497	SURFACE ANTIBODY (HBsAb)	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Immunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0498	SURFACE ANTIGEN (HBsAg)	2 mL Serum - Plastic vial (spun barrier tube).	None detected. (Immunoassay)
0499	VIRUS DNA	3 mL Frozen Serum - Plastic vial (spun barrier tube).	None detected. (DNA Probe)
0500	HEPATITIS C VIRUS ANTIBODY	2 mL Frozen Serum -Plastic vial (spun barrier tube).	Non-reactive. (Enzyme Immunoassay)
0501	HEPATITIS DELTA VIRUS ANTIBODY	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Immunoassay)
	HEPATITIS DELTA PANEL	See Panels and Profiles section.	
	HEPATITIS PANELS, ACUTE	See Panels and Profiles section.	
	HERPES CULTURE	See Culture, Herpes Simplex Virus.	
0502	HERPES SIMPLEX TYPES 1 AND 2 VIRUS (HSV) IgG ANTIBODIES	1 mL Serum - Plastic vial (spun barrier tube).	See laboratory report. (Enzyme Immunoassay)
0503	HERPES SIMPLEX TYPES 1 AND 2 VIRUS IgM ANTIBODIES	1 mL Serum - Plastic vial (spun barrier tube).	HSV 1: <1:10 HSV 2: <1:10 (Indirect Immunofluorescence)
3111	HERPES SIMPLEX VIRUS ANTIGEN BY DFA	Vesicle swab, Tissues, Throat, Nasopharyngeal Aspirate, or NP Swab.	Direct Fluorescent Antibody Staining
	HERPES ZOSTER VIRUS ANTIBODIES	See Varicella-Zoster Virus IgG Antibody.	
0504	HETEROPHILE DIFFERENTIAL ABSORPTION	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Agglutination)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0505	MONO SCREEN	1 mL Serum - Plastic vial (spun barrier tube).	None detected. (Agglutination)
0506	HEXACHLOROBENZENE	1 mL Serum - Wheaton vial. Avoid contact with plastic. Submit serum in mini-Wheaton vial with foil liner (available from laboratory)	Normal: <5 mcg/L Potentially Toxic: >5 mcg/L (Gas Chromatography)
0507	HGH (HUMAN GROWTH HORMONE)	1 mL Serum - Plastic vial (spun barrier tube).	<u>ng/mL</u> Adult: <8.0 Neonate: <40.0 Stimulated: >5.0 Suppressed: <1.0 (Radioimmunoassay)
	5-HIAA	See Hydroxyindoleacetic Acid, 5-.	
	HIGH DENSITY LIPOPROTEIN CHOLESTEROL	See Cholesterol, High Density Lipoprotein.	
	HIGH RISK PREGNANCY EVALUATION	See Panels and Profiles section.	
	HIRSUTISM EVALUATIONS	See Panels and Profiles section.	
0508	HISTAMINE BLOOD	1 mL Frozen Heparinized Whole Blood (green top tube) - Plastic vial. Do not send in glass container.	25-175 ng/mL (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0509	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 30 mL 6N HCl* to container at start of collection. Record total volume on both the specimen container and the test request form.	<114 mcg/24 hrs. (Radioimmunoassay)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
	HISTONE ANTIBODIES	See Anti-Histone Antibodies.	
	HISTOPLASMA ANTIBODIES BY COMPLEMENT FIXATION		
0510	CSF	1 mL CSF - Plastic vial.	Mycelial Titer: None detected. Yeast Titer: None detected. (Complement Fixation)
0511	SERUM	1 mL Serum - Plastic vial (spun barrier tube).	Mycelial Titer: <1:8 Yeast Titer: <1:8 (Complement Fixation)
0512	BY IMMUNODIFFUSION	2 mL Serum - Plastic vial (spun barrier tube). Specify methodology.	None detected. (Immunodiffusion)
	HIVAGEN™	See HIV-1 Antibodies Confirmation.	
	HIV-1 ANTIBODIES CONFIRMATION	1 mL Serum - Plastic vial (spun barrier tube).	
0513	HIVAGEN™	For pre-screened repeatedly reactive specimens.	Negative. (Enzyme Linked Immunosorbent Assay)
0514	WESTERN BLOT ASSAY	For pre-screened repeatedly reactive specimens.	Negative. (Western Blot)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0515	HIV-1 ANTIBODIES SCREEN BY EIA	2 mL Serum - Plastic vial (spun barrier tube). Repeatedly reactive specimens are automatically confirmed at additional charge by HIVAGEN™.	Non-reactive. (Enzyme Linked Immunosorbent Assay)
0516		Reflexive Confirmation by HIVAGEN™. Reflexive Confirmation by Western Blot (by client request)	
	HIV-1 ANTIGEN AND ANTIBODIES PANEL	See Panels and Profiles section.	
0517	HIV-1 P24 ANTIGEN	2 mL Serum - Plastic vial (spun barrier tube).	None detected. (Enzyme Immunoassay)
0518	HOMOVANILLIC ACID (HVA) URINE	10 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 25 mL 6N HCl* to collection container at start of collection. Record total volume on both the specimen container and the test request form. *Prepare by diluting concentrated HCl with an equal volume of water.	0-10 mg/24 hrs. (High Pressure Liquid Chromatography)
	HTLV-I ANTIBODIES	See Human T Lymphocyte Virus-I Antibodies.	
	HUMAN GROWTH HORMONE	See HGH.	
	HUMAN GROWTH HORMONE SERIES	See Panels and Profiles section.	
	HUMAN IMMUNODEFICIENCY VIRUS-1	See HIV-1.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	HUMAN PAPILLOMAVIRUS PANEL	See Panels and Profiles Section.	
3114	HUMAN PAPILLOMAVIRUS SCREEN (Screen for HPV types 6/11/16/18/31/33/35)	Cervical swab or frozen biopsies in HPV collection kit. Carefully follow instructions on the specimen collection kit. Other collection kits are not acceptable.	DNA Hybridization
	HUMAN PAPILLOMAVIRUS TYPING (Test for HPV types 6/11, 16/18, 31/33/35) (For Research Use Only)	Cervical swab or frozen biopsies in HPV collection kit. Carefully follow instructions on the specimen collection kit. Other collection kits are not acceptable.	DNA Hybridization
	HUMAN T-CELL LEUKEMIA/LYMPHOMA VIRUS I ANTIBODIES	See HIV-1 Antibodies Screen.	
0519	HUMAN T LYMPHOCYTE VIRUS-I ANTIBODIES by EIA	1 mL Serum - Plastic vial (spun barrier tube).	Non-reactive. (Enzyme Immunoassay)
0520	by WBA	1 mL Serum - Plastic vial (spun barrier tube). Plasma is also acceptable.	Negative. (Western Blot Assay)
	HVA	See Homovanillic Acid.	
0521	HYDROCARBONS (and Oxygenated Volatiles)	4 mL Fluoridated and Oxalated Whole Blood (gray top tube) - Plastic container.	See laboratory report. (Gas Chromatography)
0522	HYDROMORPHONE	10 mL Urine/Gastric Fluid - Plastic container. See also Opiates.	None detected. (Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0523	HYDROXYCORTICO- STEROIDS, 17- (Includes Creatinine)	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 1 gram boric acid to container at start of collection. Record total volume on both the specimen container and the test request form.	<u>mg/24 hrs</u> Male: 3-15 Female: 2-12 (Spectrophotometry)
0524	HYDROXYINDOLEACETIC ACID, 5- (HIAA, Serotonin Metabolite)	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 30 mL 6N HCl* to container at start of collection. Record total volume on both specimen container and the test request form. Dietary and Drug Restrictions: Avoid bananas, avocados, plums, eggplant, tomatoes, plantain, pineapples, walnuts, acetaminophen, salicylates, phenacetin, cough syrup containing glyceryl guaiacolate, mephenesin, methocarbamol, imipramine, isoniazid, MAO inhibitors, methenamine, methyldopa and phenothiazines for a 48-hour period or more prior to and during the collection. *Prepare by diluting concentrated HCl with an equal volume of water.	<9.0 mg/24 hrs. (High Pressure Liquid Chromatography or Immunoassay)
0525	HYDROXYPROGESTERONE, 17-ALPHA-	2 mL Serum - Plastic vial (spun barrier tube). Morning collection preferred.	<u>Male</u> Adult: 30-220 Prepubertal: <110 <u>Female</u> Follicular: <80 Luteal: 30-290 Postmenopausal: <50 Prepubertal: <200 Newborn 1-8 days: <150 Child 1-12 months: <220 (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0526	HYDROXYPROLINE FREE	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Refrigerate during collection. Acidify total collection to pH <2 by adding 10 mL concentrated HCl per liter of urine. Record total volume on both the specimen container and the test request form.	<2 mg/24 hrs. (Spectrophotometry)
0527	FREE AND TOTAL	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Refrigerate during collection. Acidify total collection to pH <2 by adding 10 mL concentrated HCl per liter of urine. Record total volume on both the specimen container and test request form.	Free: <2mg/24 hrs Total: 25-77 mg/24 hrs. (Spectrophotometry)
0528	TOTAL	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Refrigerate during collection. Acidify total collection to pH <2 by adding 10 mL concentrated HCl per liter of urine. Record total volume on both the specimen container and test request form.	25-77 mg/24 hrs. (Spectrophotometry)
	HYDROXYTRYPTAMINE, 5-	See Serotonin.	
	HYPERSENSITIVITY PNEUMONITIS PANEL	See Panels and Profiles section.	
	HYPERTENSION PROFILES	See Panels and Profiles section.	
	HYPERTHYROID PANEL	See Thyroid Panel, Hyper in Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	HYPOTHYROID PANEL	See Thyroid Panel, Hypo in Panels and Profiles section.	
0529	IBUPROFEN	2 mL Serum - Plastic vial (spun barrier tube). Plasma also acceptable. Do not collect in serum separator tube.	10-50 mcg/mL. (Gas Chromatography)
	IgA	See Immunoglobulin A.	
	IgD	See Immunoglobulin D.	
	IgE	See Immunoglobulin E.	
	IgG	See Immunoglobulin G.	
	IgG CSF INDEX	See IgG Synthesis & Index.	
	IgG SUBCLASSES PANEL	See Immunoglobulin G Subclasses Panel.	
	IgG SYNTHESIS & INDEX	See Cerebrospinal Fluid IgG Synthesis & Index.	
	IgM	See Immunoglobulin M.	
	IMAVATE®	See Imipramine.	
0530	IMIPRAMINE (TOFRANIL®) (Includes Desipramine Metabolite)	3 mL Serum - Plastic vial (spun barrier tube). Do not collect in serum separator tube.	<u>Total</u> <u>mcg/L</u> Therapeutic: 150-300 Potentially Toxic: >500 (Immunoassay/High Pressure Liquid Chromatography)
	IMMUNE ASSESSMENT PROFILES	See Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	IMMUNE COMPLEX C1q BINDING ASSAY	See C1q Immune Complex Detection.	
	IMMUNE COMPLEX PANEL	See Panels and Profiles section.	
	IMMUNE COMPLEX RAJI CELL ASSAY		
0531	CSF	1 mL Frozen CSF - Plastic vial, or	<u>mcg AHG mEq/mL</u> Normal: <50
0532	SERUM	2 mL Frozen Serum - Plastic vial (spun barrier tube). Specify specimen type.	Borderline: 50-100 Abnormal: >100 AHG = Aggregated human gamma globulin. (Radioimmunoassay)
	IMMUNOCOMPETENCY PANEL	Clinical Utility: This panel quantitates the five major lymphocyte populations and is helpful in the initial evaluation and diagnosis of patients with primary and secondary immunodeficiency states. WBC total and absolute lymphocytes % CD3+, 4+, 8+, (3-16+56+), 19+ lymphocytes Absolute CD3+, CD4+, CD8+, CD3-16+56+, CD19+ lymphocytes Helper/Suppressor ratio	
	IMMUNOELECTROPHORESIS/ IMMUNOFIXATION		
0533	CSF	5 mL CSF - Plastic vial.	No significant protein abnormalities or monoclonal proteins in the specimen. (Electrophoresis)
0534	SERUM	2 mL Serum - Plastic vial (spun barrier tube).	No significant protein abnormalities or monoclonal proteins in the specimen. (Electrophoresis)
0535	URINE	50 mL Random Urine - Plastic container.	No significant protein abnormalities or monoclonal proteins in the specimen. (Electrophoresis)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																
	IMMUNOELECTRO-PHORESIS/ IMMUNOFIXATION EVALUATION	See Panels and Profiles section.																	
0536	IMMUNOFIXATION	1 mL Serum - Plastic vial (spun barrier tube).	Immunofixation demonstrates no significant protein abnormalities or monoclonal proteins in the specimen.(Immunofixation)																
0537	IMMUNOGLOBULIN A (IgA)	2 mL Serum - Plastic vial (spun barrier tube). Record patient's age on the test request form.	69-382 mg/dL (Nephelometry)																
0539	IMMUNOGLOBULIN D (IgD)	1 mL Serum - Plastic vial (1 spun barrier tube).	0-14 mg/dL. (Radial Immunodiffusion)																
0540	IMMUNOGLOBULIN E (IgE)	1 mL Serum - Plastic vial (1 spun barrier tube). State patient's age on test request form.	<table> <thead> <tr> <th><u>Age</u></th> <th><u>U/mL</u></th> </tr> </thead> <tbody> <tr> <td><1 yr</td> <td><6</td> </tr> <tr> <td>1-2 yrs</td> <td><12</td> </tr> <tr> <td>3 yrs</td> <td><24</td> </tr> <tr> <td>4-5 yrs</td> <td><50</td> </tr> <tr> <td>6 yrs</td> <td><70</td> </tr> <tr> <td>7-14 yrs</td> <td><120</td> </tr> <tr> <td>Adults</td> <td><180</td> </tr> </tbody> </table> (Radioimmunoassay)	<u>Age</u>	<u>U/mL</u>	<1 yr	<6	1-2 yrs	<12	3 yrs	<24	4-5 yrs	<50	6 yrs	<70	7-14 yrs	<120	Adults	<180
<u>Age</u>	<u>U/mL</u>																		
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3 yrs	<24																		
4-5 yrs	<50																		
6 yrs	<70																		
7-14 yrs	<120																		
Adults	<180																		
0541	IMMUNOGLOBULIN G (IgG) CSF	1 mL CSF - Plastic vial (1 spun barrier tube).	0.5-6.1 mg/dL (Nephelometry)																
0542	SERUM	2 mL Serum - Plastic vial (1 spun barrier tube). Record patient's age and sex on the test request form.	Adult: 723-1685 mg/dL (Nephelometry)																
0543	PLATELET ASSOCIATED	Contact laboratory for special instructions prior to drawing sample.	<table> <tbody> <tr> <td>Negative:</td> <td><8.5 MFV</td> </tr> <tr> <td>Borderline:</td> <td>8.5-10.2 MFV</td> </tr> <tr> <td>Positive:</td> <td>>10.2 MFV</td> </tr> </tbody> </table> (MFV = mean fluorescent value) (Radioimmunoassay)	Negative:	<8.5 MFV	Borderline:	8.5-10.2 MFV	Positive:	>10.2 MFV										
Negative:	<8.5 MFV																		
Borderline:	8.5-10.2 MFV																		
Positive:	>10.2 MFV																		
0544	IMMUNOGLOBULIN G SUBCLASSES PANEL (Includes Subclasses 1-4)	1 mL Frozen Serum - Plastic vial (1 spun barrier tube).	See below. (Radial Immunodiffusion)																

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
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TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0545	SUBCLASS 1	Reference Range <u>Total IgG</u> (mg/dL)	IgG Subclass 1
0546	SUBCLASS 2		IgG Subclass 2
0547	SUBCLASS 3		IgG Subclass 3
0548	SUBCLASS 4		IgG Subclass 4
			(mg/dL)
		Adult	640-1350
		<u>Children</u>	
		≤8 mo.	170-910
		9 mo-2 yrs.	220-1210
		3-4 yrs.	440-1240
		5-6 yrs.	460-1280
		7-8 yrs.	610-1280
		9-14 yrs.	610-1570

0549 **IMMUNOGLOBULIN M (IgM)** 1 mL Serum - Plastic vial (1 spun barrier tube). Record patient's age on test request form. Adult: 63-277 mg/dL (Nephelometry)

0550 **IMMUNOGLOBULINS (Includes IgA, IgG, and IgM)** 1 mL Serum - Plastic vial (1 spun barrier tube). Record patient's age on request form. See individual test listings. (Nephelometry)

IMMUNOPHENOTYPING STUDIES

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	IMPOTENCE PANEL	See Panels and Profiles section.	
0551	INDERAL® (PROPRANOLOL)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	50-100 mcg/L for beta blockage. Effective therapeutic range depends on clinical condition. (High Pressure Liquid Chromatography)
	INDIA INK WET MOUNT	See <u>Cryptococcus</u> Antigen.	
	INDOMETHACIN, SERUM OR PLASMA	2 mL Serum or Plasma - Plastic vial (spun barrier tube).	Therapeutic Range: 1-6 mcg/mL Peak level following a single 800 mg dose: 2-3 mcg/mL (Liquid Chromatography)
0552	INFECTIOUS MONONUCLEOSIS	See Heterophile, Mono Screen. See also Epstein-Barr Virus Antibodies Screen.	
0553	INFLUENZA TYPE A VIRUS ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggests an infection or immunization at some undetermined time in the past. (Complement Fixation)
	INFLUENZA TYPE A VIRUS ISOLATION	See Culture, Virus.	
0554	INFLUENZA TYPE B VIRUS ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggests an infection or immunization at some undetermined time in the past. (Complete Fixation)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	INFLUENZA TYPE B VIRUS ISOLATION	See Culture, Virus.	
0555	INFLUENZA TYPE C VIRUS ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection. Titer: ≥1:8 Antibody detected. Suggests an infection at some undetermined time in the past. (Complete Fixation)
	INFLUENZA TYPES A & B VIRUS ANTIBODIES	See Panels and Profiles section.	
3116	INFLUENZA VIRUS ANTIGEN BY DFA	Nasopharyngeal (NP), Aspirate or NP Swab.	Direct Fluorescent Antibody Staining
0556	INSULIN	1 mL Frozen Serum - Plastic vial (1 spun barrier tube). Fasting specimen required.	Fasting: 5-25 mcU/mL (Radioimmunoassay)
0557	INSULIN ANTIBODIES (Includes Bovine and Porcine)	2 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Radiometric)
	INSULIN BINDING	See Insulin Antibodies.	
0558	INTERLEUKIN 2 (IL-2), SERUM	2 mL Serum - Plastic vial (1 spun barrier tube). Separate and freeze serum immediately in a plastic vial (spun barrier tube) place in specimen envelope with "Frozen Specimen" label applied and transport frozen. Increased production of IL-2 is seen in AIDS, Multiple Sclerosis, Rheumatoid Arthritis, SLE, Type I Diabetes Mellitus and during transplant rejection. Lymphocytes from patients with primary immune deficiencies and those with drug-induced immunosuppression may not be capable of producing IL-2 in vitro.	See laboratory report. (Immunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	INTRAUTERINE DEVICE CULTURE	See Culture, Pelvic Organs.	
0559	INTRINSIC FACTOR ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube). Do not collect serum sample within 48 hours following an injection of vitamin B12.	None detected. (Immunoassay)
0560	IODINE, TOTAL, URINE	20 mL Random Urine - Plastic container.	2-48 mcg/dL. Function of diet and Iodine-containing medication. (Colorimetry)
	IONIZED CALCIUM	See Calcium, Ionized.	
0561	IRON, TOTAL Iron Binding Capacity (TIBC) & Percent Saturation	4 mL Serum - Plastic vial (1 spun barrier tube). Avoid hemolysis.	Iron, Total: Male: 55-200 mcg/dL Female: 35-200 mcg/dL Iron Binding Capacity: 250-425 mcg/dL % of Saturation: 20-55% (Spectrophotometry)
0562	LIVER TISSUE	12 mg Frozen Liver Tissue - Plastic container. Obtain wet weight before freezing.	Wet tissue weight: 50-950 mcg/g Dry tissue weight: 340-1360 mcg/g (Spectrophotometry)
0563	SERUM	4 mL Serum - Plastic vial (1 spun barrier tube). Avoid hemolysis.	Male: 55-200 mcg/dL Female: 35-200 mcg/dL (Spectrophotometry)
0564	URINE	50 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection.	<300 mcg/24 hrs (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	ISLET CELL ANTIBODIES	See Pancreatic Islet Cell Antibodies.	
0565	ISONIAZID, SERUM	4 mL Serum - Plastic vial (1 spun barrier tube). Separate and freeze serum immediately. Wrap in foil to protect from light; place in specimen envelope with "Frozen Specimen" label applied and transport frozen. Fast acetylators: 45-80 minutes. Slow acetylators: 140-200 minutes.	Usual Therapeutic Range: Up to 4 mcg/mL. Depends on dosage, frequency of administration, and time of sampling. Toxic Range: >20 mcg/mL (Spectrophotometry)
	ISOPROPANOL	See Alcohol, Isopropyl.	
	ISOPTIN®	See Verapamil.	
0.00	<u>ISOSPORA BELLI</u>, STOOL	Stool in 10% formation (use formalin vial from Parasitology kit).	Negative for <u>Isospora belli</u> . (Kinyoun stain)
	JANIMINE®	See Imipramine.	
	JO-1 ANTIBODY	See Ant-JO-1 Antibody.	
	KANAMYCIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	KANTREX®	See Antibiotic Microbial Assay.	
0567	KETOGENIC STEROIDS, 17-, TOTAL	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 1 gram boric acid to container at start of collection. Record total volume on both the specimen container and the test request form.	<u>mg/24 hrs</u> Male: 5-23 Female: 3-15 (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0568	KETOGENIC STEROIDS, 17-, TOTAL	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 1 gram boric acid to container at start of collection. Record total volume on both the specimen container and the test request form.	<u>mg/24 hrs</u> Male: 9-22 Female: 5-15 (Spectrophotometry)
	KLONOPIN®	See Clonazepam.	
	KOH PREPARATION	See Potassium Hydroxide Wet Mount.	
0569	LACTATE DEHYDROGENASE (LD) ISOENZYME PANEL	2 mL Serum - Plastic vial (1 spun barrier tube). Avoid hemolysis. Do not freeze or refrigerate.	LD, Total 0-250 U/L LD-1 20-36% LD-2 32-50% LD-3 15-25% LD-4 2-10% LD-5 3-13% (Electrophoresis and Spectrophotometry)
0570	TOTAL	2 mL Serum - Plastic vial (1 spun barrier tube).	0-250 U/L (Spectrophotometry)
	LACTIC ACID	See Blood Lactate.	
0571	LACTOSE	5 mL Fluoridated and Oxalated Plasma (gray top tube) - Plastic vial. Patient should fast for 10-16 hours prior to test.	Fasting: <u>Age</u> <u>mg/dL</u> 12-50 years 70-115 >50 years 80-125 (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
LACTOSE TOLERANCE TEST			
(MULTIPLE SPECIMENS)			
0572	2 SPECIMENS	5 mL Fluoridated and Oxalated Whole Blood (gray top tube). Patient should fast for 10-16 hours prior to test. Label each tube appropriately (1 hr, 2 hrs, etc.) and submit all specimens in the series at the same time. Indicate the total number of specimens submitted on the test request form.	Fasting: <u>Age</u> <u>mg/dL</u> 12-50 years 70-115 >50 years 80-125 Also see laboratory report. (Spectrophotometry)
0573	3 SPECIMENS		
0574	4 SPECIMENS		
0575	5 SPECIMENS		
0576	6 SPECIMENS		
0577	7 SPECIMENS		
0578	8 SPECIMENS		
0579	9 SPECIMENS		
0580	10 SPECIMENS		
0581	11 SPECIMENS		
0582	12 SPECIMENS		
	LANOXIN®		
	LAP	See Leucine Aminopeptidase.	
	LCM	See Lymphocytic Choriomeningitis Virus Antibodies.	
	LD	See Lactate Dehydrogenase.	
	LDH	See Lactate Dehydrogenase.	
	LD ISOENZYME PANEL	See Lactate Dehydrogenase Isoenzyme Panel.	
	LDL	See C. A. R. E. Panel #2 in Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0206	LEAD BLOOD	3 mL Heparinized Whole Blood - brown top tube or royal blue trace metal tube (with heparin). Mix well to avoid clot formation. NOTE: Do not use gray, green, or lavender top tubes.	< 25 mcg/dL Reference range applies to non-exposed individuals. Acceptable blood lead levels vary with conditions of exposure as defined by current federal regulations. Contact laboratory for reference range for occupationally exposed individuals and information on pediatric submissions. (Atomic Absorption)
0207	URINE	20 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Collect in a lead-free container with 20 mL 6N HCl*. Record total volume on the specimen container and the test request form. *Prepare by diluting concentrated HCl with an equal volume of water.	< 80 mcg/L (Atomic Absorption/Anodic Stripping)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
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0583 **LECITHIN/SPHINGOMYELIN RATIO (L/S RATIO)** (Includes phosphatidylglycerol)

- 10 mL Frozen Amniotic Fluid - Plastic vial (3 spun barrier tubes).
- This is the minimum specimen requirement necessary to perform this assay.
- Refrigerate sample immediately after collection.
- Separate debris and cellular elements as soon as possible after collection by centrifugation at 700 x g.
- Transfer supernatant to a plastic vial (spun barrier tube), freeze immediately and keep frozen until analysis.
- If sample is kept at 4°C or room temperature, phosphodiesterase activity in the amniotic fluid will destroy the lecithin, resulting in a falsely depressed L/S ratio. Stable 14 days frozen.

See below:
(Thin-Layer Chromatography)

Reference Range

<u>Interpretation</u>	<u>L/S Ratio</u>
Immature	<1.0
Premature	1.0-1.5
Transitional	1.5-1.9
Mature (Caution)	2.0-2.5
Mature	>2.5

<u>Phosphatidyl glycerol</u>	<u>Weeks Gestation</u>
None detected	26-30
None detected	30-34
None detected	35-36
None detected	36-37
None detected	37-40

An L/S ratio of 2.0-2.5 together with the presence of phosphatidyl glycerol (PG) is generally indicative of mature fetal lung development. The designation "Mature (Caution)" refers to patients other than those with diabetes. Phospholipid data in diabetic pregnancies do not necessarily follow the above classification. For additional interpretive information please contact the laboratory.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0584 0585	LEGIONELLA ANTIBODIES EVALUATION, COMPREHENSIVE (SINGLE) (ACUTE & CONVALESCENT) (Includes <u>Legionella pneumophila</u> (1-6), <u>Legionella bozemannii</u> , <u>Legionella dumoffii</u> , <u>Legionella gromanii</u> , <u>Legionella jordanis</u> , <u>Legionella longbeachae I</u> , <u>Legionella longbeachae II</u> , <u>Legionella micdadei</u>)	2 mL Serum - Plastic vial (1 spun barrier tube).	Seroconversion is confirmed by a 4-fold rise in titer in paired sera collected 1-12 days apart. A single titer of >1:128 can be used to define possible cases if paired sera are not available. (Indirect Immunofluorescence)
	LEGIONELLA BY DNA PROBE	2 mL Lower Respiratory Tract Specimen Store at refrigerator temperature (4°C).	
0586	LEPTOSPIRA ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected (<1:50) (Indirect Hemagglutination)
0587	LEUCINE AMINOPEPTIDASE (LAP)	1 mL Serum - Plastic vial (1 spun barrier tube).	8-22 mIU/mL at 25°C (Spectrophotometry)
	LEUCINE ARYLAMIDASE	See Leucine Aminopeptidase.	
	LEUKEMIA AND LYMPHOMA EVALUATION, LYMPHOCYTIC	Clinical Utility: This lymphocytic evaluation is used to differentiate lymphocytic leukemias from lymphocytosis by identifying clonality. WBC total and absolute lymphocytes % and absolute CD2+ lymphocytes % and absolute CD3+DR+ lymphocytes % and absolute CD4+, CD8+ lymphocytes % and absolute DR+, kappa+, lambda+ lymphocytes % and absolute CD10+, CD5+19+, CD19+, CD3-16+56+ lymphocytes Helper/Suppressor ratio	
0588	LEUKOCYTE ALKALINE PHOSPHATASE STAIN	Six Unfixed Air-dried Fresh Blood Smears. Submit same day as prepared. Do not use EDTA Blood (lavender top tube)	Cell Score: 11-95 (Cytochemistry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	LEUKOCYTES, FECAL	Submit minimum of 1 gram of feces in PVA preservative.	
	LGV	See Chlamydia trachomatis IgG Antibody.	
	LH	See Luteinizing Hormone.	
	LH/FSH PANEL	See FSH and LH Evaluation in Panels and Profiles section.	
	LIBRIUM®	See Chlordiazepoxide.	
0589	LIDOCAINE (XYLOCAINE®) SERUM	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 1.5-5.0 mg/L Potentially Toxic: >5 mg/L (Immunoassay)
0590	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
	LIGHT CHAIN PROTEIN	See Immunoelectrophoresis/ Immunofixation.	
0591	LIPASE SERUM	1 mL Serum - Plastic vial (1 spun barrier tube). Lipemic specimens are not acceptable.	≤208 U/L @ 37°C (Turbidimetry)
0592	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Record total volume on both the specimen container and the test request form.	0.1-0.7 U/mL (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0593	LIPID ASSOCIATED SIALIC ACID (LASA)	1 mL Frozen Serum or Plasma - Plastic vial (1 spun barrier tube).	109-262 mcg/mL (Spectrophotometry)
	LIPID PANEL	See Panels and Profiles section.	
	LIPIDS BY MICROSCOPY, FECES (FECAL FAT)	Submit minimum of 2 grams of feces in a small, leak-proof plastic container.	
0594	LIPIDS, TOTAL FECES (FECAL FAT)	20 grams Feces from a well-mixed, 72-, 48-, or 24-hour collection - Plastic container. Record total specimen weight and total collection time on the test request form. Do not submit entire collection.	<7 g/24 hrs On Normal Diet. (Gravimetry)
0595	SPLIT (SPLIT FAT)	20 grams Frozen Feces from a well-mixed, 72-, 48-, or 24-hour collection - Plastic container. Record total specimen weight and total collection time on the test request form. Do not submit entire collection.	>40% of total lipids. (Gravimetry)
	LIPOPROTEIN, VERY LOW DENSITY	See Cholesterol, Very Low Density.	
0596	LITHIUM SERUM	2 mL Serum - Plastic vial (1 spun barrier tube). Early morning specimen should be drawn 12 hours after the last dose.	Therapeutic: 0.50-1.30 mEq/L Potentially Toxic: >1.5 mEq/L (Atomic Absorption/Flame Emission)
0597	URINE	5 mL Urine - Screw-cap tube. No preservative.	None detected. (Atomic Absorption/Flame Emission/Ion Selective Electrode)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	LIVER FUNCTION PANELS	See Panels and Profiles section.	
0598	LIVER/KIDNEY MICROSOMAL ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Indirect Immunofluorescence)
	LONG-ACTING THYROID STIMULATING HORMONE	See Thyroid Stimulating Immunoglobulin.	
0599	LORAZEPAM (ATIVAN®) SERUM	2 mL Serum - Plastic vial (1 spun barrier tube). Plasma is also acceptable.	Therapeutic: 50-240 ng/mL (Gas Chromatography)
0600	URINE	5 mL Urine - Plastic vial (1 spun barrier tube).	No reference range established. (Gas Chromatography)
0601	LOXAPINE (LOXITANE®) (Includes Amoxapine and both metabolites)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Not established. (High Pressure Liquid Chromatography)
	LOXITANE®	See Loxapine.	
	L/S RATIO	See Lecithin/Sphingomyelin Ratio.	
	LSD	See Lysergic Acid Diethylamide.	
	LUDIOMIL®	See Maprotiline.	
	LUFYLLIN®	See Dyphylline.	
	LUMINAL®	See Phenobarbital.	
	LUPUS ERYTHEMATOSUS PANEL	See Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0602	LUPUS-TYPE ANTICOAGULANT	2 mL Frozen Citrated Plasma (blue top tube) - Plastic vial (1 spun barrier tube). Separate plasma and freeze at -70°C.	No evidence of lupus-type anticoagulant. (Coagulation)
0603	LUTEINIZING HORMONE (LH) SERUM	1 mL Serum -Plastic vial (1 spun barrier tube). State patient's age and sex on test request form.	<p style="text-align: right;"><u>U/L</u></p> <p>Male: 1. 0-8.4</p> <p><u>Female</u></p> <p>Follicular: 1.6-9.3</p> <p>Ovulatory: 13.8-71.8</p> <p>Luteal: 0.5-12.8</p> <p>Postmenopausal: 15.0-64.0</p> <p>Child (1-8 yrs): <0.15</p> <p>(Time-Resolved Fluoroimmunoassay)</p>
0604	LYME DISEASE ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	See laboratory report. (Enzyme Immunoassay)
0605	LYME DISEASE ANTIBODIES BY WBA	1 mL Serum - Plastic vial (1 spun barrier tube).	Non-reactive. (Western Blot Assay)
	LYMPHADENOPATHY PANEL	See Panels and Profiles section.	
	LYMPHOCYTE MARKERS	See Flow Cytometry section.	
	LYMPHOCYTE MARKER STUDIES, TISSUE IMMUNOHISTOCHEMISTRY	See Tissue Immunohistochemistry in the Panels and Profiles section.	
0606	LYMPHOCYTE STIMULATION BY MULTIPLE MITOGENS	Contact laboratory for special specimen collection kit.	See laboratory report.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0607	LYMPHOCYTIC CHORIOMENINGITIS VIRUS ANTIBODIES (LCM)	1 mL Serum - Plastic vial (1 spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggests an infection or immunization at some undetermined time in the past. (Complement Fixation)
	LYMPHOCYTIC LEUKEMIA AND LYMPHOMA EVALUATIONS	See Flow Cytometry section.	
	LYMPHOGRANULOMA VENEREUM ANTIBODIES	See <u>Chlamydia trachomatis</u> IgG Antibody.	
0608	LYSERGIC ACID DIETHYLAMIDE (LSD)	10 mL Urine - Plastic container. Protect from light by wrapping in foil.	None detected. (Immunoassay)
0609	LYSOZYME SERUM	1 mL Frozen Serum - Plastic vial (1 spun barrier tube).	2.8-8.0 mcg/mL (Turbidimetry)
0610	URINE	1 mL Frozen Random Urine - Plastic vial (1 spun barrier tube).	<2 mcg/mL (Turbidimetry)
	MACROAMYLASE	See Amylase Isoenzymes.	
	MACROCYTIC ANEMIA PROFILE	See Panels and Profiles section.	
	MACULOPAPULAR RASH EVALUATIONS	See Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0611	MAGNESIUM RBC	3 mL Heparinized Red Blood Cells - Plastic vial (1 spun barrier tube). Draw blood into a royal blue top tube. Separate plasma and submit red cells. Do not submit whole blood. Protect from light by wrapping in foil.	3.0-4.8 mEq/L (Atomic Absorption)
0612	SERUM	2 mL Serum (royal blue top trace metal tube) - Plastic vial (1 spun barrier tube).	1.70-2.50 mg/dL (Atomic Absorption/ Spectrophotometry)
0613	URINE	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 25 mL 6N HCl* to container at start of collection. Record total volume on both the specimen container and the test request form. The pH of both the collection and the 25 mL aliquot must be ≤ 3.0 .	50-200 mg/24 hrs. (Atomic Absorption)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
	MALARIA SMEAR	See Blood Parasites.	
0614	MANGANESE	10 mL Heparinized Whole Blood (green top Vacutainer™ Tube). Do not transfer into another container. Do not use royal blue top tube.	4-14 mcg/L (Atomic Absorption)
0615	MAPROTILINE (LUDIOMIL®)	3 mL Frozen Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 180-400 mcg/L Potentially Toxic: >100 mcg/L (Gas Chromatography)
0616	MARIJUANA (Active Component) (TETRAHYDROCANNABINOL by GC/MS, Delta-9-)	5 mL Serum - Plastic vial. Do not collect in serum separator tube.	None detected. (Gas Chromatography/Mass Spectrometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	MARIJUANA METABOLITES BY GC/MS	See Cannabinoids.	
	MATURATION INDEX SMEAR (Cytologic Screen, GYN Smear with Quantitative Maturation Index (MI))	Obtain a specimen from the ectocervix and endocervix on one slide. Immediately fix smear with spray fixative or 95% ethyl alcohol. On the second slide place scraped material from the middle third of the lateral vaginal wall. Fix immediately with spray fixative. Patient's name must be written <u>in pencil</u> on frosted end of both slides, and "MI" must be written on the vaginal slide. Submit slides in slide container. Provide all patient information on the Cytology Request Form.	
	MBC	See Susceptibility by MBC.	
	MEASLES VIRUS ANTIBODIES (RUBEOLA)	See Rubeola Virus IgG Antibody.	
	MEBARAL®	See Mephobarbital.	
	MEGALOBLASTIC ANEMIA PANEL	See Panels and Profiles section.	
	MELLARIL®	See Thioridazine.	
	MEPERIDINE	See Demerol®.	
0617	MEPHENYTOIN (MESANTOIN®) (Includes Normephenytoin Metabolite)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 15-40 mg/L Potentially Toxic: >40 mg/L (Gas Chromatography)
0618	MEPHOBARBITAL (MEBARAL) (as Phenobarbital)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 15-40 mg/L Potentially Toxic: >40 mg/L (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0619	Meprobamate (Miltown®) SERUM	4 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 5.0-30.0 mg/L Potentially Toxic: >50.0 mg/L (Gas Chromatography)
0620	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
0621	MERCURY BLOOD	3 mL Heparinized Whole Blood - Royal blue top trace metal tube.	Normal: <1.0 mcg/dL Potentially Toxic: >5.0 mcg/dL (Hydride Atomic Absorption)
0622	TISSUE	5 grams Tissue.	Normally up to 3 ppm in kidney; <2 ppm in other soft tissues. (Cold Vapor Atomic Absorption)
0623	URINE	50 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 20 mL 6N HCl* to collection container prior to start of collection. Record total volume on both the specimen container and the test request form. *Prepare by diluting concentrated HCl with an equal volume of water.	<u>mcg/L</u> Acceptable range for non-exposed subject: <20 Acceptable range for industrial exposure: <150 Potentially Toxic: >150 (Atomic Absorption)
	MESANTOIN	See Mephenytoin.	
0624	Mesoridazine (Serentil®)	2 mL Serum - Plastic vial. Do not collect in serum separator tube. Plasma is also acceptable.	Therapeutic: 150-1000 ng/mL (High Pressure Liquid Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0625	METANEPHRINES FRACTIONATED	<p>25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 25 mL 6N HCl* to container at start of collection. Record total volume on both the specimen container and the test request form. Final pH should be <4.0 If necessary, adjust pH to this level with 6N HCl*.</p> <p>Dietary Restrictions: No caffeine before or during collection. Phenothiazines, monamine oxidase inhibitors and many other drugs including chlorpromazine and imipramine should be discontinued prior to beginning collection. X-ray contrast media may interfere.</p> <p><small>*Prepare by diluting concentrated HCl with an equal volume of water.</small></p>	<p style="text-align: right;"><u>mg/24 hrs</u></p> <p>Normetanephrine: <0.9 Metanephrine: <0.4 (High Pressure Liquid Chromatography)</p>
626	TOTAL	<p>25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 30 mL 6N HCl* to container at the start of collection. Record total volume on both the specimen container and the test request form. Final pH should be <4.0 If necessary, adjust pH to this level with 6N HCl*.</p> <p>Dietary Restrictions: No caffeine before or during collection. Phenothiazines, monamine oxidase inhibitors and many other drugs including chlorpromazine and imipramine should be discontinued prior to beginning collection. X-ray contrast media may interfere.</p> <p><small>*Prepare by diluting concentrated HCl with an equal volume of water.</small></p>	<p><0.9 mg/24 hrs. (Spectrophotometry)</p>

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0627	METHADONE (DOLOPHINE®) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Not established. (Gas Chromatography)
0628	URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0629	QUANTITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0630	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
	METHAMPHETAMINE	See Amphetamines.	
	METHANOL	See Alcohol, Methyl.	
0631	METHAQUALONE (QUAALUDE®) SERUM	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 2.0-5.0 mg/L Potentially Toxic: >8.0 mg/L (Gas Chromatography)
0632	URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0633	QUANTITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0634	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
	METHARBITAL	See Gemonil®.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0635	METHEMALBUMIN	3 mL Serum - Plastic vial (1 spun barrier tube) Remove serum from clot immediately. Avoid hemolysis.	None detected. (Spectrophotometry)
0636	METHEMOGLOBIN	EDTA Whole Blood - 1 full lavender top tube. Pack in wet ice or slush (not dry ice). Do not freeze specimen. Contact laboratory for pickup before obtaining specimen, since specimens are stable 4 hours. Record drawing time of specimen.	<u>% of Total Hemoglobin</u> Normal: <2.0 Potentially Toxic: >20.0 (Spectrophotometry)
	METHICILLIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
0637	METHOTREXATE CSF	1 mL Frozen CSF - Plastic container.	Not established. (Immunoassay)
0638	SERUM	1 mL Frozen Serum - Plastic vial (1 spun barrier tube). Include dose time and time after dose that specimen is obtained on test request form.	During high dose therapy serum concentration may reach 1000 mmole/L. After infusion, serum levels should be below the following concentrations, at the indicated times: 5.0 millimole/L at 24 hrs. 1.0 millimole/L at 48 hrs. 0.1 millimole/L at 72 hrs. (Immunoassay FPIA/EIA)
	METHSUXIMIDE	See Celontin®.	
	METHYL ALCOHOL	See Alcohol, Methyl.	
0639	METHYLMALONIC ACID	2 mL Frozen Serum - Plastic vial (1 spun barrier tube). Plasma is also acceptable.	73-271 nmoles/L (Gas Chromatography/Mass Spectroscopy)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0640	METHYLMALONIC ACID AND HOMOCYSTEINE	2 mL Frozen Serum - Plastic vial (1 spun barrier tube).	Methylmalonic Acid: 73-271 nmoles/L Homocysteine: 5.4-16.2 mcmoles/L (Gas Chromatography/Mass Spectroscopy)
0641	METHYLPHENIDATE (RITALIN®) SERUM	2 mL Serum - Plastic vial. Do not collect in serum separator tube. Plasma is also acceptable.	Therapeutic: 5-20 ng/mL (Gas Chromatography/Mass Spectroscopy)
0642	URINE	5 mL Urine - Plastic vial (1 spun barrier tube).	No reference range established. (Gas Chromatography)
0643	MEXILETINE	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 0.7-2.0 mg/L Potentially Toxic: >2.0 mg/L (High Pressure Liquid Chromatography)
	MEXITIL®	See Mexiletine.	
	MEZLOCILLIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	MHA-TP	See <u>Treponema pallidum</u> Antibodies by MHA.	
0644	MHPG (3-METHOXY-4-HYDROXY-PHENYL-ETHYLENEGLYCOL)	50 mL Frozen Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Refrigerate urine during collection. No preservative. Freeze immediately after collection. Record total volume on both the specimen container and the test request form.	<u>mg/24 hrs.</u> MHPG-SO ₄ : 0.7-2.2 MHPG-GLU: 0.5-2.4 Total: 1.2-4.6 (High Pressure Liquid Chromatography)
	MIC (MINIMAL INHIBITORY CONCENTRATION)	See Susceptibility by MIC.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0645	MICROALBUMIN	2 mL Urine - Screw-cap tube. Aliquot from a well-mixed, 24-hour collection or a timed specimen. Specify time of collection intervals and total volume on both the specimen container and the test request form.	1-15 mcg/minute 2-21 mg/24 hrs (Radioimmunoassay)
	MICROCYTIC ANEMIA PROFILE	See Panels and Profiles section.	
0646	<u>MICROPOLYSPORA RECTIVIRGULA</u> ANTIBODIES	2 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Immunodiffusion)
	MILONTIN®	See Phensuximide.	
	MILTOWN®	See Meprobamate.	
	MINIMAL BACTERICIDAL CONCENTRATION	See Susceptibility by MBC.	
	MINIMAL INHIBITORY CONCENTRATION	See Susceptibility by MIC.	
	MINOCYCLINE MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	MITOCHONDRIAL ANTIBODIES	See Anti-Mitochondrial Antibodies.	
0647	MOBAN (MOLINDONE), SERUM	2 mL Serum - Plastic vial (1 spun barrier tube).	30-70 ng/mL (Gas Chromatography)
	MONILIA CULTURE	See Culture, Fungus.	
	MONO TEST, RAPID	See Heterophile, Mono Screen.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	MONONUCLEOSIS	See Heterophile, Mono Screen.	
	MORPHINE	See Opiates.	
	MOXALACTAM MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	MS PANELS	See Multiple Sclerosis Panels in Panels and Profiles section.	
	MUCIN CLOT	See Synovial Fluid Analysis.	
0648	MUCOPOLYSACCHARIDES, QUALITATIVE, URINE	10 mL Random Urine - Plastic container.	Negative. (Turbidimetry)
	MULTIPLE SCLEROSIS PANEL, BASIC	See Panels and Profiles section.	
	MULTIPLE SCLEROSIS PROFILE, COMPREHENSIVE	See Panels and Profiles section.	
	MUMPS EVALUATION	See Panels and Profiles section.	
0649	MUMPS VIRUS (SOLUBLE ANTIGEN) ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube). Test not suitable for determining immune status. For immune status, order Mumps, Virus IgG Antibody.	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggestive of an infection or immunization at some undetermined time in the past. (Complement Fixation)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0650	MUMPS VIRUS (VIRAL ANTIGEN) ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube). Test not suitable for determining immune status. For immune status order, see Mumps Virus IgG Antibody.	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggestive of an infection or immunization at some undetermined time in the past. (Complement Fixation)
0651	MUMPS VIRUS IgG ANTIBODY (IMMUNE STATUS)	1 mL Serum - Plastic vial (1 spun barrier tube).	See below (EIA) Reference Range: <u>Explanation of EIA value:</u> <0.80 No antibody detected. Suggests absence of prior exposure to mumps. 0.80-0.99 Equivocal result. Suggests a new serum specimen be submitted for testing. 1.00-1.74 Low level of antibody detected. 1.75-3.89 Moderate level of antibody detected. ≥3.90 High level of antibody detected. EIA values of 1.00 or greater suggest prior exposure or vaccination to mumps. Patients with active mumps infection may not seroconvert for up to 4 days after onset of symptoms. Test detects IgG class of antibody.
	MURINE TYPHUS	See Typhus (Murine) IgG Antibody.	
	MUSCLE FIBERS, FECAL	- Submit minimum of 10 grams of feces in a clean plastic container. - Store at 4°C.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0652	MYASTHENIA GRAVIS EVALUATION	2 mL Serum - Plastic vial (1 spun barrier tube). Please indicate if the patient is immunosuppressed.	Acetylcholine Receptor Antibody: <0.5 nmol/L (Radioreceptor) Skeletal Muscle Antibody: None detected. (Indirect Immunofluorescence)
	MYCOBACTERIA CULTURE	See Culture, <u>Mycobacterium</u> .	
	<u>MYCOBACTERIUM IDENTIFICATION</u>	See Microbiology section.	
	<u>MYCOBACTERIUM ISOLATE FOR IDENTIFICATION</u>	See <u>Mycobacterium</u> Identification.	
	<u>MYCOPLASMA CULTURE</u>	See Culture, <u>Mycoplasma</u> .	
	<u>MYCOPLASMA HOMINIS CULTURE</u>	See Culture, <u>Mycoplasma</u> , Genital.	
	<u>MYCOPLASMA PNEUMONIAE BY DNA PROBE</u>	Indicate Source Use a sterile dacron polyester, rayon, or cotton swab to collect the specimen, Immediately transfer the specimen into a vial of Trypticase soy broth with 0.5% bovine albumin, Hanks balanced salt solution with 0.5% gelatin.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0653	<u>MYCOPLASMA PNEUMONIAE</u> IgG ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	<p><u>Explanation of EIA Values:</u></p> <p>≤0.14 No antibody detected. Suggests absence of prior exposure to <u>M. pneumoniae</u>.</p> <p>0.15 to 0.16 Equivocal result. Suggest a new serum specimen be submitted for testing.</p> <p>0.17 to 0.27 Low level of antibody detected.</p> <p>0.28 to 1.05 Moderate level of antibody detected.</p> <p>≥1.06 High level of anti-body detected.</p> <p>EIA values of 0.17 or greater suggest prior exposure to <u>M. pneumoniae</u>. Patients with active infection may not seroconvert for up to 4 days after onset of symptoms. Test detects IgG class of antibody. (Enzyme Immunoassay)</p>
	MYELIN ANTIBODIES	See Anti-Myelin Antibodies.	
0654	MYELIN BASIC PROTEIN	2 mL Frozen CSF - Plastic vial (1 spun barrier tube).	<p style="text-align: right;"><u>ng/mL</u></p> <p>Negative: <4</p> <p>Weakly Positive: 4-8</p> <p>Positive: >8 (Radioimmunoassay)</p>
	MYOCARDIAL ANTIBODIES	See Anti-Myocardial Antibodies.	
	MYOCARDIAL INFARCTION EVALUATION	See Panels and Profiles section.	
	MYOCARDITIS EVALUATION	See Coxsackie B Virus Antibodies (1-6).	
0655	MYOGLOBIN SERUM	1 mL Serum - Plastic vial (1 spun barrier tube).	<55 ng/mL (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0656	URINE	5 mL Frozen Random Urine - Plastic container. No preservative.	None detected. (Radioimmunoassay)
	MYSOLINE®	See Primidone.	
	N-ACETYLPROCAINAMIDE	See Procainamide.	
0657	NADH DIAPHORASE	1 mL EDTA Whole Blood (lavender top tube), or 0.5 mL Blood in vial containing dried Alsever's solution.	Enzyme activity detected. (Fluorometry)
	NAFCILLIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	NAPA	See Procainamide.	
	NASAL SMEAR FOR EOSINOPHILS	See Eosinophil Count, Nasal Smear.	
	NASOPHARYNGEAL CULTURE	See Culture, ENT/Oral in Microbiology section.	
	NEBCIN®	See Tobramycin.	
	NEFA	See Fatty Acids, Free.	
	<u>NEISSERIA GONORRHOEAE</u> ANTIGEN BY DNA PROBE	Urogenital Swab in special collection kit (Gen-Probe) provided by laboratory.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	<u>NEISSERIA MENINGITIDIS</u> ANTIGEN BY LATEX AGGLUTINATION	1 mL CSF or Serum 10 mL Random Urine or other Body Fluid - CSF: Sterile lumbar puncture. Collect specimen in sterile screw-cap tube. - If serum is submitted, transfer serum from red top tube to plastic vial. - Indicate type of fluid submitted and patient's age on test request form.	
	<u>NEISSERIA SCREEN</u>	See Culture, <u>Neisseria</u> .	
	NEMBUTAL®	See Pentobarbital.	
	NEOMYCIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	NEONATAL T-4	See T-4 (Thyroxine), Neonatal.	
	NEONATAL TSH	See Thyroid Stimulating Hormone, Neonatal.	
	NEURON SPECIFIC ENOLASE	See Enolase, Neuron Specific.	
	NEUTROPHIL CYTOPLASMIC ANTIBODY (ANCA)	See Anti-Neutrophil Cytoplasmic Antibodies.	
0658	NICKEL SERUM	3 mL Serum - Plastic vial (1 spun barrier tube). Collect in red top tube only. Do not use royal blue top trace metal tube.	<1.0 mcg/L (Graphite Furnace Atomic Absorption)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0659	URINE	75 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Record total volume on both the specimen container and the test request form.	<25 mcg/L (Spectrophotometry)
0660	NICOTINE (AS COTININE) QUALITATIVE	10 mL Urine - Plastic container.	None detected. (Immunoassay/Chromatography)
0661	NICOTINE	3 mL Serum - Plastic vial (1 spun barrier tube). Plasma is also acceptable.	3-60 ng/mL (Gas Chromatography)
0662	NITROGEN TOTAL FECES	5 grams Frozen Feces - Plastic container. Aliquot from a well-mixed, 24-, 48- or 72-hour collection. Record total weight and total collection time on both the specimen container and the test request form. Do not submit entire collection.	<2 g/24 hrs on Average Diet. (Spectrophotometry)
0663	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Acidify to pH<4 with 6N HCl*. Record total volume on both the specimen container and the test request form.	4.7-19 g/24 hrs. (Spectrophotometry)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
	NON-ESTERIFIED FATTY ACIDS	See Fatty Acids, Free.	
	NON-GYNECOLOGICAL CYTOLOGY SMEAR	See Cytologic Screening in Cytopathology/Histopathology section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	NON-LYMPHOCYTIC LEUKEMIA EVALUATION	<p>Clinical Utility: This panel is used to determine the cell type and maturational level of the non-lymphocytic leukemias. In order to identify biphenotypic leukemias, if lymphocyte populations are detected within the monocyte/myeloid populations, a reflexive lymphocytic leukemia evaluation will automatically be performed.</p> <p>WBC % CD2+, CD2+7+, CD19+ lymphocytes % HLA-DR+, CD71+ (Transferring receptor + cells), CD34+ (HPCA+) % CD13+, CD14+, CD33+ (Myeloid and Monocytic cells)</p>	
	NORDOXEPIN®	See Doxepin.	
	NOREPINEPHRINE AND EPINEPHRINE	See Catecholamines, Fractionated.	
	NORMETANEPHRINE	See Metanephrines, Fractionated.	
	NORPACE®	See Disopyramide.	
	NORPRAMIN®	See Desipramine.	
	NORTRIPTYLINE	See Aventyl®.	
	NOSE CULTURE	See Culture, ENT/Oral.	
	NUCLEOPORE	See Cytologic Screen, Non-GYN Fluid, Cytospin in Cytopathology/Histopathology section.	
0664	NUCLEOTIDASE, 5'	2 mL Serum - Plastic vial (1 spun barrier tube).	2-15 U/L (Spectrophotometry)
	O & P, BLOOD	See Malaria Smear. See also Parasite Examination.	
	O & P, FECES	See Parasite Examination.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0665	OCCULT BLOOD	5 grams Feces - Plastic container. See Microbiology section for additional test information.	None detected. (Guaiac)
	OLIGOCLONAL BANDING	See CSF Banding.	
0666	OPIATES (Includes Codeine and Morphine) URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0667	QUANTITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0668	URINE/GASTRIC FLUID QUALITATIVE	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
0669	ORGANOPHOSPHATE PESTICIDES	6 mL Serum Heparinized Blood, Plasma - Plastic vial or 10 mL Urine - Plastic container.	Negative. (High Pressure Liquid Chromatography)/Gas Chromatography)
	OROSMUCOID	See Alpha-1-Acid Glycoprotein.	
0670	OSMOLALITY SERUM	2 mL Frozen Serum - Plastic vial (spun barrier tube).	278-305 mOsm/kg (Freezing Point Depression)
0671	URINE	2 mL Frozen Urine - Plastic vial.	50-1200 mOsm/kg (Freezing Point Depression)
0672	OSTEOCALCIN	1 mL Frozen Serum - Plastic vial (spun barrier tube).	Male: 4.1-10.5 ng/mL Female: 1.7-10.9 ng/mL (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	OVA, PARASITES AND CYSTS	See Parasite Examination.	
	OXACILLIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
0673	OXALATE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 40 mL 6N HCl* to container at start of collection. Record total volume on both the specimen container and the test request form. The pH of the collection and the aliquot must be between 2 and 3. Adjust pH using 6N HCl*, as necessary.	0-40 mg/24 hrs. (Spectrophotometry)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
0674	OXAZEPAM (SERAX®)	4 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 0.2-1.4 mg/L Potentially Toxic: Not established (High Pressure Liquid Chromatography)
	PABA	See Para-Aminobenzoic Acid (Chymex®).	
	PAMELOR®	See Nortriptyline.	
	PANCREATIC ISLET CELL ANTIBODIES	See Anti-Islet Cell Antibodies.	
	PAP	See Acid Phosphatase, Prostatic.	
	PAP SMEAR	See Cytologic Screening in Cytopathology/Histopathology section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PAP SMEAR WITH CELL BLOCK	See Cytologic Screening Non-GYN Smear with Cell Block in Cytopathology/Histopathology section.	
	PAP SMEAR WITH MATURATION INDEX	See Cytologic Screening in Cytopathology/Histopathology section.	
	PARA-AMINOBENZOIC ACID (PABA)	See Chymex®.	
	PARACETAMOL®	See Acetaminophen.	
0675	PARAINFLUENZA TYPES 1-3 VIRUS ANTIBODIES	2 mL Serum - Plastic vial (1 spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection or immunity.
0676	Acute and Convalescent	NOTE: The most useful results are obtained by submitting acute and convalescent specimen together. Label each specimen acute or convalescent. Freeze acute specimen until convalescent specimen is drawn.	Titer: ≥1:8 Antibody detected. Suggests an infection at some undetermined time in the past. (Complement Fixation)
3118	PARAINFLUENZA VIRUS ANTIGEN BY DFA	Nasopharyngeal (NP) Aspirate or NP Swab.	Direct Fluorescent Antibody Staining

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PARASITE EXAMINATION	<p>Blood (Malaria Smear) Submit 2 air-dried smears (thick and thin) and one EDTA (lavender top) tube of blood.</p> <p>Feces (Ova and Parasite)</p> <ul style="list-style-type: none"> - Collect fecal specimen in clean container. - Transfer approximately 1 gram of feces to each of 2 containers: PVA vial and formalin vial. Fluid level should reach line on vial. - Mix each specimen with the preservative. - Indicate on vial label whether stool is formed (soft or hard) or diarrheal. Do not freeze. <p>For other fluids, contact the laboratory for instructions.</p>	
	PARASITE IDENTIFICATION	<p>Ectoparasite Worms Submit in a sterile container with formalin. For ticks, use 70% alcohol.</p>	
0677	PARATHYROID HORMONE (PTH) C TERMINAL	5 mL Frozen Serum - Plastic vial (1 spun barrier tube). Indicate on both the specimen container and the test request form if patient has renal disease.	50-340 pg/mL Calcium: 8.5-10.6 mg/dL (Radioimmunoassay)
0678	INTACT	2 mL Frozen Serum - Plastic vial (1 spun barrier tube).	11-54 pg/mL Calcium: 8.5-10.6 mg/dL (Immunochemiluminometric Assay)
0679	N-TERMINAL	3 mL Frozen Serum - Plastic vial (1 spun barrier tube).	4-19 pg/mL Calcium: 8.5-10.6 mg/dL (Radioimmunoassay)
	PARIETAL CELL ANTIBODIES	See Anti-Parietal Cell Antibodies.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PARTIAL THROMBOPLASTIN TIME, ACTIVATED (APTT, PTT)	See APTT.	
0680	PARVOVIRUS ANTIBODIES	2 mL Serum - Plastic vial (1 spun barrier tube).	Negative. (Western Blot Assay)
	PAS STAIN	See Stain, Periodic Acid-Schiff.	
	<u>PASTEURELLA TULARENSIS</u> AGGLUTINATION	See Tularemia Agglutinins.	
	PATHOLOGY SERVICES	See Cytopathology/Histopathology section.	
	PCP	See Phencyclidine.	
	PCV	See Hematocrit.	
	PEGANONE®	See Ethotoin.	
	PENICILLIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
0681	PENTAZOCINE (TALWIN®)	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
0682	PENTOBARBITAL (NEMBUTAL®) SERUM	3 mL Serum - Plastic vial. Do not collect in serum separator tube. See also Barbiturates.	<u>mg/dL</u> Therapeutic: 1.0-5.0 Potentially Toxic: >5.0 Treatment of intracranial pressure with supportive therapy. Adult: 25-35 Child: 20-30 (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	URINE/GASTRIC FLUID	See Barbiturates.	
	PEROXIDASE STAIN	See Stain, Peroxidase.	
0683	PERPHENAZINE	3 mL Serum - Amber plastic vial (1 spun barrier tube). Protect from light by wrapping in foil. Plasma is also acceptable.	Therapeutic: 5-30 ng/mL (High Pressure Liquid Chromatography)
	PERTOFRANE®	See Desipramine.	
0684	pH	5 grams Frozen Feces - Plastic container. Contact laboratory for special fecal collection kit. Do not submit entire collection.	5.92-8.00 pH units (Potentiometry)
0685	PHENCYCLIDINE (PCP) SERUM	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Normal: None detected. Potentially Toxic: Any significant amount. (Gas Chromatography)
0686	URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0687	QUANTITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0688	URINE/GASTRIC FLUID QUANTITATIVE	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0689	PHENELIZINE (NARDIL®)	4 mL Serum, Plasma or Urine - Plastic vial (1 spun barrier tube).	Chronic daily oral anti-depressant therapy with 60 mg: 1-10 ng/mL Gas Chromatography)
0690	PHENOBARBITAL (LUMINAL®) SERUM	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 15-40 mg/L Potentially Toxic: >40 mg/L (Immunoassay)
	URINE/GASTRIC	See Barbiturates.	
	PHENOL	See Benzene.	
0691	PHENOTHIAZINES (Reported as a group)	10 mL Urine - Plastic container.	None detected. (Colorimetric/Chromatography)
0692	PHENSUXIMIDE	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 10-20 mg/L Toxic: None established. (Gas Chromatography)
0693	PHENYLALANINE BLOOD QUANTITATIVE (PKU)	3 circles on special filter paper saturated with Blood; air-dry one hour. For California residents, please provide information required by state. Contact laboratory for special collection kit.	<4.0 mg/dL (Fluorometry)
0694	PLASMA	1 mL Fluoridated and Oxalated Plasma (gray top tube) - Plastic vial.	<4.0 mg/dL (Fluorometry)
	PHENYLKETONURIA	See Phenylalanine.	
0695	PHENYLPROPANOLAMINE	20 mL Urine - Plastic container.	None detected. (Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD												
0696	PHENYTOIN (DILANTIN®) FREE/UNBOUND (Includes Total)	2 mL Frozen Serum - Plastic vial. Do not collect in serum separator tube.	<table> <tr> <td><u>Free</u></td> <td><u>mg/L</u></td> </tr> <tr> <td>Therapeutic:</td> <td>1-2</td> </tr> <tr> <td>Potentially Toxic:</td> <td>>2</td> </tr> <tr> <td><u>Total</u></td> <td></td> </tr> <tr> <td>Therapeutic:</td> <td>10-20</td> </tr> <tr> <td>Potentially Toxic:</td> <td>>20</td> </tr> </table> (Ultrafiltration and Immunoassay)	<u>Free</u>	<u>mg/L</u>	Therapeutic:	1-2	Potentially Toxic:	>2	<u>Total</u>		Therapeutic:	10-20	Potentially Toxic:	>20
<u>Free</u>	<u>mg/L</u>														
Therapeutic:	1-2														
Potentially Toxic:	>2														
<u>Total</u>															
Therapeutic:	10-20														
Potentially Toxic:	>20														
0697	SERUM	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	<table> <tr> <td>Therapeutic:</td> <td>10-20 mg/L</td> </tr> <tr> <td>Potentially Toxic:</td> <td>>20 mg/L</td> </tr> </table> (Immunoassay)	Therapeutic:	10-20 mg/L	Potentially Toxic:	>20 mg/L								
Therapeutic:	10-20 mg/L														
Potentially Toxic:	>20 mg/L														
0698	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)												
	PHOSPHATIDYLGLYCEROL	See Lecithin/Sphingomyelin Ratio.													
0699	PHOSPHOETHANOLAMINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Acidify to pH 2-3 by adding 6N HCl*. Record total volume on both the specimen container and the test request form.	26-101 mcmoL/24 hrs (Column Chromatography)												
		*Prepare by diluting concentrated HCl with an equal volume of water.													
	PHOSPHOHEXOSE ISOMERASE	See Glucosephosphate Isomerase.													
0700	PHOSPHOLIPIDS	1 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required.	125-300 mg/dL (Spectrophotometry)												
0701	PHOSPHORUS, INORGANIC SERUM	2 mL Serum - Plastic vial (1 spun barrier tube).	2.5-4.5 mg/dL (Spectrophotometry)												

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0702	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 10 grams boric acid or 15 mL 6N HCL* to container at start of collection. Record total volume on both the specimen container and the test request form.	0.3-1.3 g/24 hrs. Varies with diet. (Spectrophotometry)
		*Prepare by diluting concentrated HCL with an equal volume of water.	
	PINWORM EXAMINATION	Perianal Material - Using the swube tube paddle, gently press the sticky side over the perianal surface, spreading open the perianal folds. - Replace the paddle in the tube and submit at room temperature.	
	PIPERACILLIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	PKU SCREEN	See Phenylalanine.	
	PLACIDYL®	See Ethchlorvynol	
0703	PLASMINOGEN ACTIVITY	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. Stable 30 days frozen.	75-128% of normal (Chromogenic)
0704	PLASMINOGEN ANTIGEN	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze. Frozen serum is also acceptable.	7-16 mg/dL (Radio Immunodiffusion)
0705	PLATELET ANTIBODIES SERUM	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Flow Cytometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PANEL	See Panels and Profiles section.	
	PLATELET-ASSOCIATED IgG	See Immunoglobulin G, Platelet Associated.	
0706	PLATELET COUNT	EDTA Whole Blood - 1 full lavender top tube. Stable 2 days at room temperature.	130-400 thous/mcL (Flow Cytometry, Automated Cytochemistry and/or Microscopy)
	PLEURAL FLUID CELL COUNT	See Cell Count, Body Fluid.	
	PM-SCL ANTIBODY	See Polymyositis-Scleroderma Antibody.	
	PM-SCL/JO-1 ANTIBODY PANEL	See Polymyositis-Scleroderma and Jo-1 Antibody.	
0707	PNEUMOCOCCAL ANTIBODIES BY EIA	1 mL Serum - Plastic vial (1 spun barrier tube). Pre- and post-vaccination pairs are recommended.	See laboratory report. (Enzyme Immunoassay)
0708	<u>PNEUMOCYSTIS CARINI</u> SMEAR	Bronchial lavage or lung biopsy. See Cytopathology/Histopathology section for additional specimen preparation information.	None detected. (Methenamine Silver/Monoclonal DF)
	PNEUMONITIS HYPERSENSITIVITY PANEL	See Hypersensitivity Pneumonitis Panels in Panels and Profiles section.	
	POLIOMYELITIS EVALUATION	See Poliovirus (Types 1,2,3) Antibodies.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0709	POLIOVIRUS (TYPES 1, 2, 3) ANTIBODIES	2 mL Serum free from hemolysis and contamination - Plastic vial (spun barrier tube).	Titer: <1:4 No antibody detected. No evidence of infection or immunity. Titer: ≥1:4 Antibody detected. Suggests an infection or immunization at some undetermined time in the past. (Neutralization)
0710	POLYCHLORINATED BIPHENYL LEVEL (PCB)	4 mL Serum - Plastic vial (1 spun barrier tube) or transport in glass containers with teflon-lined caps.	<20 mcg/L (Webb-McCall using Aroclor Standards 1242, 1254, 1260)
0711	POLYMYOSITIS-SCLERODERMA ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Immunofluorescence)
0712	POLYMYOSITIS-SCLERODERMA AND JO-1 ANTIBODY PANEL	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Immunofluorescence)
0713	PORPHOBILINOGEN	15 mL Frozen Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Refrigerate during collection. Wrap container in foil to protect from light and freeze. Record total volume on both the specimen container and the test request form. Do not submit the entire collection.	<2.0 mg/24 hrs. (Column Chromatography and Spectrophotometry)
0714	PORPHYRINS, FRACTIONATED FECES	10 grams Frozen Feces - Plastic container. Aliquot from a well-mixed, 24-, 48-, or 72-hour collection. Record total weight and total collection time on both the specimen container and the test request form. Do not send entire collection.	<u>mcg/24 hrs.</u> Octacarboxyprophyrin: <80 (Uroporphyrin) Heptacarboxyprophyrin: <20 Tetracarboxyprophyrin: <640 (Coproporphyrin) Dicarboxyprophyrin: <1830 (Protoporphyrin) (High Pressure Liquid Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0715	URINE	15 mL Urine - Plastic vial (4 spun barrier tubes) containing 20 mg sodium carbonate and 30 mg EDTA. Aliquot from a well-mixed, 24-hour collection. Protect from light by wrapping in foil. Record total volume on both the specimen container and the test request form. Do not submit entire collection.	<u>mcg/24 hrs.</u> Octacarboxyporphyrin: <27 (Uroporphyrin) Heptacarboxyporphyrin: <6 Hexacarboxyporphyrin: <3 Pentacarboxyporphyrin: <5 Tetracarboxyporphyrin: <72 (Coproporphyrin) (High Pressure Liquid Chromatography)
	PORTER SILBER	See Hydroxycorticosteroids. 17-	
0716	POTASSIUM CSF	1 mL CSF - Plastic vial (1 spun barrier tube).	Approximately 70% of plasma level: 2.2-3.3 mEq/L (Ion Selective Electrode/Flame Photometry)
0717	FECES	20 grams Feces - Plastic container. Aliquot from a random or well-mixed, 24-, 48-, or 72-hour collection. Record total specimen weight and total collection time on both the specimen container and the test request form. Do not send entire collection.	5-15 mEq/24 hrs. (Flame Photometry)
0718	SERUM	2 mL Serum - Plastic vial (1 spun barrier tube). Avoid hemolysis.	3.5-5.3 mEq/L (Ion Selective Electrode/Flame Photometry)
0719	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Refrigerate during collection. Record total volume on both the specimen container and the test request form.	25-100 mEq/24 hrs. (Ion Selective Electrode/Flame Photometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	POTASSIUM HYDROXIDE WET MOUNT	Hair Nails Skin Scrapings Tissue Collect and submit specimen as described under Culture, Fungus. Do not submit transport swab specimens.	
	PRA	See Estrogen and Progesterone Receptor Assays.	
0720	PREALBUMIN	1 mL Serum - Plastic vial (1 spun barrier tube).	10-40 mg/dL (Radial Immunodiffusion)
	PREGNANCY TESTS	See Chorionic Gonadotropin.	
	PRENATAL PROFILES	See Panels and Profiles section.	
	PRESAMINE®	See Imipramine.	
0721	PRIMIDONE (MYSOLINE®) (Includes Phenobarbital Metabolite)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Primidone</u> <u>mg/L</u> Therapeutic: 5.0-12.0 Potentially Toxic: >12.0 <u>Phenobarbital</u> Therapeutic: 15-40 Potentially Toxic: >40 (Immunoassay)
0722	PROCAINAMIDE (PRONESTYL®) (Includes N-Acetylprocainamide Metabolite)	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Procainamide</u> <u>mg/L</u> Therapeutic: 4-10 Potentially Toxic: >10 <u>Total</u> Therapeutic: 5-30 Potentially Toxic: >30 (Immunoassay)
	PROCHLORPERAZINE	See Phenothiazines.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PROFIBRINOLYSIN	See Plasminogen Activity.	
0723	PROGESTERONE	2 mL Serum - Plastic vial (1 spun barrier tube).	<u>ng/mL</u> Male: <0.4 <u>Female</u> Follicular: 0.1-1.5 Luteal: 2.5-28.0 <u>Pregnancy</u> 1st Trimester: 9.0-47 2nd Trimester: 17.0-146 3rd Trimester: 55.0-255.0 Postmenopausal: <0.2 (Radioimmunoassay)
0724	PROLACTIN	1 mL Serum - Plastic vial (1 spun barrier tube).	0-20 ng/mL (Radioimmunoassay)
	PROMAZINE	See Phenothiazines.	
	PRONESTYL®	See Procainamide.	
0725	PROPAFENONE (Includes 5-OH Propafenone Metabolite)	2 mL Serum - Plastic vial (1 spun barrier tube).	<u>Propafenone</u> Therapeutic: 200-1500 ng/mL Potentially Toxic: >1500 ng/mL <u>5-OH Propafenone:</u> No normal range established. (High Pressure Liquid Chromatography)
	PROPERDIN FACTOR B (C3PA)	See Complement Component C3, Proactivator.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PROPOXYPHENE (DARVON®) (Includes Norpropoxyphene Metabolite) SERUM		
0726		3 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>Propoxyphene</u> mcg/L Therapeutic: 100-400 Potentially Toxic: >1000 <u>Norpropoxyphene</u> Therapeutic: 600-3000 (Gas Chromatography)
0727	URINE BY GC/MS QUALITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0728	QUANTITATIVE	10 mL Urine - Plastic container.	None detected. (Gas Chromatography/Mass Spectrometry)
0729	URINE/GASTRIC FLUID	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
	PROPRANOLOL	See Inderal®.	
	PROSTATE DIAGNOSTIC PROFILE	See Panels and Profiles section.	
0730	PROSTATE SPECIFIC ANTIGEN	1 mL Serum - Plastic vial (1 spun barrier tube).	<4.0 ng/mL (Immunoradiometric Assay)
	PROSTATIC ACID PHOSPHATASE	See Acid Phosphatase, Prostatic.	
0731	PROTEIN C	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze.	2.7-5.6 mcg/L (Enzyme Linked Immunosorbent Assay)
	PROTEIN C AND S PANEL	See Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PROTEIN ELECTROPHORESIS		
0732	CSF	5 mL CSF - Plastic vial (1 spun barrier tube).	Total Protein: 15-45 mg/dL <u>% of Total</u> Prealbumin: 2.2-7.1 Albumin: 56.8-76.4 Alpha-1-Globulin: 1.1-6.6 Alpha-2-Globulin: 3.0-12.6 Beta Globulin: 7.3-17.9 Gamma Globulin: 3.0-13.0 (Electrophoresis)
0733	SERUM	3 mL Serum - Plastic vial (1 spun barrier tube). Record age of patient on both the specimen container and the test request form.	<u>g/dL</u> Total Protein: 6.0-8.5 Albumin: 3.5-5.5 Alpha-1-Globulin: 0.1-0.3 Alpha-2-Globulin: 0.2-1.1 Beta Globulin: 0.5-1.2 Gamma Globulin: 0.5-1.5 (Electrophoresis)
0734	URINE	25 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Refrigerate during collection. Record total volume on both the specimen container and the test request form.	Total Protein: <150 mg/24 hrs. Trace albumin and other globulins. (Electrophoresis)
0735	PROTEIN S	1 mL Frozen Citrated Plasma (blue top tube) - Transfer plasma to plastic vial and freeze.	13-32 mcg/mL (Enzyme Immunoassay)
0736	PROTEIN, TOTAL CSF	1 mL CSF - Plastic vial.	15-45 mg/dL (Spectrophotometry)
0737	SERUM	2 mL Serum - Plastic vial (1 spun barrier tube).	6.0-8.5 g/dL (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0738	URINE QUANTITATIVE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Refrigerate during collection. Record total volume on both the specimen container and the test request form.	<150 mg/24 hrs. (Spectrophotometry)
	QUALITATIVE	See Urinalysis.	
0739	PROTHROMBIN TIME (PT)	5 mL Citrated Whole Blood - 1 full blue top tube (BD #6419). Mix gently. Correct ratio of blood to citrate (9:1) is critical. Do not uncap. Stable 48 hours at room temperature. If specimen will be delayed longer than 48 hours, centrifuge specimen, transfer plasma to plastic vial (spun barrier tube) and freeze immediately.	See laboratory report. A therapeutic index of 1.2-1.5 is recommended for patients receiving oral anticoagulation. An index of 1.5-2.0 is recommended for patients with mechanical heart valves or recurrent systemic embolism. (Photo Optical or Mechanical Clot Detection)
0740	PROTOPORPHYRIN FREE ERYTHROCYTE (FEP)	1 mL Heparinized Whole Blood (green top tube) or 1 mL EDTA blood (lavender top tube) - Plastic vial.	<35 mcg/dL (Fluorometry)
0741	ZINC (ZPP)	2 mL Heparinized Whole Blood (green top tube) or 1 mL EDTA Whole Blood (lavender top tube) - Plastic vial.	<70 mcg/dL (Fluorometry)
0742	PROTRIPTYLINE (VIVACTIL®)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 50-150 mcg/L Potentially Toxic: >200 mcg/L (High Pressure Liquid Chromatography)
	PSEUDOCHOLINESTERASE	See Cholinesterase, Pseudo.	
	PSITTACOSIS	See <u>Chlamydia trachomatis</u> IgG Antibody.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	PT	See Prothrombin Time.	
	PTH	See Parathyroid Hormone.	
	PTT	See Partial Thromboplastin Time.	
	PYRIDOXAL PHOSPHATE	See Vitamin B6.	
0743	PYRUVATE	5 mL Protein Free Filtrate - Plastic vial (1 spun barrier tube). Collect specimen in prechilled heparinized green top tube. Mix well immediately. Add 3 mL whole blood to 6 mL, ice-cold, 8%* perchloric acid and mix. Let stand in the refrigerator for 5-10 minutes to ensure complete precipitation of protein. Centrifuge and submit clear filtrate. *Prepare by diluting 11.4 mL of 70% perchloric acid to 100 mL with water.	0.3-0.9 mg/dL (fasting) (Spectrophotometry)
0744	PYRUVATE KINASE	1 mL EDTA Whole Blood (lavender top tube) - Plastic vial (1 spun barrier tube). Do not freeze.	Enzyme activity detected. (Fluorometry)
0745	Q-FEVER ANTIBODIES (COXIELLA BURNETTI) (Includes Phase I and Phase II)	1 mL Serum - Plastic vial (1 spun barrier tube).	Titer: <1:16 No antibody detected. Titer: ≥1:16 Antibody detected. Suggestive of an infection at some undetermined time in the past. Phase II antibody is the major response in acute cases of Q-fever with phase I antibody frequently being absent. Both phase I and II antibody titers are elevated in Q-fever endocarditis and granulomatous hepatitis. (Indirect Immunofluorescence)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	QUAALUDE®	See Methaqualone.	
0746	QUINIDINE	1 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 2.0-5.0 mg/L Potentially Toxic: >5.0 mg/L (Immunoassay)
0747	QUINIDINE/QUININE	10 mL Urine/Gastric Fluid - Plastic container.	None detected. (Chromatography)
	RA TEST	See Rheumatoid Factor.	
	RAJI CELL ASSAY	See Immune Complex Raji Cell Assay.	
0748	RAPID PLASMA REAGIN (RPR) PREMARITAL	2 mL Serum - Plastic vial (spun barrier tube). Indicate on test request form if sample is for premarital test.	Non-reactive. (Agglutination)
	RAST ALLERGENS (MODIFIED RAST)	0.3 mL Serum per allergen or 1.0 mL Serum for 5 allergens - Plastic vial (1 spun barrier tube). See Panels and Profiles section for additional information.	Counts: 0-1599 (Radioimmunoassay)
	RBC	See Red Blood Cell Count.	
	RBC FOLATE	See Folic Acid, RBC.	
0749	RED BLOOD CELL COUNT (RBC)	EDTA Whole Blood - 1 full lavender top tube.	<u>mill/mcL</u> Male: 4.5-5.8 Female: 3.9-5.2 (Flow Cytometry, Automated Cytochemistry and/or Microscopy)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0750	RED BLOOD CELL INDICES (MCV, MCH, MCHC)	EDTA Whole Blood - 1 full lavender top tube.	MCV: 80-100 fL MCH: 27-33 pg MCHC: 32-36% (Flow Cytometry, Automated Cytochemistry and/or Microscopy)
0751	REDUCING SUBSTANCES	3-5 grams Frozen Feces - Plastic container.	None detected. (Spectrophotometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0752	RENIN ACTIVITY	<p>2 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial (1 spun barrier tube). Do not use heparin. Chill EDTA (lavender top tube) in an ice bath prior to drawing blood. Draw blood into cold tube, mix gently by inversion. Place tube in ice bath for 10 minutes. Centrifuge to pack cells, transfer plasma to plastic vial (spun barrier tube) and freeze.</p> <p>PRECAUTIONS: Renin activity is altered by some medications, including oral contraceptives, diuretics, and antihypertensive agents. Diurnal variations occur with highest levels in the morning. Salt intake, posture or other factors which might change extracellular fluid volumes will also alter renin values. Specimen should be collected under the following conditions: * Patient should maintain normal sodium intake (75-150 mEq) for at least 3 days prior to specimen collection. For renin studies after sodium depletion, maintain a diet of 20 mEq sodium and 90 mEq potassium for three days prior to specimen collection. * Diuretics, estrogens, and oral contraceptive agents should be discontinued for at least two weeks before study. Non-diuretic, anti-hypertensive drugs should be discontinued several days before specimen collection. * Standing samples should be collected after patient has been upright for one hour. Recumbent samples should be collected during the morning after the patient has been in a recumbent position overnight or supine at least 30-45 minutes.</p>	<p>Normal Diet: <u>ng/mL/hr</u> (75-150 mEq sodium/day) *Supine (30 min): 0.2-2.3 Upright: 1.3-4.0</p> <p>Low Salt Diet: (30-75 mEq sodium/day) Upright: 4.1-7.7</p>
			<p>NOTE: Values will be affected by patient's position and diet.</p> <p>*Non-ambulatory, hospitalized patients exhibit a higher normal-range upper limit than normal supine individuals. (Radioimmunoassay)</p>

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0753	RESPIRATORY SYNCYTIAL VIRUS ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	Titer: <1:8 No antibody detected. No evidence of infection or immunity. Titer: ≥1:8 Antibody detected. Suggest an infection or immunization at some undetermined time in the past. (Complement Fixation)
3119 3120	RESPIRATORY SYNCYTIAL VIRUS ANTIGEN BY DFA BY EIA	Nasopharyngeal (NP) Aspirate or NP Swab. Call laboratory to confirm availability.	Direct Fluorescent Antibody Staining or Enzyme Immunoassay
	RESPIRATORY VIRUS EVALUATIONS	See Panels and Profiles section.	
	RETICULIN ANTIBODIES	See Anti-Reticulin Antibodies.	
0754	RETICULOCYTE CELL COUNT	EDTA Whole Blood - 1 full lavender top tube. Stable 2 days at 4°C or room temperature.	0.5-1.5% (New Methylene Blue)
	RETINOL	See Vitamin A.	
	REVERSE T3	See Triiodothyronine, Reverse.	
	REYES SYNDROME EVALUATION	See Panels and Profiles section.	
	RF	See Rheumatoid Factors.	
0755	RHEUMATOID ARTHRITIS PRECIPITIN (RAP)	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Immunodiffusion)
	RHEUMATOID EVALUATION	See Panels and Profiles section.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	RHEUMATOID FACTOR		
0756	QUALITATIVE	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Latex Agglutination)
0757	QUANTITATIVE	1 mL Serum - Plastic vial (1 spun barrier tube).	<30 IU/mL (Nephelometry)
0758	Rh PHENOTYPING	7 mL EDTA Whole Blood - 1 full lavender top tube. Label tube clearly with patient's name.	See laboratory report. (Agglutination)
	Rh TITER	See Coombs, Indirect.	
0759	RICKETTSIAL IgG ANTIBODY (Includes Rocky Mountain Spotted Fever and Typhus, [Murine] IgG Antibodies)	1 mL Serum - Plastic vial (1 spun barrier tube).	See individual tests. (Indirect Immunofluorescence)
	RISTOCETIN COFACTOR	See Coagulation Factor VIII.	
0760	ROCKY MOUNTAIN SPOTTED FEVER IgG AND IgM ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	See individuals tests.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0761	ROCKY MOUNTAIN SPOTTED FEVER IgG ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	<p>Titer: <1:64 Titers with unremarkable clinical findings should not be considered significant. If single serum was obtained during the early acute phase of illness, it should be tested along with a convalescent serum drawn 21 days after onset of illness.</p> <p>Titer: 1:64 Titers are considered borderline, and in such instances, it is best to obtain a second specimen for testing. Minor serological crossreactivity can be demonstrated between the spotted fever and typhus groups.</p> <p>Titer: ≥1:128 Titers are good evidence of prior infection, although it is not possible to confirm that the infection was recent. (A four-fold rise in antibody titer between the acute and convalescent sera is serological evidence of recent Rickettsial infection.) Significant crossreactivity exists among the species of each group: RMSF and Rickettsial pox; murine typhus and epidemic typhus. (Indirect Immunofluorescence)</p>
0762	ROCKY MOUNTAIN SPOTTED FEVER IgM ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube), free from hemolysis and contamination.	<p>Titer: <1:40 No IgM antibody detected.</p> <p>Titer: ≥1:40 IgM antibody detected. Suggestive of a recent or current infection. (Indirect Immunofluorescence)</p>
	ROCKY MOUNTAIN SPOTTED FEVER/MURINE TYPHUS ANTIBODIES	See Rickettsial IgG Antibody.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD										
3121	ROTA VIRUS ANTIGEN DETECTION	1 gram Frozen Feces in clean, dry container. Alternately, feces-laden rectal swab(s) may be submitted. Do not use swab with a metal shaft. Do not place specimen in Viral-Chlamydial Transport Medium (VCTM).	Enzyme Immunoassay										
	RPR	See Rapid Plasma Reagin.											
0763	RUBELLA VIRUS IgG ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	<p><u>Explanation of EIA values</u></p> <table> <tr> <td>≤0.79</td> <td>No antibody detected.</td> </tr> <tr> <td>0.80-0.99</td> <td>Indeterminate result. Suggest submission of new sample in 10-14 days.</td> </tr> <tr> <td>1.00-2.89</td> <td>Low level of antibody detected.</td> </tr> <tr> <td>2.90-6.59</td> <td>Moderate level of antibody detected.</td> </tr> <tr> <td>> 6.59</td> <td>High level of antibody detected.</td> </tr> </table> <p>The presence of antibody suggests previous infection or vaccination with Rubella virus. If recent infection is suspected, the test for Rubella IgM antibody is recommended. In addition, antibody levels in acute and convalescent phase (paired) sera may be tested concurrently to determine if there has been recent or current Rubella infection. (Enzyme Immunoassay)</p>	≤0.79	No antibody detected.	0.80-0.99	Indeterminate result. Suggest submission of new sample in 10-14 days.	1.00-2.89	Low level of antibody detected.	2.90-6.59	Moderate level of antibody detected.	> 6.59	High level of antibody detected.
≤0.79	No antibody detected.												
0.80-0.99	Indeterminate result. Suggest submission of new sample in 10-14 days.												
1.00-2.89	Low level of antibody detected.												
2.90-6.59	Moderate level of antibody detected.												
> 6.59	High level of antibody detected.												

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0764	RUBELLA VIRUS IgM ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	<u>Explanation of EIA values</u> <0.910 Negative for Rubella IgM antibody and is not consistent with either acute or recent Rubella infection. 0.910-1.090 Equivocal for Rubella IgM antibody. Primary infection is suspected but not confirmed. A second specimen drawn 7-14 days from the first specimen should be submitted for second Rubella IgM determination. >1.090 Positive for Rubella IgM antibody and consistent with primary infection. (Enzyme Immunoassay)
0765	RUBEOLA VIRUS IgG ANTIBODY (MEASLES)	1 mL Serum - Plastic vial (1 spun barrier tube).	See laboratory report. (Enzyme Immunoassay)
	SALICYLATE	See Aspirin.	
	<u>SALMONELLA</u> AGGLUTINATION	See Febrile Agglutinins.	
	<u>SALMONELLA/SHIGELLA</u> SCREEN	See Culture, Stool.	
	SANDIMMUNE®	See Cyclosporine.	
	SANDOPTAL®	See Butalbital.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
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SCABIES MITE EXAMINATION

- Skin Scrapings
- Apply mineral oil to skin overlying burrows.
 - Scrape vigorously until minimal bleeding occurs.
 - Submit scrapings in a screw-cap tube or plastic container.

SCHLICHTER TEST

See Serum Bactericidal Level.

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0766	SCHILLING TEST URINE	<p>20 mL Fasting Urine - Plastic container. Aliquot from a well-mixed fasting urine, collected prior to administration of ⁵⁷Co-B₁₂ capsule for Phase I or Phase II testing</p> <p>AND</p> <p>20 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Begin collection immediately after administration of capsule. Refrigerate during collection. Record total volume and Lot number of ⁵⁷Co-B₁₂ capsule on both the specimen container and the test request form. Indicate Phase I and Phase II Schilling test. Submit the fasting and 24-hour urine on the same test request form.</p>	See laboratory report. (Radioassay)
	PHASE I TESTING	<p>The test consists of first administering a 0.5 microCi dose of ⁵⁷Co-B₁₂ orally to a fasting patient. Two hours later, the patient receives a 1 mg dose of unlabeled B₁₂ intramuscularly to saturate the binding capacity of plasma and liver and to assure adequate excretion of the vitamin. Both fasting and 24-hour urine samples are collected and assayed for radioactivity. See detailed instructions enclosed with ⁵⁷Co-B₁₂ capsule.</p>	
	PHASE II TESTING	<p>Similar to Phase I testing except that ⁵⁷Co-B₁₂ and intrinsic factor capsules must be administered simultaneously.</p>	
	SCLERODERMA ANTIBODY (SCL-70)	See Anti-Scleroderma Antibody.	
0767	SECOBARBITAL (SECONAL®) SERUM	2 mL Serum - Plastic vial. Do not collect in serum separator tube. See also Barbiturates.	Therapeutic: 1.0-5.0 mg/L Potentially Toxic: >5.0 mg/L (Gas Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD								
	URINE/GASTRIC FLUID	See Barbiturates.									
	SECONAL®	See Secobarbital.									
	SECONDARY AMENORRHEA PANEL	See Panels and Profiles section.									
	SEDIMENTATION RATE	See ESR.									
0768	SELENIUM BLOOD	2 mL Heparinized Whole Blood - Plastic vial.	100-340 ng/mL (Atomic Absorption)								
0769	SERUM	2 mL Serum - Plastic vial (1 spun barrier tube).	<150 ng/mL (Atomic Absorption)								
0770	URINE	100 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Record total volume on both the specimen container and the test request form.	<table> <tr> <td></td> <td><u>mcg/L</u></td> </tr> <tr> <td>Non-exposed subjects:</td> <td><50</td> </tr> <tr> <td>Exposed subjects:</td> <td><100</td> </tr> </table> (Spectrophotometry)		<u>mcg/L</u>	Non-exposed subjects:	<50	Exposed subjects:	<100		
	<u>mcg/L</u>										
Non-exposed subjects:	<50										
Exposed subjects:	<100										
0771	SEMEN ANALYSIS, COMPLETE	Collect entire ejaculate in clean jar or test tube and cap tightly. Deliver to laboratory within one hour of collection. Do not mail. Note day and time of collection on both the specimen container and the test request form.	<table> <tr> <td>Volume:</td> <td>1.5-5.0 mL</td> </tr> <tr> <td>Motility:</td> <td>>60% at 3 hours</td> </tr> <tr> <td>Morphology:</td> <td>>70% normal forms</td> </tr> <tr> <td>Sperm Count:</td> <td>40-200 million/mL</td> </tr> </table> (Gross/Microscopic Examination)	Volume:	1.5-5.0 mL	Motility:	>60% at 3 hours	Morphology:	>70% normal forms	Sperm Count:	40-200 million/mL
Volume:	1.5-5.0 mL										
Motility:	>60% at 3 hours										
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	SERAX®	See Oxazepam.									

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0772	SEROTONIN (5-HYDROXYTRYPTAMINE)	<p>10 mL Frozen EDTA/Ascorbic Acid Whole Blood - Special serotonin collection tube with yellow/red speckled top.</p> <p>Alternative Submission: collect 10 mL blood in lavender top tube. Mix. Transfer to plastic vial (spun barrier tube) containing 100 mg ascorbic acid. Mix thoroughly and freeze.</p> <p>Dietary Restrictions: Monamine oxidase inhibitors should be discontinued for at least one week prior to sample collection, since they tend to increase the level of serotonin. Avoid application of radioisotopes (e.g.,scans) before sample collection.</p>	<p>Adult: 50-175 ng/mL (High Pressure Liquid Chromatography/Electro-chemical Detection).</p>
	SERUM BACTERICIDAL LEVEL	<p>Serum and Bacterial Isolate</p> <ul style="list-style-type: none"> - Submit 2 mL of Frozen serum in a plastic vial. Pre-dose (trough) and post-dose (peak) specimens are recommended. - Submit an 18-24 hour agar slant or sealed agar plate culture of the organism isolated from the patient. - Provide date of subculture and identification of isolate. 	
	SEX HORMONE BINDING GLOBULIN (TeBG)	See Androgen Binding Globulin.	
	SGOT	See Aspartate Transaminase.	
	SGPT	See Alanine Aminotransferase.	
	SHBG	See Sex Hormone Binding Globulin. (Androgen Binding Globulin).	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	S HEMOGLOBIN	See Hemoglobin Electrophoresis.	
0773	SICKLE CELL SCREEN	EDTA Whole Blood - Lavender top tube.	Negative. (Hemoglobin Solubility)
0774	SILVER	0.5 gram Hair - pencil-thick bundle, cut at roots. Tape in middle of bundle and indicate root end.	Usually 0.05-0.65 mcg/g hair. (Graphite Furnace Atomic Absorption)
	SINEQUAN®	See Doxepin.	
	SJÖGREN'S ANTIBODIES (SS-A & SS-B)	See Anti-Sjögren's Antibodies.	
	SKELETAL MUSCLE ANTIBODIES	See Anti-Striated Muscle Antibodies.	
	SKIN CULTURE	See Culture, Lesion.	
0775	SKIN IMMUNOFLUORESCENCE	2 mm diameter Skin Biopsy sent in Michael's transport media at ambient temperature. (Contact lab to obtain transport media.) Do not freeze in transport media. Specimen may be snap frozen in liquid nitrogen or in dry ice within 15 minutes of excision. Store and transport frozen.	See laboratory report. (Direct Immunofluorescence)
	Sm & RNP ANTIBODIES	See Anti-ENA (Sm/RNP) Antibodies.	
	SMEAR, ACID FAST	See Acid Fast Stain.	
	SMEAR, CYTOLOGIC	See Cytopathology/Histopathology section.	
	SMEAR, GRAM STAIN	See Gram Stain.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	SMEAR, PAP	See Cytologic Screen in Cytopathology/Histopathology section.	
	SMOOTH MUSCLE ANTIBODIES	See Anti-Smooth Muscle Antibodies	
0776	SODIUM CSF	1 mL CSF - Plastic vial.	138-150 mEq/L (Ion Selective Electrode/Flame Photometry)
0777	FECES	20 grams Feces - Plastic container. Aliquot from a 24-, 48-, or 72-hour collection. Record total specimen weight and total collection time on both the specimen container and the test request form. Do not submit entire collection.	0.5-5.0 mEq/24 hrs. (Flame Photometry)
0778	SERUM	2 mL Serum - Plastic vial (1 spun barrier tube).	135-148 mEq/L (Ion Selective Electrode/Flame Photometry)
0779	URINE	15 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Refrigerate during collection. Record total volume on both the specimen container and the test request form.	40-200 mEq/24 hrs. (Ion Selective Electrode/Flame Photometry)
	SOMA®	See Carisoprodol.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																								
0780	SOMATOMEDIN C	1 mL Frozen Serum - Plastic vial (1 spun barrier tube). Record patient's age and sex on both the specimen container and the test request form.	<table> <thead> <tr> <th><u>Age</u></th> <th><u>Male ng/mL</u></th> <th><u>Female ng/mL</u></th> </tr> </thead> <tbody> <tr> <td>1-2 yrs</td> <td>22-87</td> <td>22-93</td> </tr> <tr> <td>3-5 yrs</td> <td>20-126</td> <td>28-150</td> </tr> <tr> <td>6-9 yrs</td> <td>45-167</td> <td>53-212</td> </tr> <tr> <td>10-12 yrs</td> <td>158-282</td> <td>161-580</td> </tr> <tr> <td>13-15 yrs</td> <td>152-494</td> <td>298-568</td> </tr> <tr> <td>16-18 yrs</td> <td>211-454</td> <td>204-473</td> </tr> <tr> <td>> 18 yrs</td> <td>90-318</td> <td>116-270</td> </tr> </tbody> </table> (Radioimmunoassay)	<u>Age</u>	<u>Male ng/mL</u>	<u>Female ng/mL</u>	1-2 yrs	22-87	22-93	3-5 yrs	20-126	28-150	6-9 yrs	45-167	53-212	10-12 yrs	158-282	161-580	13-15 yrs	152-494	298-568	16-18 yrs	211-454	204-473	> 18 yrs	90-318	116-270
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> 18 yrs	90-318	116-270																									
	SOPOR®	See Methaqualone.																									
0781	SPERM ANTIBODIES ANTIBODY PANEL	2 mL Serum - Plastic vial (1 spun barrier tube). Panel is recommended over individual requests.	See individual test. (Flow Cytometry)																								
0782	IgA ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Flow Cytometry)																								
0783	IgG ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Flow Cytometry)																								
0784	IgM ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Flow Cytometry)																								
0785	SPERM COUNT	Collect entire ejaculate in a clean jar or test tube and cap tightly. Deliver to laboratory within 3 hours of collection. Not mailable. Note time and date of collection on both the specimen container and the test request form.	Normal: 40-200 million/mL Post Vasectomy: No sperm seen (Microscopic Evaluation)																								
	SPERM MOTILITY	See Semen Analysis.																									
	SS-A ANTIBODIES	See Sjögren's Antibodies.																									
	SS-B ANTIBODIES	See Sjögren's Antibodies.																									

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	STAINS		
0786	ACID PHOSPHATASE, WITH TARTARIC ACID INHIBITION	Check laboratory for availability.	
0787	ESTERASE, ALPHA NAPHTHOL ACETATE	Check laboratory for availability.	
0788	ESTERASE, CHLOROACETATE	Check laboratory for availability.	
0789	ESTERASE, DOUBLE	Check laboratory for availability.	
0790	HEINZ BODIES	1 mL EDTA Whole Blood - lavender top tube. Stable 2 days at room temperature.	None seen. (Microscopic Examination)
0791	HEMOSIDERIN	30 mL Fresh Urine - Plastic container. First morning sample is preferred.	None detected. (Prussian Blue)
0792	KLEINHAUER-BETKE	Check laboratory for availability.	
0793	PERIODIC ACID-SCHIFF, GLYCOGEN (PAS)	Check laboratory for availability.	
0794	PEROXIDASE LEUKOCYTE	Check laboratory for availability.	
	SUDAN BLACK B	Check laboratory for availability.	
0795	WRIGHT-GIEMSA	Check laboratory for availability.	
	STARCH, FECAL	Submit minimum of 2 grams of feces in a small leak-proof plastic container.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	ST. LOUIS ENCEPHALITIS ANTIBODIES	See Arbovirus Antibody Panel.	
	STOOL CULTURE	See Culture, Stool.	
	<u>STREPTOCOCCUS AGALACTIAE</u> ANTIGEN	1 mL CSF or Serum 10 mL Random Urine or other Body Fluid tube to plastic vial. - CSF: Sterile lumbar puncture. Collect specimen in sterile screw-cap tube. - If serum is submitted, transfer serum from red top tube. - Indicate type of fluid submitted and patient's age on Test Request Form.	
	<u>STREPTOCOCCUS PNEUMONIAE</u> ANTIGEN (PNEUMOCOCCUS)	1 mL Serum 10 mL Random Urine or other Body Fluid tube to plastic vial. - CSF: Sterile lumbar puncture. Collect specimen in sterile screw-cap tube. - If serum is submitted, transfer serum from red top tube. - Indicate type of fluid submitted and patient's age on Test Request Form.	
	STREPTOMYCIN MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
0796	STREPTOZYME™	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Indirect Hemagglutination)
	STRIATED MUSCLE ANTIBODIES	See Skeletal Muscle Antibodies.	
0797	STRYCHNINE	50 mL Urine/Gastric Fluid - Plastic container. No preservative.	None detected. (Chromatography)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	SUBSTANCE ABUSE PANELS	See Drug Testing section.	
0798	SULFHEMOGLOBIN	7 mL EDTA Whole Blood - 1 full lavender top tube.	None detected. (Spectrophotometry)
0799	SULFONAMIDES	3 mL EDTA Plasma (lavender top tube) - Plastic vial.	Therapeutic: 50-150 mg/L Potentially Toxic: Not established. (Spectrophotometry)
	SURMONTIL®	See Trimipramine.	
1067	SUSCEPTIBILITY BY MBC, AEROBIC ORGANISM	Isolated organism or organism isolated from our primary cultures. - Submit an 18-24 hour culture on agar slant or sealed agar plate. Provide date of subculture, identification, and source of isolate. - Indicate specific antibiotic(s) to be tested.	
1068	SUSCEPTIBILITY BY MBC, ANAEROBIC ORGANISM	Isolated organism or organism isolated from our primary cultures. - Submit an 18-24 hour culture in an anaerobic transport system. - Provide date of subculture, identification, and source of isolate. - Indicate specific antibiotic(s) to be tested.	
1069	SUSCEPTIBILITY BY MIC, AEROBIC ORGANISM	Isolated organism or organism isolated from our primary cultures. - Submit an 18-24 hour culture on agar slant or sealed agar plate. - Provide date of subculture, identification, and source of isolate. - Indicate specific antibiotic(s) to be tested.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
1070	SUSCEPTIBILITY BY MIC, ANAEROBIC ORGANISM	<p>Isolated organism or organism isolated from our primary cultures.</p> <ul style="list-style-type: none"> - Submit an 18-24 hour culture in an anaerobic transport system. - Provide date of subculture, identification, and source of isolate. - Indicate specific antibiotic(s) to be tested. 	
	SUSCEPTIBILITY , DRUG SYNERGY	<p>Isolated organism or organism isolated from our primary cultures.</p> <ul style="list-style-type: none"> - Submit an 18-24 hour culture on agar slant or sealed agar plate. - Provide date of subculture, identification, and source of isolate. - Indicate specific antibiotic(s) to be tested. 	
	SUSCEPTIBILITY, FUNGUS	<p>Isolated yeast or yeast isolated from our primary cultures.</p> <ul style="list-style-type: none"> - Submit a pure subculture of yeast to be tested on nutrient agar slant or appropriate agar plate. - Ship at room temperature. - Indicate specific antifungal agent(s) to be tested. 	
	SUSCEPTIBILITY, <u>MYCOBACTERIUM</u>	<p>Isolated organism or organism isolated from our primary cultures.</p> <ul style="list-style-type: none"> - Submit isolate on suitable mycobacterial medium. - Organisms must be transported in sealed canisters. <p>Use CDC guidelines for transport of biohazardous material. See <u>Mycobacterium</u> Identification.</p> <ul style="list-style-type: none"> - Provide information on patient therapy and/or laboratory data. - Indicate whether primary and/or secondary drugs are to be tested. 	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
1073	SUSCEPTIBILITY PANEL, AEROBIC ORGANISM	<p>Isolated organism or organism isolated from our primary cultures.</p> <ul style="list-style-type: none"> - Submit isolate on agar slant or sealed agar plate. - Provide date of subculture. - Indicate source of isolate. 	
1074	SUSCEPTIBILITY PANEL, ANAEROBIC ORGANISM	<p>Isolated organism or organism isolated from our primary cultures.</p> <ul style="list-style-type: none"> - Submit organism on suitable agar slant or sealed agar plate and transport anaerobically. - Provide date of subculture. - Indicate source of isolate. 	
	SYNERGY STUDY	See Susceptibility, Drug Synergy.	
0800	SYNOVIAL FLUID ANALYSIS	<p>2 mL EDTA or Heparinized Synovial Fluid (lavender or green top tube) and 2 mL Synovial Fluid in sterile plastic tube (no anticoagulant).</p> <p>Reference Range</p> <p>Appearance: Yellow Clarity: Clear Crystals: None detected for presence of calcium pyrophosphate, cholesterol or uric acid crystals.</p> <p>Cell Count: <200 nucleated cells/mcL (polymorphonuclear)</p> <p>Differential: <25% Neutrophils</p> <p>Mucin Clot: Good clot</p> <p>Viscosity: High Viscosity</p>	<p>See below: (Polariscopy/Microscopic Examination/Ropes Test)</p>

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	SYNOVIAL FLUID CELL COUNT	See Cell Count, Body Fluid.	
	SYPHILIS SEROLOGY SCREEN	See Rapid Plasma Reagin. (RPR)	
0801	T-3 UPTAKE	1 mL Serum - Plastic vial (1 spun barrier tube).	22-35 % (Radioimmunoassay)
0802	T-4 (THYROXINE) FREE	1 mL Serum - Plastic vial (1 spun barrier tube).	0.9-2.5 ng/dL (Radioassay)
	FREE BY EQUILIBRIUM DIALYSIS	See Thyroxine by Equilibrium Dialysis, Free.	
0803	TOTAL NEONATAL	Filter paper bearing 6 property saturated circles of blood. Contact laboratory for instructions and special filter paper.	1-5 days: >7.5 mcg/dL >6 days: >6.5 mcg/dL (Radioimmunoassay)
0804	SERUM	1 mL Serum - Plastic vial (1 spun barrier tube).	4.5-12.5 mcg/dL (Radioimmunoassay)
	TB CULTURE	See Culture, Mycobacteria.	
	TB CULTURE FOR IDENTIFICATION	See <u>Mycobacterium</u> Identification.	
	TBG	See Thyroxine Binding Globulin.	
	TB SMEAR	See Acid Fast Stain.	
	TB SUSCEPTIBILITY	See Susceptibility Panel, <u>Mycobacterium</u> .	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0805	T CELL RECEPTOR GENE REARRANGEMENT ANALYSIS	10-15 mL ACD-a or EDTA Whole Blood or 2 mL Bone Marrow Aspirate collected in EDTA. Maintain and ship at room temperature. Alternate submission: 200 mg Lymph Node Biopsy or other Tissue, fresh frozen or frozen in OCT.	No gene rearrangement detected. (DNA Probe)
	TdT	Clinical Utility: TdT is an enzyme found in immature lymphocytes and may aid in the classification of undifferentiated leukemias. The presence of TdT may correlate with clinical response to alkaloids. % TdT positive cells	
	TeBG	See Sex Hormone Binding Globulin.	
	TEGRETOL®	See Carbamazepine.	
0806	TEICHOIC ACID ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	Normal: <1:2 Titers of >1:2 are suggestive of deep-seated <u>Staphylococcus aureus</u> infection. (Immunodiffusion)
	TEMPRA®	See Acetaminophen.	
	TERMINAL DEOXYNUCLEOTIDYL TRANSFERASE (TdT)	See Flow Cytometry section.	
	TESTICULAR TUMOR PANEL	See Panels and Profiles section.	
0807	TESTOSTERONE FREE AND WEAKLY BOUND	3 mL Serum - Plastic vial (1 spun barrier tube). Indicate patient's sex on both the specimen container and the test request form.	<u>Free</u> Male: 50-260 pg/mL Female: 3-13 pg/mL <u>Free Plus Weakly Bound</u> Male: 70-530 ng/dL Female: 4-23 ng/dL

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0808	TOTAL	1 mL Serum - Plastic vial (1 spun barrier tube). Record patient's sex on both the specimen container and the test request form.	<u>ng/dL</u> Male: 225-900 Female: 25-95 (Radioimmunoassay)
	TESTOSTERONE BINDING GLOBULIN	See Sex Hormone Binding Globulin.	
0809	TETANUS ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	>0.10 IU/mL (Enzyme Immunoassay)
	TETRACYCLINE MICROBIAL ASSAY	See Antibiotic Microbial Assay.	
	TETRAHYDROCANNABINOL	See also Marijuana Metabolites.	
0810	TETRAHYDROCANNABINOL, DELTA-9 by GC/MS (Includes Delta-9-carboxy THC metabolite)	5 mL Serum - Plastic vial. Do not collect in serum separator tube.	None detected. (Gas Chromatography/Mass Spectrometry)
0811	THALLIUM BLOOD	10 mL Heparinized Whole Blood - (royal blue top trace metal tube).	None detected. (Atomic Absorption)
0812	URINE	50 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. No preservative. Record total volume on both the specimen container and the test request form.	None detected. (Atomic Absorption)
	THC	See Tetrahydrocannabinol.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	T-HELPER/SUPPRESSOR PANEL	Clinical Utility: T-Helper/Suppressor (CD4/CD8) counts are useful in monitoring the immune status of patients with documented HIV-1 infection. WBC total and absolute lymphocytes % CD4+ and % CD8+ lymphocytes Absolute CD4+ and CD8+ lymphocytes Helper/Suppressor ratio	
	THEOPHYLLINE	See Aminophylline®.	
0813	<u>THERMOACTINOMYCES CANDIDUS</u> ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Immunodiffusion)
0814	<u>THERMOACTINOMYCES SACCAHARI</u> ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Immunodiffusion)
0815	<u>THERMOACTINOMYCES VULGARIS</u> ANTIBODIES	1 mL Serum - Plastic vial (1 spun barrier tube).	None detected. (Immunodiffusion)
	THIAMINE	See Vitamin B1.	
	THIAMINE NUTRITIONAL STATUS	See Transketolase.	
0816	THIOCYANATE	3 mL Serum - Plastic vial (1 spun barrier tube).	<u>mg/L</u> Non-smokers: <5 Smokers: 4-15 Potentially Toxic: >20 (Spectrophotometry)
0817	THIORIDAZINE (MELLARIL®) SERUM	5 mL Serum - Plastic vial. Do not collect in serum separator tube.	<u>mg/L</u> Therapeutic: 0.2-2.6 Potentially Toxic: Not established. (Gas Chromatography)
	URINE/GASTRIC FLUID	See Phenothiazines.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0818	THIOTHIXENE (NAVANE®)	5 mL Serum - Plastic vial. Do not collect in serum separator tube.	See laboratory report. (Gas Chromatography)
	THORAZINE®	See Chlorpromazine.	
	THROAT CULTURE	See Culture, ENT/Oral.	
	THROMBIN III	See Antithrombin III.	
0819	THROMBIN TIME	5 mL Citrated Whole Blood - 1 full blue top tube. Mix gently. Maintain at room temperature. Do not uncap. Correct ratio of blood to citrate (9:1) is critical. Stable 48 hours at room temperature.	See laboratory report. (Clotting Time)
0820	THYROGLOBULIN	1 mL Serum - Plastic vial (1 spun barrier tube).	0-60 ng/mL (Radioimmunoassay)
	THYROGLOBULIN ANTIBODIES	See Anti-Thyroglobulin Antibodies.	
	THYROID AUTO-ANTIBODIES	See Anti-Thyroid Antibodies.	
	THYROIDITIS PROFILE	See Panels and Profiles section.	
	THYROID MICROSOMAL ANTIBODIES	See Anti-Thyroid Microsomal Antibodies.	
0821	THYROID PANEL	2 mL Serum - Plastic vial (1 spun barrier tube).	T-4: 4.5-12.5 mcg/dL T-3 Uptake: 22-35% Free T-4 Index (T-7): 1.4-3.8 mcg/dL (calculated) (Radioimmunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	THYROID PANEL, HYPER	See Panels and Profiles section.	
	THYROID PANEL, HYPO	See Panels and Profiles section.	
0822	THYROID STIMULATING HORMONE (TSH) NEONATAL	Filter paper bearing 6 properly saturated circles of Blood. Contact laboratory for instructions and special filter paper.	<20 mcIU/mL at 3-5 days of age. (Radioimmunoassay/ Chemiluminescence)
0823	HIGHLY SENSITIVE	1 mL Serum - Plastic vial (1 spun barrier tube).	0.3-5.0 mcIU/mL (Chemiluminescence)
0824	ULTRA SENSITIVE (THIRD GENERATION)	1 mL Serum - Plastic vial (1 spun barrier tube).	0.3-5.0 mcIU/mL (Chemiluminescence)
0825	THYROID STIMULATING HORMONE RECEPTOR ANTIBODY (TB II)	1 mL Frozen Serum - Plastic vial (1 spun barrier tube).	<11% Binding (Radioimmunoassay)
0826	THYROID STIMULATING IMMUNOGLOBIN (TSIG)	3 mL Frozen Serum - Plastic vial (1 spun barrier tube).	<2 mIU TSH Eq/mL (Bioassay/Radioimmunoassay)
0827	THYROXINE BINDING GLOBULIN (TBG)	1 mL Serum - Plastic vial (1 spun barrier tube).	16-34 mcg/mL (Radiometric)
	THYROXINE	See T-4 (Thyroxine).	
0828	THYROXINE BY EQUILIBRIUM DIALYSIS, FREE	2 mL Serum - Plastic vial (1 spun barrier tube) . Specify methodology.	Free T-4: 1.0-2.3 ng/dL T-4: 4.5-12.5 mcg/dL (Equilibrium Dialysis)
	TISSUE ANTIBODY PANEL	See Panels and Profiles section.	
	TISSUE CULTURE	See Culture, Tissue.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0829	TISSUE IMMUNOFLUORESCENCE STUDY (Includes IgA, IgM, IgG, C3, C1q, Fibrinogen)	0.1 to 0.8 cm Tissue Biopsy. Submit specimen at room temperature in Michael's transport media. Do not freeze in transport media. Tissue, snap frozen in liquid nitrogen or on dry ice is also acceptable (store and transport frozen).	See laboratory report. (Direct Immunofluorescence)
	TISSUE IMMUNOHISTOCHEMISTRY PANELS	See Panels and Profiles section.	
	TISSUE PATHOLOGY	See Cytopathology/Histopathology section.	
0830	TOBRAMYCIN (NEBCIN®)	1 mL Serum - Plastic vial. Do not collect in serum separator tube. Peak sample should be drawn 60 minutes after an intramuscular injection; 30 minutes after the end of a 30-minute intravenous infusion, or within 15 minutes after a 60-minute intravenous infusion. Trough sample should be drawn immediately prior to next dose.	<u>Therapeutic</u> <u>mg/L</u> Peak: 5.0-10.0 Trough: 1.0-2.0
0831	PEAK		<u>Potentially Toxic</u> Peak: >12.0
0832	TROUGH		Trough: >2.0 (Immunoassay)
0833	TOCAINIDE (TONOCARD®)	2 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 4-10 mg/L Potentially Toxic: Not established. (High Pressure Liquid Chromatography)
	TOCOPHEROL	See Vitamin E.	
	TOFRANIL®	See Imipramine.	
	TOGAVIRUS	See Arbovirus Antibodies in Virology section.	
	TONOCARD®	See Tocainide.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
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TORCH PANELS

See Panels and Profiles section.

TOXICOLOGY DRUG SCREEN

- 50 mL Random Urine - Plastic container.
- All Gastric Contents (if available) - Plastic container.

This qualitative analysis is similar to the Comprehensive Drug Analysis; however, it is only performed on urine or gastric specimens. It is a rapid analysis designed to detect drugs taken in overdose. To meet more specialized needs, such as tests for drugs not included below or additional test options, please contact the laboratory.

Analyses Performed

Amphetamines

- Amphetamine (Benedrine®)
- Methamphetamine (Desoxyn®)

Analgesics

- Acetaminophen
- Salicylates

Anticonvulsants

- Phenobarbital
- Phenytoin

Antidepressants

- Amitriptyline (Elavil®)
- Nortriptyline (Aventyl®)
- Doxepin (Sinequan®)
- Imipramine (Tofranil®)
- Desipramine (Norpramin®)

Antihistamines/Decongestants

- Chlorpheniramine
- Diphenhydramine
- Ephedrine
- Phenylpropanolamine

Miscellaneous Agents

- Cocaine and Metabolites
- Dextromethorphan
- Lidocaine
- Phencyclidine
- Quinine/Quinidine

Narcotics

- Codeine
- Hydromorphone (Dilaudid®)
- Meperidine (Demerol®)
- Methadone (Dolophine®)
- Morphine (Heroin)
- Pentazocine (Talwin®)
- Propoxyphene and Metabolite (Darvon®)

Sedatives and Hypnotics

- Amobarbital
- Butobarbital (Butisol®)
- Butalbital (Fiorinal®)
- Ethchlorvynol (Placidyl®)
- Flurazepam (Dalmane®)
- Glutethimide (Doriden®)
- Meprobamate (Equanil®)
- Methaqualone (Quaalude®)
- Pentobarbital (Nembutal®)
- Phenobarbital (Luminal®)
- Secobarbital (Seconal®)

Tranquilizers

- Benzodiazepine and Metabolites
- Phenothiazines and Metabolites

Volatiles

- Acetone
- Alcohol, Ethyl
- Alcohol, Isopropyl
- Alcohol, Methyl

Consultation with the attending physician is desirable.

Note: Do not use alcohol or alcohol-containing solutions as a skin preparation for drawing blood specimens. We suggest using nonalcoholic solutions such as Betadine® or Zephiran®.

0834	TOXOPLASMA IgG ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	See laboratory report. (Enzyme Immunoassay)
0835	IgM ANTIBODY BY IMMUNOFLUORESCENCE	1 mL Serum - Plastic vial (1 spun barrier tube).	See laboratory report. (Immunofluorescence)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0836	BY ENZYME IMMUNOASSAY	1 mL Serum - Plastic vial (1 spun barrier tube).	See laboratory report. (Enzyme Immunoassay)
0837	TRANSFERRIN	1 mL Serum - Plastic vial (1 spun barrier tube).	252-429 mg/dL (Nephelometry)
0838	TRANSKETOLASE	1 mL Frozen Heparinized Whole Blood (green top tube) - Plastic vial.	0.75-1.30 IU/g Hemoglobin (Spectrophotometry)
	TRANXENE®	See Clorazepate.	
	TRAZODONE	See Desyrel®.	
0839	<u>TREPONEMA PALLIDUM</u> ANTIBODIES BY MHA	1 mL Serum - Plastic vial (1 spun barrier tube).	Non-reactive (Hemagglutination)
	TRIAVIL®	See Amitriptyline.	
0840	TRIAZOLAM (HALCION®)	3 mL Serum - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 2-9 mcg/L Potentially Toxic: Not established. (Gas Chromatography)
0841	<u>TRICHINELLA</u> ANTIBODIES BY LATEX AGGLUTINATION	1 mL Serum - Plastic vial (1 spun barrier tube).	<1:5 (Latex Agglutination)
0842	<u>TRICHINELLA</u> IgG AND IgM ANTIBODIES	2 mL Serum - Plastic vial (1 spun barrier tube).	Not detected. (Enzyme immunoassay)
	<u>TRICHOMONAS VAGINALIS</u> SMEAR	Prostatic fluid Urethral Vaginal Obtain specimen on swab, prepare slide, air dry and submit both slide and swab, or, submit an air-dried smear on microscope slide.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD																																	
0843	TRIFLUOPERAZINE SERUM	3 mL Serum - Plastic vial (1 spun barrier tube). Protect from light by wrapping in foil.	Therapeutic: 1-40 ng/mL (High Pressure Liquid Chromatography)																																	
	URINE/GASTRIC	See Phenothiazines.																																		
	TRIFLUPROMAZINE	See Phenothiazines.																																		
0844	TRIGLYCERIDES	2 mL Serum - Plastic vial (1 spun barrier tube). Fasting specimen required. Patient should fast 12-16 hours prior to collection.	<table> <thead> <tr> <th>Age</th> <th>Male</th> <th>Female</th> </tr> <tr> <td></td> <th colspan="2">(mg/dL) (mg/dL)</th> </tr> </thead> <tbody> <tr> <td>1-6 days</td> <td>10-170</td> <td>10-170</td> </tr> <tr> <td>1 wk-5 yrs</td> <td>10-120</td> <td>10-120</td> </tr> <tr> <td>6-9 yrs</td> <td>28-85</td> <td>32-120</td> </tr> <tr> <td>10-14 yrs</td> <td>33-111</td> <td>39-120</td> </tr> <tr> <td>15-19 yrs</td> <td>38-143</td> <td>36-126</td> </tr> <tr> <td>20-29 yrs</td> <td>20-140</td> <td>20-140</td> </tr> <tr> <td>30-39 yrs</td> <td>20-150</td> <td>20-150</td> </tr> <tr> <td>40-49 yrs</td> <td>20-160</td> <td>20-160</td> </tr> <tr> <td>>50 yrs</td> <td>20-190</td> <td>20-190</td> </tr> </tbody> </table> (Spectrophotometry)	Age	Male	Female		(mg/dL) (mg/dL)		1-6 days	10-170	10-170	1 wk-5 yrs	10-120	10-120	6-9 yrs	28-85	32-120	10-14 yrs	33-111	39-120	15-19 yrs	38-143	36-126	20-29 yrs	20-140	20-140	30-39 yrs	20-150	20-150	40-49 yrs	20-160	20-160	>50 yrs	20-190	20-190
Age	Male	Female																																		
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1-6 days	10-170	10-170																																		
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20-29 yrs	20-140	20-140																																		
30-39 yrs	20-150	20-150																																		
40-49 yrs	20-160	20-160																																		
>50 yrs	20-190	20-190																																		
0845	TRIIODOTHYRONINE (T-3) FREE (Includes Total T-3)	2 mL Serum - Plastic vial (1 spun barrier tube).	Free T3: 250-550 pg/dL T3: 85-185 ng/dL (Radioimmunoassay)																																	
0846	REVERSE	1 mL Frozen Serum - Plastic vial (1 spun barrier tube). Frozen EDTA Plasma (lavender top tube) is also acceptable.	5.8-19.4 ng/dL (Radioimmunoassay)																																	
0847	TOTAL	2 mL Serum - Plastic vial (1 spun barrier tube).	85-185 ng/dL (Radioimmunoassay)																																	
	UPTAKE	See T-3 Uptake.																																		

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0848	TRIMIPRAMINE (SURMONTIL®)	3 mL Frozen Serum - Plastic vial (1 spun barrier tube). Frozen EDTA Plasma (lavender top tube) also acceptable. Do not collect in serum separator tube.	Therapeutic: Not established. Potentially Toxic: >1000 mcg/L (Gas Chromatography)
0849	TRIOSE PHOSPHATE ISOMERASE	1 mL EDTA Blood (lavender top tube) - Plastic vial (1 spun barrier tube). Do not freeze.	Enzyme activity detected. (Fluorometry)
0850	TRYPSIN FECES	2 grams Frozen Random Feces - Plastic container. No preservative.	Activity at >1:10 dilution (Spectrophotometry)
0851	SERUM	1 mL Frozen Serum - Plastic vial (1 spun barrier tube). Fasting specimen required.	17-65 ng/mL (Radioimmunoassay)
0852	TRYPTOPHAN	1 mL Frozen Serum - Plastic vial (1 spun barrier tube).	1.4-3.0 mg/dL (Fluorometry)
	TSH	See Thyroid Stimulating Hormone.	
	TSH, NEONATAL	See Thyroid Stimulating Hormone, Neonatal.	
	TSH RECEPTOR ANTIBODY	See Thyroid Stimulating Hormone Receptor Antibody.	
0853	TULAREMIA AGGLUTININS	1 mL Serum - Plastic vial (1 spun barrier tube). Avoid hemolysis. Do not inactivate serum.	<1:80 (Tube Agglutination)
	TYLENOL®	See Acetaminophen.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0854	TYPHUS (MURINE) IgG ANTIBODY	1 mL Serum - Plastic vial (1 spun barrier tube).	<p>Titer: <1:64 Titers with unremarkable clinical findings should not be considered significant. If single serum was obtained during the early acute phase of illness, it should be tested along with a convalescent serum drawn 21 days after onset of illness.</p> <p>Titer: 1:64 Titers are considered borderline, and in such instances, it is best to obtain a second specimen for testing. Minor serological crossreactivity can be demonstrated between the spotted fever and typhus groups.</p> <p>Titer: ≥1:128 Titers are good evidence of prior infection, although it is not possible to confirm that the infection was recent. (A fourfold rise in antibody titer between the acute and convalescent sera is serological evidence of recent Rickettsial infection.) Significant crossreactivity exists among the species of each group. RMSF and Rickettsialpox; murine typhus and epidemic typhus. (Indirect Immunofluorescence)</p>
	UIS	See Uroporphyrinogen-1-Synthase.	
	UNDETERMINED LEUKEMIA PANEL	<p>Clinical Utility: This panel is recommended when the leukemic lineage can not be determined solely by morphology. This panel is performed in two steps. First, a basic panel of leukocyte markers is tested to determine cell lineage. Based on the results of the basic panel, a cell lineage-specific group of markers will be tested to determine the immunophenotype of the leukemic cells.</p> <p>WBC absolute and total lymphocytes % CD2+, CD7+, CD13+, CD14+, CD19+, HLA-DR+</p>	<p>Note: Additional cell-lineage markers will be performed at no charge as necessary based on the results of the above panel.</p>
	UREA NITROGEN	See Blood Urea Nitrogen (BUN).	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	URETHRAL CULTURE	See Culture, Genital.	
0855	URIC ACID SERUM	2 mL Serum - Plastic vial (1 spun barrier tube).	Male: 4.0-8.5 mg/dL Female: 2.5-7.5 mg/dL (Spectrophotometry)
0856	URINE	15 mL Urine- Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 5 grams sodium carbonate to container at start of collection. Record total volume on both the specimen container and the test request form.	200-750 mg/24 hrs (Spectrophotometry)
	URINALYSIS, MACROSCOPIC	10 mL Urine - Yellow screw-cap tube containing preservative. Please indicate on tube if specimen is from a pediatric patient. Stable 3 days at room temperature, if preserved.	See Urinalysis, Routine. (Macroscopic Examination)
0857	URINALYSIS, ROUTINE	10 mL Urine - Yellow screw-cap tube containing preservative. Please indicate on tube if specimen is from a pediatric patient. Stable 3 days at room temperature, if preserved.	Color: Yellow Appearance: Clear pH: 4.6-8.0 Protein: Negative Glucose: Negative Bilirubin: Negative Ketones: Negative Occult Blood: Negative Leukocyte Esterase: Negative Nitrite: Negative Specific Gravity: 1.001-1.035 <u>Microscopic</u> <u>WBC</u> Male: 0-5.0/HPF Female: 0-10.0/HPF RBC: 0-3/HPF Other: See laboratory report (HPF = High Power Field) (Macroscopic/Microscopic Examination)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	URINE CULTURE	See Culture, Urine.	
	URINE DRUG ABUSE SCREEN	See Drug Testing section.	
0858	UROBILINOGEN	5 grams Frozen Feces - Plastic container.	75-350 Ehrlich units/100 g wet weight. (Colorimetry)
	UROGENITAL EVALUATION	See Panels and Profiles section.	
0859	UROPORPHYRINOGEN-1-SYNTHASE (UIS)	1 mL EDTA (lavender top tube) or Heparinized (green top tube) Whole Blood - Plastic vial (spun barrier tube). Record hematocrit information on both the specimen container and the test request form.	38-74 nmol uroporphyrin/mL RBC/hr at 37°C. (Fluorometry)
	UROPORPHYRINS FECES	See Porphyrins, Fractionated, Feces.	
	URINE	See Porphyrins, Fractionated, Urine.	
	VAGINAL CULTURE	See Culture, Genital.	
	VAGINITIS/VAGINOSIS PANEL	Vaginal Secretions <ul style="list-style-type: none"> - Collect secretions from vaginal wall with four transport swabs. - Collect one transport swab for two smears (Gram stain and yeast smear). - Collect one transport swab for <u>Trichomonas vaginalis</u> smear. - Collect one transport swab for Culture, Genital. - Collect one transport swab for Culture, Yeast. 	
	VALIUM®	See Diazepam.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	VALPROIC ACID	See Depakene®.	
	VANCOGIN®	See Vancomycin.	
0860	VANCOMYCIN CSF	1 mL CSF - Plastic vial. Do not collect in serum separator tube.	Therapeutic: 50-100 mg/L Potentially Toxic: >100 mg/L (Immunoassay)
0861	SERUM	1 mL Serum - Plastic vial (1 spun barrier tube). Refrigerate. Obtain specimens as follows:	<u>Therapeutic:</u> mg/L Peak: 30-40 Trough: 5-10
0862	PEAK	Peak sample should be drawn 30 minutes after the completion of a 60-minute intravenous infusion.	<u>Potentially Toxic:</u> Peak: >40
0863	TROUGH	Trough sample should be drawn immediately prior to the next dose.	Trough: >10 (Immunoassay)
0864	VANILLYLMANDELIC ACID (VMA)	75 mL Urine - Plastic container. Aliquot from a well-mixed, 24-hour collection. Add 30 mL 6N HCl* to container at start of collection. Final pH should be <3.0. If necessary adjust pH to this level with 6N HCl*. Record total volume on both the specimen container and the test request form.	2.0-10.0 mg/24 hrs. (Spectrophotometry)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
		Dietary Restrictions: High doses of the following substances should be avoided: triamterene, octopamine, phenolic amines derived from dietary sources (fruit juices), and phenylpyruvic acid. The following drugs must be completely avoided: labetalol and methyldopa.	
0865	VARICELLA-ZOSTER VIRUS IgG ANTIBODY (VZV)	1 mL Serum - Plastic vial (1 spun barrier tube).	See laboratory report. (Enzyme Immunoassay)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
3122	VARICELLA-ZOSTER VIRUS ANTIGEN BY DFA	Vesicle swab, Nasopharyngeal (NP) Aspirate, NP swab or throat swab.	Direct Fluorescent Antibody Staining
	VARICELLA-ZOSTER VIRUS CULTURE	See Culture, Virus.	
0866	VASOACTIVE INTESTINAL POLYPEPTIDE (VIP)	Two aliquots of 1.5 mL Frozen EDTA Plasma (lavender top tube) - Plastic vial (spun barrier tube). Collect blood, mix, and chill in an ice bath immediately. Promptly separate the plasma using a refrigerated centrifuge. Aliquot at least 1.5 mL plasma to two separate vials and freeze on dry ice immediately.	0-70 pg/mL (Radioimmunoassay)
	VASOPRESSIN	See Antidiuretic Hormone.	
0867	VDRL CSF	1 mL CSF - Plastic.	Non-reactive. (Flocculation)
0868	SERUM	1 mL Serum - Plastic vial (1 spun barrier tube).	Non-reactive. (Flocculation)
	VERAPAMIL	See Calan®.	
	VESICULAR RASH EVALUATION	See Panels and Profiles section.	
	VIP	See Vasoactive Intestinal Polypeptide.	
	VIRAL ISOLATION	See Culture, Virus.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	VIRILIZATION PANEL	See Panels and Profiles section.	
	VIRUS IDENTIFICATION	See Culture, Virus.	
0869	VISCOSITY	3 mL Serum - Plastic vial (1 spun barrier tube).	1.5-1.9 Relative to water. (Viscometry)
0870	VITAMIN A	1 mL Frozen Serum - Plastic vial (1 spun barrier tube). Protect from light by wrapping in foil.	30-95 mcg/dL (High Pressure Liquid Chromatography)
	VITAMIN B1	See B1 Vitamin.	
	VITAMIN B2	See B2 Vitamin.	
0871	VITAMIN B6 (PYRIDOXAL-5-PHOSPHATE)	3 mL Frozen Heparinized Plasma - (green top tube) - Plastic vial (spun barrier tube). Protect from light by wrapping in foil.	5-24 ng/mL (High Pressure Liquid Chromatography)
	VITAMIN B12	See B12 Vitamin.	
	VITAMIN B12/FOLATE	See Megaloblastic Anemia Panel in Panels and Profiles section.	
	VITAMIN C	See Ascorbic Acid.	
0872	VITAMIN D (1, 25-DIHYDROXY)	5 mL Frozen Serum - Plastic vial (1 spun barrier tube). Specify Vitamin D, 1, 25-Dihydroxy.	20-76 pg/mL (Competitive Protein Binding)
0873	VITAMIN D (25-HYDROXY)	1 mL Serum - Plastic vial (1 spun barrier tube). Specify Vitamin D, 25-Hydroxy.	10-55 ng/mL (Competitive Protein Binding)
0874	VITAMIN E (ALPHA AND GAMMA TOCOPHEROL)	1 mL Frozen Serum - Amber plastic vial (1 spun barrier tube). Protect from light by wrapping in foil.	5-20 mcg/mL (Fluorometry)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	VIVACTIL®	See Protriptyline.	
	VLDL CHOLESTEROL	See Cholesterol, Very Low Density Lipoprotein.	
	VMA	See Vanillylmandelic Acid.	
	VOLATILES	See Panels and Profiles section.	
	von WILLEBRAND FACTOR ANTIGEN	See Coagulation Factor VIII, Related Antigen.	
	von WILLEBRAND MULTIMERIC ANALYSIS	See Coagulation Factor VIII, von Willebrand Multimeric Analysis.	
	WBC	See White Blood Cell Count.	
0875	WEIL FELIX AGGLUTINATION	1 mL Serum - Plastic vial (1 spun barrier tube).	<4-fold rise in titer in paired sera. (Agglutination)
	WELLNESS PROFILE #1	See Panels and Profiles section.	
	WESTERN EQUINE ENCEPHALITIS ANTIBODIES	See Arbovirus Antibody Panel.	
0876	WHITE BLOOD CELL COUNT	EDTA Whole Blood - 1 full lavender top tube.	3.8-10.1 thous/mcL (Flow Cytometry)
0877	WHITE BLOOD CELL COUNT AND DIFFERENTIAL	EDTA Whole Blood - 1 full lavender top tube and 2 Air-dried Blood Smears.	WBC: 3.8-10.1/mcl Differential: See laboratory report. (Flow Cytometry, Automated Cytochemistry and/or Microscopy)

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
	WOUND CULTURE	See Culture, Abscess or Culture, Lesion.	
	XYLOCAINE	See Lidocaine.	
0878	XYLOSE ABSORPTION PANEL	15 mL Urine - Plastic container. Aliquot from a well-mixed, 5-hour collection. Refrigerate during collection and prior to delivery to laboratory. If specimen is to be stored for some time, add NaF (10 mg per mL of urine) as a preservative. Record total volume for 5 hour collection, and the amount of D-Xylose administered, on both the specimen container and the test request form. Patient must be fasting before and during this test. And Fluoridated and Oxalated Blood - 1 full gray top tube. Collect one hour after administering D-Xylose.	<p><u>Adults</u></p> <p><u>25 g D-Xylose Dose</u></p> <p>5-hour Urine: 4.8-8.2 g (mean 6.5)</p> <p>1-hour Blood: 29-72 mg/dL (mean 45)</p> <p>2-hour Blood: 15-76 mg/dL (mean 45)</p> <p><u>5 g D-Xylose Dose</u></p> <p>5-hour Urine: 1.2-2.4 g (mean 1.8)</p> <p>1-hour Blood: 8-28 mg/dL (mean 15.7)</p> <p><u>Children</u></p> <p>5-hour Urine: 9-27%/5 hr (mean 18%)</p> <p>In children, D-Xylose excretion in a 5-hour urine is expressed as a percent of total dose because dosage varies with body weight.</p> <p>1-hour Blood: 15.8-39.8 mg/dL (mean 27.7) (Spectrophotometry)</p>
	YEAST CULTURE	See Culture, Fungus.	
	ZAROTIN®	See Ethosuximide.	

TEST NO.	TEST TYPE	REQUIREMENTS	REFERENCE RANGE & METHOD
0879	ZINC PLASMA	2 mL Heparinized Plasma (royal blue top trace metal tube) - Plastic vial (1 spun barrier tube). Collect in royal blue top trace metal tube containing heparin. Separate plasma from cells within 2 hours and transfer to plastic vial (spun barrier tube). Do not ship in collection tube; prolonged contact with rubber may elevate test results. Contact laboratory for royal blue top tubes and information on pediatric submissions.	60-130 mcg/dL (Atomic Absorption)
0880	URINE	25 mL Urine - Plastic container. Aliquot of well-mixed, 24-hour collection. Add 20 mL 6N HCl* to container at start of collection. Record total volume on both the specimen container and the test request form.	150-1250 mcg/24 hrs. (Atomic Absorption)
		*Prepare by diluting concentrated HCl with an equal volume of water.	
	ZINC PROTOPORPHYRIN	See Protoporphyrin, Zinc.	
	ZIPAN-25	See Phenothiazines.	
	ZIPAN-50	See Phenothiazines.	
	Zn	See Zinc.	
	ZPP	See Protoporphyrin, Zinc.	