PANELS/PROFILES

HNL offers groups of tests defined as panels by the American Medical Association Current Procedural Terminology (CPT), as well as profiles based on acceptable clinical practice.

The following are the more commonly ordered Panels/Profiles. Additional Panels/Profiles offered by HNL can be found in the Alphabetical Test Listing section. The Office of Inspector General (OIG) of the United States Department of Health and Human Services has addressed the offering of customized profiles in their Model Compliance Plan for Laboratories. The plan stresses the importance of clear communication between laboratories and ordering physicians regarding information involving payment ramifications for ordering tests in profiles rather than on an individual test basis.

If you use HNL customized packages, a Custom Package Acknowledgement Form which addresses items such as the profile components, Medicare reimbursement amounts, and medical necessity, will be sent to you for your review and signature on an annual basis. All components of AMA panels and HNL profiles may also be ordered individually.

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Test Name **Adenovirus Antibody**	*Order Code* **ADVAB**
Includes:	Total Adenovirus Anitibody
Suggest CPT coding:	86603
Methodology:	Complement Fixation
Testing Schedule:	Routine, Monday-Friday no holidays
Report Available:	3-5 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	<1:8
Clinical Utility:	Useful for diagnosis of Adenovirus Infections. Single titers > 1:64 are indicative of recent or current infection. Titers of 1:8-1:32 may be indicative of either past or recent infection, since CF antibody levels persist for only a few months. A four-fold or greater increase in titer between acute and convalescent specimens confirms the diagnosis.

Test Name **Allergen Profile, Asthma**	*Order Code* **ASMPR**
Includes:	Total IgE along with the following specific IgE allergens: • Molds: Alternaria alternata, Aspergillus fumigatus, Candida albicans, Cladosporium herbarium, Mucor racemosus • Miscellaneous: Cat dander, Dog dander, Cockroach, Common ragweed, Timothy grass, Oak, House dust mites: D. farinae and D. pteronyssius
Suggest CPT coding:	82785,86003(x13)
Methodology:	ImmunoCAP (FEIA)
Testing Schedule:	Routine, 4-6 times per week
Report Available:	3-7 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	• Total IgE: **See** individual test listing • Specific IgE Allergens: **See** order code ALKIT
Critical Values:	Allergen specific IgE levels (kU/L) provide 95% Positive Predictive Values (PPV) for clinical reactivity to the specific allergen challenge.

Test Name **Allergen Profile, Atopic Dermatitis**	*Order Code* **ADMPR**
Includes:	Total IgE along with the following specific IgE allergens: • Foods: Egg white, Fish (Cod), Milk, Peanut, Soybean, Wheat • Miscellaneous: Cat dander, Alternaria alternata, House dust mite (D. farinae), Common ragweed, Timothy grass, Oak, Staphylococcal Enterotoxins A and B.
Suggest CPT coding:	82785,86003(x14)
Methodology:	ImmunoCAP (FEIA)
Testing Schedule:	Routine, 4-6 times per week

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Test Name	*Order Code*
Allergen Profile, Atopic Dermatitis	**ADMPR**
Report Available:	3-7 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	• Total IgE: **See** individual test listing • Specific IgE Allergens: **See** order code ALKIT
Clinical Utility:	Allergen specific IgE levels (kU/L) provide 95% Positive Predictive Values (PPV) for clinical reactivity to the specific allergen challenge.

Test Name	*Order Code*
Allergen Profile, Food, Basic	**FODPR**
Alternate Name:	Food Allergen Profile, Basic
Includes:	Total IgE along with the following specific IgE allergens: • Chicken, Clam, Corn (Maize), Egg White, Fish (Cod), Milk, Peanut, Shrimp, Soybean, Tomato, Walnut, Wheat
Suggest CPT coding:	82785,86003(x12)
Methodology:	ImmunoCAP (FEIA)
Testing Schedule:	Routine, 4-6 times per week
Report Available:	3-5 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	• Total IgE: **See** individual test listing • Specific IgE Allergens: **See** order code ALKIT
Clinical Utility:	Allergen specific IgE levels (kU/L) provide 95% Positive Predictive Values (PPV) for clinical reactivity to the specific allergen challenge.

Test Name	*Order Code*
Allergen Profile, Food, Nut	**NUTPR**
Alternate Name:	Food Allergen Profile, Nut
Includes:	Total IgE along with the following specific IgE allergens: • Almond, Brazilnut, Cashew, Hazelnut, Peanut, Pecan, Pistachio, Walnut
Suggest CPT coding:	82785,86003(x8)
Methodology:	ImmunoCAP (FEIA)
Testing Schedule:	Routine, 4-6 times per week
Report Available:	3-5 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	• Total IgE: **See** individual test listing • Specific IgE Allergens: **See** order code ALKIT

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Test Name	*Order Code*
Allergen Profile, Food, Nut	**NUTPR**

Clinical Utility:	Allergen specific IgE levels (kU/L) provide 95% Positive Predictive Values (PPV) for clinical reactivity to the specific allergen challenge.

Test Name	*Order Code*
Allergen Profile, Food, Shellfish	**SHLPR**

Includes:	Total IgE along with the following specific IgE allergens: • Blue Mussel, Clam, Crab, Fish (Cod), Lobster, Scallop, Shrimp, Tuna
Suggest CPT coding:	82785,86003(x8)
Methodology:	ImmunoCAP (FEIA)
Testing Schedule:	Routine, 4-6 times per week
Report Available:	3-5 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	• Total IgE: **See** individual test listing • Specific IgE Allergens: **See** order code ALKIT
Clinical Utility:	Allergen specific IgE levels (kU/L) provide 95% Positive Predictive Values (PPV) for clinical reactivity to the specific allergen challenge.

Test Name	*Order Code*
Allergen Profile, Otitis Media	**OTMPR**

Includes:	Total IgE along with the following specific IgE allergens: • Foods: Chicken, Corn (Maize), Egg White, Fish (Cod), Milk, Peanut, Soybean, Tomato, Wheat • Miscellaneous: Cat dander, Alternaria alternata, House dust mite (D. farinae), Common ragweed, Timothy grass, Oak
Suggest CPT coding:	82785,86003(x15)
Methodology:	ImmunoCAP (FEIA)
Testing Schedule:	Routine, 4-6 times per week
Report Available:	3-5 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	• Total IgE: **See** individual test listing • Specific IgE Allergens: **See** order code ALKIT
Clinical Utility:	Allergen specific IgE levels (kU/L) provide 95% Positive Predictive Values (PPV) for clinical reactivity to the specific allergen challenge.

Test Name	*Order Code*
Allergen Profile, Venom	**VENPR**

Includes:	Total IgE along with the following specific IgE allergens: • Common Wasp/Yellow Jacket, European Hornet, Honey Bee, Paper Wasp, Yellow Hornet, White faced Hornet
Suggest CPT coding:	82785,86003(x6)
Methodology:	ImmunoCAP (FEIA)

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Test Name **Allergen Profile, Venom**	*Order Code* **VENPR**
Testing Schedule:	Routine, 4-6 times per week
Report Available:	3-5 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	• Total IgE: **See** individual test listing • Specific IgE Allergens: **See** order code ALKIT
Clinical Utility:	Allergen specific IgE levels (kU/L) provide 95% Positive Predictive Values (PPV) for clinical reactivity to the specific allergen challenge.

Test Name **Antinuclear Antibody Profile, Comprehensive**	*Order Code* **ANAP**
Includes:	• Antinuclear Antibody Screen (ANA) • DNA Autoantibody, Double Stranded • SS-A Autoantibody • SS-B Autoantibody • Sm\RNP Autoantibody • Sm Autoantibody • Scl-70 Autoantibody • Reflexed when appropriate: • Titer and pattern
Suggest CPT coding:	86038,86225,86235(x5)
Methodology:	**See** individual test listings
Testing Schedule:	Routine, 2 times per week
Report Available:	4-7 days
Minimum Volume:	2 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	**DO NOT** confuse with Antinuclear Antibody Screen (ANA).
Reference Range:	**See** individual test listings
Clinical Utility:	Comprehensive profile for initial evaluation of connective tissue disorders.

Test Name **Ashkenazi Jewish Profile**	*Order Code* **JEWMP**
Includes:	• Canavan Disease Mutation Analysis • Cystic Fibrosis Mutation Analysis • Familial Dysautonomia Mutation Analysis • Tay Sachs Enzyme Screen • Tay Sachs Mutation DNA
Suggest CPT coding:	81200,81220,81255,81260,83080
Methodology:	Fluorometric Enzymatic Assay and Polymerase Chain Reaction (PCR)
Testing Schedule:	Routine, Monday-Friday no holidays
Report Available:	12-18 days
Minimum Volume:	30 mL whole blood
Container:	3 Yellow top tubes, ACD Solution A

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Test Name **Ashkenazi Jewish Profile**	*Order Code* **JEWMP**
Collection:	Collect Monday–Friday ONLY before 1400, no holidays.
Special Instructions and/or Comments:	• Specimens must arrive in the laboratory before 1600. • Store as whole blood in original tube at room temperature. • Must provide patient's ethnic background, family history, and diagnosis on Requisition Form.
Reference Range:	**See** Patient Report
Clinical Utility:	Individuals identified as or descended from Ashkenazi (eastern European) Jews are at increased risk for many autosomal recessive genetic diseases. Carrier screening is useful to identify couples who, if both are carriers of one of these diseases, have a 1 in 4 chance of transmitting these diseases to their children.

Test Name **Bacterial Antigen Profile**	*Order Code* **BACG**
Alternate Name:	• Bactigen Profile • Group B Strep Antigen, CSF • H, influezae Type b antigen, CSF • Neisseria meningitides Antigen • Strep pneumoniae Antigen
Includes:	• Haemophilus influenzae Type ß Antigen Detection • Neisseria menigitidis Antigen Detection (Groups A/Y and C/W135) • Group B/ E. coli K1 Ag • Streptococus Group B, Antigen Detection • Streptococcus pneumoniae Antigen Detection
Suggest CPT coding:	86403(x5)
Methodology:	Latex Agglutination
Testing Schedule:	Routine, daily
Report Available:	3–5 days
Minimum Volume:	2 mL cerebrospinal fluid
Container:	Sterile conical tube
Reference Range:	Negative
Clinical Utility:	An aid for the diagnosis of bacterial meningitis

Test Name **Basic Metabolic Panel**	*Order Code* **BMP**
Includes:	• Calcium • Carbon dioxide (CO2) • Chloride • Creatinine • Glucose • Potassium • Sodium • Urea nitrogen (BUN) • Anion Gap Calculation • Glomerular Filtration Rate Calculation (GFR)
Suggest CPT coding:	80048
Methodology:	**See** individual test listings
Testing Schedule:	Routine daily, STAT testing available

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Test Name **Basic Metabolic Panel**	*Order Code* **BMP**
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listings.
Critical Values:	**See** individual test listings.
Clinical Utility:	Used to evaluate blood glucose; electrolyte, fluid and acid base balances, and kidney function.

Test Name **Cardiolipin Autoantibody Profile**	*Order Code* **ACRD**
Includes:	IgG, IgA and IgM Cardiolipin Autoantibodies
Suggest CPT coding:	86147(x3)
Methodology:	Enzyme-Linked Immunosorbent Assay (ELISA)
Testing Schedule:	Routine, 1 time per week
Report Available:	5-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	Cardiolipin IgG: <15 GPL U/mL Cardiolipin IgA: <12 APL U/mL Cardiolipin IgM: <12.5 MPL U/mL
Clinical Utility:	Elevated levels are seen either transiently in some infectious diseases or more persistently in autoimmune diseases, such as SLE and APS. Anticardiolipin antibodies have also been associated with fetal loss, endocarditis, cardiovascular disease, and hemolytic anemia. Testing is best utilized when performed in parallel with a Beta-2-Glycoprotein-1 Antibody Profile.

Test Name **CD4/CD8 Profile**	*Order Code* **CD4PR**
Alternate Name:	• CD4/CD8 • Helper/Suppressor Ratio • Flow Cytometry
Includes:	• CD45 Total Lymph Count • Absolute and % T cells (CD3) • Absolute and % Helper cells (CD4) • Absolute and % suppressor cells (CD8) • Helper/Suppressor Ratio
Suggest CPT coding:	86359,86360
Methodology:	Flow Cytometry
Testing Schedule:	Routine, Monday- Friday no holidays
Report Available:	2-4 days
Minimum Volume:	3 mL whole blood
Container:	Lavender top tube, EDTA

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Test Name **CD4/CD8 Profile**	*Order Code* **CD4PR**
Special Instructions and/or Comments:	• Store as whole blood in original tube at room temperature. • The Department of Health requires mandatory reporting of any abnormal CD4 result.
Reference Range:	See Patient Report
Clinical Utility:	Quantitates as a percentage and as an absolute count the CD4 Helper T-lymphocyte population, the CD8 Supressor T-lymphocyte population, the CD3 total T-lymphocyte population and the total lymphocyte count.

Test Name **Chlamydia Antibody Profile**	*Order Code* **CHLAB**
Includes:	• Chlamydia pneumoniae IgG and IgM antibodies • Chlamydia psittaci IgG and IgM antibodies • Chlamydia trachomatis IgG and IgM antibodies
Suggest CPT coding:	86631(x3),86632(x3)
Methodology:	Micro-immunofluorescent Antibody Assay (MIF)
Testing Schedule:	Routine, Monday-Saturday
Report Available:	5-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate
Reference Range:	For each constituent IgG: <1:64 IgM: <1:10
Clinical Utility:	Useful as an aid in the clinical diagnosis of chlamydial infections.

Test Name **CK, Total and MB**	*Order Code* **CKIMB**
Includes:	• CK, Total • MCKMB (Mass CK-MB Fraction) • Relative Index
Suggest CPT coding:	82550,82553
Methodology:	Multiple-point Rate and Direct Chemiluminescence
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Collection:	Collect specimen at onset of symptoms to establish baseline values.
Special Instructions and/or Comments:	• CK-MB usually peaks 15-20 hours after the onset of a myocardial infarction. • Testing must be performed within 4 hours of collection. • If delay in testing, centrifuge, transfer to plastic aliquot tube and refrigerate for up to 48 hours.

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Test Name	*Order Code*
CK, Total and MB	**CKIMB**

Reference Range:

CK, Total:	Refer to order code CK
CK-MB:(Healthy, non-hospitalized):	< 5.0 ng/mL
Relative Index:	< 2.5%

Clinical Utility: Used in the evaluation of myocardial infarction.

Test Name	*Order Code*
Comprehensive Metabolic Panel, Neonatal	**NCPMP**

Includes:

- Alanine Aminotransferase (ALT)
- Albumin
- Alkaline Phosphatase
- Aspartate Aminotransferase (AST)
- Calcium
- Carbon dioxide (CO2)
- Bilirubin, Total Neonatal
- Chloride
- Creatinine
- Glucose
- Potassium
- Protein, Total
- Sodium
- Urea nitrogen (BUN)
- Anion Gap Calculation

Suggest CPT coding: 80053

Methodology: **See** individual test listings

Testing Schedule: Routine daily, STAT testing available

Report Available: 1 day

Minimum Volume: 1 mL serum

Container: Gold top tube, serum separator

Reference Range: **See** individual test listings

Critical Values: **See** individual test listings

Clinical Utility: Used as a general organ/system survey and to establish baseline values.

Test Name **Comprehensive Metabolic Panel**	*Order Code* **CPMP**
Includes:	• Alanine Aminotransferase (ALT) • Albumin • Alkaline phosphatase • Aspartate Aminotransferase (AST) • Calcium • Carbon dioxide (CO2) • Bilirubin, Total • Chloride • Creatinine • Glucose • Potassium • Protein, Total • Sodium • Urea nitrogen (BUN) • Anion Gap Calculation • Glomerular Filtration Rate Calculation (GFR)
Suggest CPT coding:	80053
Methodology:	**See** individual test listings
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listings
Critical Values:	**See** individual test listings
Clinical Utility:	Used as a general organ/system survey and to establish baseline values.

Test Name **Coxsackie A Antibody Profile**	*Order Code* **COXAP**
Includes:	Antibodies to each of the following: • Coxsackie A2, A4, A7, A9, A10, and A16
Suggest CPT coding:	86658(x6)
Methodology:	Complement Fixation
Testing Schedule:	Routine Monday-Friday, no holidays
Report Available:	3-5 days
Minimum Volume:	2 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliqot tube and refrigerate
Reference Range:	<1:8 Interpretation < 1:8 — Antibody NOT Detected ≥ 1:8 — Antibody Detected

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Test Name	*Order Code*
Coxsackie A Antibody Profile	**COXAP**

Clinical Utility:	This profile tests against A-2, 4, 7, 9, 10, and 16 antigens. Although cross reactivity exists among the enteroviruses by complement fixation, most healthy people do not have titers ≥ 1:8. Therefore, detectable titers, especially those ≥ 1:32, should be considered a positive identification. Confirmation is made by demonstration of a fourfold change in titers between acute and convalescent sera. Single titers of ≥ 1:32 are indicative of recent infection. Titers of 1:8 or 1:16 may be indicative of either past or recent infection, since CF antibody levels persist for only a few months. A four-fold or greater increase in titer between acute and convalescent specimens confirms the diagnosis. There is considerable cross reactivity among enteroviruses; however, the highest titer is usually associated with the infecting serotype.

Test Name	*Order Code*
Coxsackie B Antibody Profile	**CXVB**

Includes:	Antibodies to each of the following: • Coxsackie B1, B2, qa B3, B4, B5, and B6
Suggest CPT coding:	86658(x6)
Methodology:	Complement Fixation
Testing Schedule:	Routine, Monday-Friday no holidays
Report Available:	3-5 days
Minimum Volume:	2 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	< 1:8 Interpretation <1:8 — Antibody NOT Detected ≥1:8 — Antibody Detected
Clinical Utility:	This profile includes testing against the 6 immunotypes of Coxsackie B viruses. Although there is cross reactivity among the enteroviruses by complement fixation, most healthy people do not have titers ≥ 1:8. Therefore detectable titers, especially those≥ 1:32, should be considered a positive identification. Confirmation is made by demonstration of a fourfold change in titers between acute and convalescent sera.

Test Name	*Order Code*
Cytomegalovirus Antibody Profile	**CMVP**

Includes:	CMV IgG and IgM antibodies
Suggest CPT coding:	86644,86645
Methodology:	Enzyme-Linked Immunosorbent Assay (ELISA)
Testing Schedule:	Routine, 1-2 times per week
Report Available:	4-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator

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Test Name	*Order Code*
Cytomegalovirus Antibody Profile	**CMVP**

Reference Range:	**See** individual test listings.
Clinical Utility:	Supports the serodiagnosis of CMV infection.

Test Name	*Order Code*
Disseminated Intravascular Coagulation Profile	**DIC**

Includes:	• Fibrinogen • Platelet Count • D-Dimer, Quantitative
Suggest CPT coding:	85379, 85384 (note: Platelet Count CPT 85049 will be charged separately if CBC not included in order)
Methodology:	**See** individual test listings
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	1 mL citrated plasma AND 1 mL EDTA whole blood
Container:	1 Full Light Blue top tube, sodium citrate AND 1 Lavender top tube, EDTA
Collection:	**See** Special handling instructions for "Coagulation Studies", listed under Specimen Collection, Preparation, and Handling Section
Reference Range:	**See** Individual Test Listings
Critical Values:	**See** Individual Test Listings
Clinical Utility:	Used in the evaluation of DIC, including abnormalities in platelet count, fibrinogen, fibrin split products, and fibrinolytic activity.

Test Name	*Order Code*
Drug Screen 5, Urine with Confirmation, Forensic	**IM5**

Includes: Screen for the following classes of drugs:

Class	Cutoff Concentration
Amphetamines	500 ng/mL
Cannabinoids	50 ng/mL
Cocaine	150 ng/mL
Opiates	2000 ng/mL
Phencyclidine	25 ng/mL

Testing also includes specimen validity tests to check for specimen integrity and adulteration. Confirmation of positive screen results by Gas Chromatography-Mass Spectrometry (GC/MS) or Liquid Chromatography-Tandem Mass Spectrometry (LC/MS/MS) .

Suggest CPT coding:	80101(X5)
Methodology:	Immunoassay (IA)
Testing Schedule:	Routine, Monday-Friday
Report Available:	1-3 business days
Minimum Volume:	10 mL urine
Container:	Plastic urine container with temperature strip
Collection:	• Use protocol for collection of forensic specimens to include Chain-of-Custody Form. • Submit sealed urine with a Chain-of-Custody (HNL- 53) Form in a sealed evidence bag.

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Test Name	*Order Code*
Drug Screen 5, Urine with Confirmation, Forensic	**IM5**

Special Instructions and/or Comments:	• Forensic collection protocol must be followed. • Drug Testing Request/Chain-of-Custody Form must be submitted with specimen. • This test is intended for Forensic and Employment related drug testing.
Reference Range:	Negative
Clinical Utility:	Useful for detecting drug abuse.

Test Name	*Order Code*
Drug Screen 5, Urine without Confirmation	**DOA5**

Includes: Screen for the following classes of drugs:

Class	Cutoff Concentration
Amphetamines	500 ng/mL
Cannabinoids	50 ng/mL
Cocaine	150 ng/mL
Opiates	300 ng/mL
Phencyclidine	25 ng/mL

NOTE: This is a Presumptive test. Confirmation testing is not performed.

Suggest CPT coding:	80101(x4),80101
Methodology:	Immunoassay (IA)
Testing Schedule:	Routine, daily
Report Available:	1 day
Minimum Volume:	5 mL urine
Container:	Plastic urine container
Special Instructions and/or Comments:	• Chain-of-Custody Form optional • This is a presumptive test and not intended for employment-related testing. • Confirmation testing may be requested/added up to 2 weeks after reporting of initial results. • **NOTE**: Positive samples are only retained for 2 weeks.
Reference Range:	Negative
Clinical Utility:	Useful for detecting drug abuse.

Test Name	*Order Code*
Drug Screen 7, Urine with Confirmation, Forensic	**IM7**

Includes: Screen for the following classes of drugs:

Class	Cutoff Concentration
Amphetamines	500 ng/ml
Barbiturates	200 ng/ml
Benzodiazepines	200 ng/ml
Cannabinoids	50 ng/ml
Cocaine	150 ng/ml
Opiates	300 ng/ml
Phencyclidine	25 ng/ml

Testing also includes specimen validity tests to check for specimen integrity and adulteration. Confirmation of positive screen results byGas Chromatography-Mass Spectrometry(GC/MS) or Liquid Chromatography-Tandem Mass Spectrometry (LC/MS/MS) .

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Test Name	*Order Code*
Drug Screen 7, Urine with Confirmation, Forensic	**IM7**

Suggest CPT coding:	80101(x7)
Methodology:	Immunoassay (IA)
Testing Schedule:	Routine, Monday-Friday
Report Available:	3-5 days
Minimum Volume:	10 mL urine
Container:	Plastic urine container with temperature strip
Collection:	• Use protocol for collection of forensic specimens to include Chain-of-Custody Form. • Seal urine with evidence tape and place with Chain-of- Custody Form in a sealed evidence bag.
Special Instructions and/or Comments:	• Chain-of-Custody procedures must be followed to ensure specimen integrity. • Submit specimen with a completed Drug Testing Request/Chain-of-Custody (HNL-53) Form. • This test is intended for Forensic and Employment related drug testing.
Reference Range:	Negative
Clinical Utility:	Useful for detecting drug abuse.

Test Name	*Order Code*
Drug Screen 7, Urine without Confirmation	**DOA7**

Includes: Screen for the following classes of drugs:

Class	Cutoff Concentration
Amphetamines	500 ng/mL
Barbiturates	200 ng/mL
Benzodiazepines	200 ng/mL
Cannabinoids	50 ng/mL
Cocaine	150 ng/mL
Opiates	300 ng/mL
Phencyclidine	25 ng/mL

NOTE: Presumptive positive only. Confirmation testing is not performed.

Suggest CPT coding:	80101(x7)
Methodology:	Immunoassay (IA)
Testing Schedule:	Routine, daily
Report Available:	1 day
Minimum Volume:	2 mL urine
Container:	Plastic urine container or tube
Special Instructions and/or Comments:	• Chain-of-Custody Form optional • This is a presumptive test and not intended for employment-related testing. • Confirmation testing may be requested/added up to 2 weeks after reporting of initial results. • **NOTE**: Positive samples are only retained for 2 weeks.
Reference Range:	Negative
Clinical Utility:	Useful for detecting drug abuse.

Test Name	*Order Code*
Drug Screen 9, Urine with Confirmation, Forensic	**IMDS**

Includes:

Screen for the following classes of drugs:

Class	Cutoff Concentration
Amphetamines	500 ng/mL
Barbiturates	200 ng/mL
Benzodiazepines	200 ng/mL
Cannabinoids	50 ng/mL
Cocaine	150 ng/mL
Methadone	300 ng/mL
Opiates	2000 ng/mL
Phencyclidine	25 ng/mL
Propoxyphene	300 ng/mL

Testing also includes specimen validity tests to check for specimen integrity and adulteration. Confirmation of positive screen results by Gas Chromatography-Mass Spectrometry (GC/MS) or Liquid Chromatography-Tandem Mass Spectrometry (LC/MS/MS).

Suggest CPT coding:	(80101x9)
Methodology:	Immunoassay (IA)
Testing Schedule:	Routine, Monday-Friday
Report Available:	1-3 business days
Minimum Volume:	10 mL urine
Container:	Plastic urine container with temperature strip
Collection:	• Use protocol for collection of forensic specimens to include Chain-of-Custody Form. • Seal urine with evidence tape and place with Chain-of-Custody Form in a sealed evidence bag.
Special Instructions and/or Comments:	• Chain-of-Custody procedures must be followed to ensure specimen integrity. • Submit specimen with a completed Drug Testing Request/Chain-of-Custody (HNL-53) Form. • This test is intended for forensic and employment-related drug testing.
Reference Range:	Negative
Clinical Utility:	Useful for detecting drug abuse.

Test Name	*Order Code*
Drug Screen 9, Urine without Confirmation	**DOA9**

Includes:

Screen for the following classes of drugs:

Class	Cutoff Concentration
Amphetamines	500 ng/mL
Barbiturates	200 ng/mL
Benzodiazepines	200 ng/mL
Cannabinoids	50 ng/mL
Cocaine	150 ng/mL
Methadone	300 ng/mL
Opiates	300 ng/mL
Phencyclidine	25 ng/mL
Propoxyphene	300 ng/mL

NOTE: Presumptive positive only. Confirmation testing is not performed.

Suggest CPT coding:	80101(x9)

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Test Name **Drug Screen 9, Urine without Confirmation**	*Order Code* **DOA9**
Methodology:	Immunoassay (IA)
Testing Schedule:	Routine, daily
Report Available:	1 day
Minimum Volume:	2 mL urine
Container:	Plastic urine container
Special Instructions and/or Comments:	• Chain-of-Custody Form optional • This is a presumptive test and not intended for employment-related testing. • Confirmation testing may be requested/added up to 2 weeks after reporting of initial results. • **NOTE**: Positive samples are only retained for 2 weeks.
Reference Range:	Negative
Clinical Utility:	Useful for detecting drug abuse.

Test Name **ECHO virus Antibody Profile**	*Order Code* **ECHAP**
Includes:	Antibodies to each of the following: ECHO virus 4, 7, 9, 11, and 30
Suggest CPT coding:	86658(x5)
Methodology:	Complement Fixation
Testing Schedule:	Routine, Monday-Friday no holidays
Report Available:	2-4 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	<1:8 **NOTE**: Compare acute and convalescent titers for greatest diagnostic value. A fourfold or greater increase in titer between acute and convalescent specimens confirms the diagnosis of recent infection.
Clinical Utility:	Single titers ≥ 1:32 are indicative of recent infection. Titers of 1:8 or 1:16 may be indicative of either past or recent infection, since CF antibody levels persist for only a few months. There is considerable crossreactivity among enteroviruses; however, the highest titer is usually associated with the infecting serotype.

Test Name **Ehrlichia Antibody Profile**	*Order Code* **EHCP**
Alternate Name:	Ehrlichia chaffeensis (HME) and Anaplasma phagocytophilia (HGE) IgG and IgM antibodies
Includes:	IgG and IgM Antibodies to each of the following: • Ehrlichia chaffeensis (HME) • Anaplasma phagocytophilia (previously known as Ehrlichia equi) (HGE)
Suggest CPT coding:	86666(x4)
Methodology:	Indirect Fluorescent Antibody (IFA)
Testing Schedule:	Routine, 2 times per week
Report Available:	3-5 days
Minimum Volume:	1 mL serum

Continued...

Test Name **Ehrlichia Antibody Profile**	*Order Code* **EHCP**
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	

Ehrlichia chaffeensis (HME)	
Both IgG and IgM:	<1:40
Anaplasma phagocytophilia (HGE)	
IgG:	<1:80
IgM:	<1:20

Clinical Utility:	Detectable IgM levels generally rise 3 to 5 days post infection or 24 hours after the initial onset of fever, falling again to undetectable levels in about 30 to 60 days. IgG levels often are detectable 7 to 10 days post-infection, peaking at about 14 to 21 days and persisting for approximately 1 year

Test Name **Electrolytes, Serum**	*Order Code* **ELEC**
Alternate Name:	• Lytes, Blood • Plasma Electrolytes • Serum Electrolytes
Includes:	• Sodium • Potassium • Chloride • Carbon dioxide (CO2) • Anion Gap Calculation
Suggest CPT coding:	80051
Methodology:	See individual test listings
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	See individual test listings
Critical Values:	See individual test listings
Clinical Utility:	Used to evaluate electrolyte and acid/base balance.

Test Name **Enterovirus Antibody Profile**	*Order Code* **ENTAP**
Includes:	Antibodies to each of the following: • Coxsackie A Virus: A2, A4, A7, A9, A10, A16 • Coxsackie B Virus: B1, B2, B3, B4, B5, B6 • ECHO Virus: 4, 7, 9, 11, 30 • Poliovirus: 1, 2, and 3
Suggest CPT coding:	86658(x20)
Methodology:	Complement Fixation
Testing Schedule:	Routine, 1 time per week

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Test Name **Enterovirus Antibody Profile**	*Order Code* **ENTAP**
Report Available:	7-10 days
Minimum Volume:	3 mL serum
Container:	2 Gold top tubes, serum separator
Special Instructions and/or Comments:	Centrifuge specimens, transfer serum to aliquot tube and refrigerate.
Reference Range:	<1:8 **NOTE**: Compare acute and convalescent titers for greatest diagnostic value. A fourfold or greater increase in titer between acute and convalescent specimens confirms the diagnosis of recent infection.
Clinical Utility:	Single titers ≥1:32 are indicative of recent infection. Titers of 1:8 and 1:16 may be indicative of either past or recent infection, since CF antibody levels persist for only a few months. There is considerable cross reactivity among enteroviruses; however, the highest titer is usually associated with the infecting serotype.

Test Name **Epstein Barr Virus Antibody Profile**	*Order Code* **EBVP**
Alternate Name:	• EBV Antibody • EBV Antibody Panel • EBV IgG/IgM • EBV Serology • EBV Titers
Includes:	• VCA IgG Antibody • VCA IgM Antibody • Antibody to Early Antigen • Antibody to EBNA • Interpretation
Suggest CPT coding:	86663,86664,86665(x2)
Methodology:	Enzyme-Linked Immunosorbent Assay (ELISA)
Testing Schedule:	Routine, 2 times per week
Report Available:	3-7 days
Minimum Volume:	2 mL serum
Container:	Gold top tube, serum separator
Reference Range:	≤ 0.90
Clinical Utility:	Primary EBV infection is shown with IgM-VCA appearing first, accompanied by rising IgG-VCA antibody levels and the appearance of antibody to Early Antigen. If both IgG-VCA and EBNA antibodies are present, past infection is indicated.

Test Name **Heparin Resistance Profile**	*Order Code* **HPRP**
Includes:	• Antithrombin III Activity • Factor VIII Activity • Fibrinogen • Heparin Level, Unfractionated • Partial Thromboplastin Time, Activated (APTT)
Suggest CPT coding:	85240,85300,85384,85520,85730

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Test Name **Heparin Resistance Profile**	*Order Code* **HPRP**
Methodology:	**See** individual test listings
Testing Schedule:	Routine, 1 time per week
Report Available:	5–7 days (individual components resulted as performed)
Minimum Volume:	2 mL prepared "platelet poor plasma" split equally into 4 plastic aliquot tubes and **FROZEN** immediately
Container:	4 Full Light Blue top tubes, sodium citrate
Collection:	**See** Special Handling Instructions for "Coagulation Studies", listed under Specimen Collection, Preparation, and Handling Section
Special Instructions and/or Comments:	• Testing is contraindicated for patients on Heparin or Coumadin therapy. • Preparation and submission of "platelet poor plasma" is critical for accurate test performance and interpretation.
Reference Range:	**See** individual test listings.
Critical Values:	**See** order codes FIBR, HEPL and PTT

Test Name **Hepatitis B Profile**	*Order Code* **HBP**
Includes:	• Hepatitis B Surface Antigen (HbsAg) • Hepatitis B Surface Antibody (HbsAb) • Hepatitis B Core Antibody, Total (HbcAb, Total) • Hepatitis B Core Antibody, IgM (HbcAb, IgM) • Interpretation of results • Reflexed when appropriate: Hepatitis B Surface Antigen Neutralization
Suggest CPT coding:	86704,86705,86706,87340
Methodology:	Chemiluminescent Microparticle Enzyme Immunoassay (CMIA)
Testing Schedule:	Routine, 6 times per week
Report Available:	1–3 days
Minimum Volume:	3 mL serum
Container:	2 Gold top tubes, serum separator
Special Instructions and/or Comments:	The Department of Health requires mandatory reporting of a confirmed positive HBsAg or a positive HbcAb IgM result.
Reference Range:	**See** individual test listings
Clinical Utility:	Differential diagnosis of Hepatitis and stage Hepatitis B infection. IgM antibody to Hepatitis B core antigen is a reliable marker for acute Hepatitis B viral infection. Presence of Hepatitis B surface antibody is an indicator of clinical recovery and subsequent immunity to Hepatitis B virus. This test is useful for evaluation of possible immunity in individuals who are at increased risk for exposure to Hepatitis B, ie., hemodialysis unit personnel, venipuncturists, etc. Evaluation of the need for hepatitis B immune globulin after needlestick injury. Evaluation of the need for Hepatitis B vaccine, and to follow immune status after hepatitis B vaccine. Hepatitis B surface antigen is the earliest indicator of the presence of acute infection and is also indicative of chronic infection.

Test Name **Hepatitis C Antibody Profile**	*Order Code* **HCP**
Includes:	• Hepatitis C (HCV) Antibody Screen • Reflexed when appropriate: HCV PCR
Suggest CPT coding:	86803
Methodology:	Chemiluminescent Microparticle Enzyme Immunoassay (CMIA) and RNA Quantitation by PCR
Testing Schedule:	Routine, 5 times per week
Report Available:	2–4 days
Minimum Volume:	4 mL serum
Container:	2 Gold top tubes, serum separator
Special Instructions and/or Comments:	The Department of Health requires mandatory reporting of any confirmed positive result.
Reference Range:	Negative: No antibody detected.
Clinical Utility:	Assess exposure to hepatitis C virus. HCV antibodies are typically not detected until approximately 14 weeks after exposure (or 5 weeks after appearance of the first biochemical marker of illness); absence of these antibodies after this period is strong evidence against HCV infection.

Test Name **Hepatitis Panel, Acute**	*Order Code* **AHEP**
Includes:	• Hepatitis A Antibody, IgM (HAV Ab, IgM) • Hepatitis B Surface Antigen (HbsAg) • Hepatitis B Core Antibody, IgM (HbcAb, IgM) • Hepatitis C (HCV) Antibody Screen • Interpretation of results • Reflexed when appropriate: Hepatitis B Surface Antigen Neutralization HCV PCR
Suggest CPT coding:	80074
Methodology:	Chemiluminescent Microparticle Enzyme Immunoassay (CMIA)
Testing Schedule:	Routine, 6 times per week
Report Available:	3–7 days
Minimum Volume:	3 mL serum
Container:	2 Gold top tubes, serum separator
Reference Range:	**See** individual test listings.
Clinical Utility:	Comprehensive assessment of suspected hepatitis A and B and C infection in at-risk patients.

Test Name **Herpes Simplex Virus IgG Antibody Profile**	*Order Code* **HSVGP**
Includes:	HSV-1 and HSV-2 IgG type specific antibodies
Suggest CPT coding:	86695,86696
Methodology:	Enzyme-Linked Immunosorbent Assay (ELISA)
Testing Schedule:	Routine, 1–2 times per week
Report Available:	4–7 days
Minimum Volume:	1 mL serum

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Test Name **Herpes Simplex Virus IgG Antibody Profile**	*Order Code* **HSVGP**
Container:	Gold top tube, serum separator
Reference Range:	≤ 0.90 Ab index
Clinical Utility:	Herpes Simplex produces several different conditions in man, most often occurring at the oral mucocutaneous junction with the formation of cold sores. This test code provides differentiation of Type 1 or Type 2 Herpes.

Test Name **Herpes Simplex Virus IgM Antibody Profile**	*Order Code* **HSVMB**
Includes:	HSV-1 and HSV-2 IgM antibodies
Suggest CPT coding:	86695,86696
Methodology:	Indirect Immunofluorescent Assay (IFA)
Testing Schedule:	Routine, 1 time per week
Report Available:	4-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	Negative **NOTE**: Unlike the HSV IgG 1 and 2 type specific assays, the HSV 1 and 2 IgM assays are not type specific and cross-reactivity may occur.
Clinical Utility:	Herpes Simplex produces several different conditions in man, most often occurring at the oral mucocutaneous junction with the formation of cold sores.

Test Name **HIV-1 and 2 Antibody Profile**	*Order Code* **HIV12**
Includes:	• HIV-1 and 2 Antibody Screen • Reflexed when appropriate to Western Blot (Order code: WBHIV)
Suggest CPT coding:	86703
Methodology:	HIV-1 and 2 Antibody Screen: Enzyme Immunoassay (EIA) Reflex Confirmation:Western Blot (WB)
Testing Schedule:	Routine, daily
Report Available:	2-4 days (may be extended if Western Blot required)
Minimum Volume:	2 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	• Specimen must be received in the original Vacutainer tube. Aliquot tubes will not be accepted. • The laboratory assumes that appropriate consent and pretest counseling have been performed by the physician prior to the request for testing.Consent forms should remain on the patient's chart, DO NOT send to the laboratory. • The Department of Health requires mandatory reporting of any confirmed positive result. • Repeatedly reactive screens will automatically be confirmed by Western Blot.These are preliminary until Western Blot results are available and final interpretation is made.
Reference Range:	Negative: No antibody detected.

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Test Name **HIV-1 and 2 Antibody Profile**	*Order Code* **HIV12**
Clinical Utility:	HIV-1 is the causative agent of AIDS (acquired immune deficiency syndrome) in humans. The HIV virus infects T-lymphocytes, resulting in immune deficiencies, manifested in such diseases as Kaposi's sarcoma, pneumonia, and various infections. HIV-2 is a comparable T-lymphocytic retrovirus that is less virulent, but is becoming more widespread worldwide. HIV-2 is more common outside of the United States, but cases have been reported in the U.S. This test code provides an initial combo enzyme immunoassay screening test for HIV-1 and HIV-2, reflexing to HIV-1 western blot.

Test Name **HTLV I/II Virus Antibody Profile**	*Order Code* **HT12P**
Includes:	• HTLV I/II Antibody Screen • Reflexed when appropriate: HTLV I/II Antibody, Western Blot.
Suggest CPT coding:	86790
Methodology:	HTLV I/II Antibody Screen: Chemiluminescence, Immunoassay: Reflex Confirmation Western Blot Immunoassay
Testing Schedule:	Routine, 2 times per week
Report Available:	2-4 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	Nonreactive
Clinical Utility:	Useful for laboratory evaluation of patients with proven or suspected ATL or HAM/TSP. Screening of blood, bone marrow, and solid organ donors for asymptomatic infection with HTLV-1 or HTLV-II.

Test Name **Immunoglobulin Profile 1**	*Order Code* **IGAM**
Includes:	• IgG • IgA • IgM
Suggest CPT coding:	82784(x3)
Methodology:	Rate Nephelometry
Testing Schedule:	Routine, 6 times per week
Report Available:	1-3 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listings.
Clinical Utility:	**See** individual test listings.

Test Name **Immunoglobulin Profile 2**	*Order Code* **IGAME**
Includes:	• IgG • IgA • IgM • IgE
Suggest CPT coding:	82784(x3),82785
Methodology:	Rate nephelometry
Testing Schedule:	Routine, 6 times per week
Report Available:	1-3 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listings.
Clinical Utility:	**See** individual test listings.

Test Name **Kidney Stone Diagnostic Risk Profile**	*Order Code* **KSP**
Includes:	• Volume Measurement • Collection Period • Calcium, Urine • Chloride, Urine • Citrate Excretion, Urine • Creatinine, Urine • Oxalate, Urine • pH, Urine • Phosphorus, Urine • Potassium, Urine • Sodium, Urine • Uric Acid, Urine
Suggest CPT coding:	81002,82340,82436,82507,83945,84105,84133,84300,84560
Methodology:	**See** individual test listings.
Testing Schedule:	Routine, daily
Report Available:	5-7 days
Minimum Volume:	Entire 24 hour collection .
Container:	24-Hour plastic urine container, no preservative
Collection:	**See** Special instructions for "24-Hour Urine Collection", listed under the Specimen Collection, Preparation, and Handling Section.
Special Instructions and/or Comments:	Patient should maintain a normal diet prior to testing.
Reference Range:	**See** Individual test listings
Clinical Utility:	Utilized to assess the risk of kidney stone development.

Test Name **Legionella pneumophila Antibody Profile**	*Order Code* **LEGAB**
Includes:	• IgG antibodies to Legionella pneumophila serogroups 1-6 • IgM antibodies to Legionella pneumophila serogroups 1-6

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Test Name **Legionella pneumophila Antibody Profile**	*Order Code* **LEGAB**
Suggest CPT coding:	86713(x12)
Methodology:	Indirect Fluorescent Antibody (IFA)
Testing Schedule:	Routine, 2 times per week
Report Available:	5-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, aliquot serum to plastic aliquot tube and refrigerate
Reference Range:	< 1:64 for both IgG and IgM
Clinical Utility:	Detect antibodies to Legionella; helps support the clinical diagnosis of Legionnaires' disease

Test Name **Leukemia/Lymphoma Profile, Blood/Bone Marrow, Flow Cytometry**	*Order Code* **LEUPR**
Includes:	Flow Cytometry markers appropriate for the clinical presentation.
Suggest CPT coding:	88184,88185(x25)
Methodology:	Flow Cytometry
Testing Schedule:	Routine, Monday-Friday no holidays
Report Available:	2-4 days
Minimum Volume:	15 mL whole blood OR 5 mL bone marrow
Container:	Green top tube, sodium heparin AND Lavender top tube, EDTA
Collection:	• Collect Monday-Friday ONLY before 1400, no holidays. • For special requests contact our Customer Care Department at 610-402-8170 prior to collecting specimen.
Special Instructions and/or Comments:	• Specimens must arrive in the laboratory before 1600. • Store as whole blood or bone marrow in original tube at room temperature. • Submit specimen with a completed Hematopathology Requisition (HNL-05) Form. Clinical history, diagnosis, and specimen type are required. • Form can be requested by contacting our Customer Care Department at 610-402-8170.
Reference Range:	See Patient Report
Clinical Utility:	Immunophenotyping by flow cytometry distinguishes among various hematopoietic cell populations and determines the degree of expression of a panel of cell surface antigens. The test is used along with morphologic, cytogenetic, and molecular genetic analysis in the identification/classification of hematopoietic neoplasms (leukemia, lymphoma, myelodysplastic disorders).

Test Name **Leukemia/Lymphoma Profile, Tissue/Fluid, Flow Cytometry**	*Order Code* **LYTPR**
Includes:	Flow cytometry markers appropriate for the clinical presentation
Suggest CPT coding:	88184,88185(x18)
Methodology:	Flow Cytometry
Testing Schedule:	Routine, Monday-Friday no holidays
Report Available:	2-4 days
Minimum Volume:	2 mL tissue OR fluid

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Test Name	*Order Code*
Leukemia/Lymphoma Profile, Tissue/Fluid, Flow Cytometry	**LYTPR**
Container:	• Submit tissue in an RPMI media. • Submit fluid in sterile conical tube.
Collection:	• Collect Monday-Friday only before 1400, no holidays. • For special requests contact our Customer Care Department at 610-402-8170 prior to collecting specimen.
Special Instructions and/or Comments:	• Specimens must arrive in the laboratory before 1600. • Submit specimen with a completed Hematopathology Requisition (HNL-05) Form and include clinical history, diagnosis, and specimen type. • Form and RPMI Media can be requested by contacting our Customer Care Department at 610-402-8170.
Reference Range:	**See** Patient Report
Clinical Utility:	Immunophenotyping by flow cytometry distinguishes among various hematopoietic cell populations and determines the degree of expression of a panel of cell surface antigens. The test is used along with morphologic, cytogenetic, and molecular genetic analysis in the identification/classification of hematopoietic neoplasms (leukemia, lymphoma, myelodysplastic disorders).

Test Name	*Order Code*
Lipid Panel	**LIPAN**
Includes:	• Cholesterol, Total • Triglycerides • HDL Cholesterol, Direct • Non-HDL Cholesterol • LDL Cholesterol, Calculated • Cholesterol/HDL Ratio
Suggest CPT coding:	80061
Methodology:	**See** individual test listings
Testing Schedule:	Routine, daily
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Collection:	Patient should fast for 12-14 hours (nothing by mouth except water and any essential medications).
Special Instructions and/or Comments:	• Patient should discontinue use of drugs, if possible, for 3-4 weeks prior to testing and should be maintaining a stable weight, considered normal, for a least 1 week. • Wait 4-8 weeks after a myocardial infarction or a traumatic episode.

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Test Name **Lipid Panel**	*Order Code* **LIPAN**
Reference Range:	**See** individual test listings. Reference Ranges for Calculated Parameters (NCEP Adult Treatment Panel III guidelines) **NON-HDL Cholesterol** • Very High/Highest risk patient (known CVD, diabetes with elevated risk): <130 mg/dL, optional goal: <100 mg/dL • High Risk Patient, CHD-risk equivalent, (Framingham 10 year risk score >20%/10y, diabetes without other major risk factors): <130 mg/dL • Moderately-high/intermediate risk patient (>2 major CVD risk factors, Framington 10-year risk score from 10-20%): <160 mg/dL, optional goal: <130 mg/dL **LDL Cholesterol, Calculated** • Near/above optimal: 100-129 mg/dL • Borderline high: 130 - 159 mg/dL • High: 160 - 189 mg/dL • Very High: >190 mg/dL **CHOL/HDL Ratio Relative Risk**: • 1/2 Average Risk 3.43 • Average Risk 4.97 • 2x Average Risk 9.55 • 3x Average Risk 23.39 The calculation of LDL by the Freidewald formula becomes invalid when the Triglyceride level is > 400 mg/dL.
Clinical Utility:	Useful for cardiovascular risk assessment.

Test Name **Lipid Profile with LDL**	*Order Code* **LIPLD**
Includes:	• Cholesterol, Total • Triglyceride • HDL Cholesterol • Non-HDL Cholesterol • LDL Cholesterol, Direct • Cholesterol/HDL Ratio
Suggest CPT coding:	80061,83721
Methodology:	**See** individual test listings
Testing Schedule:	Routine, daily
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Collection:	Patient should fast for 12-14 hours (nothing by mouth except water and any essential medications).
Special Instructions and/or Comments:	• Patient should discontinue use of drugs, if possible, for 3-4 weeks prior to testing and should be maintaining a stable weight, considered normal, for a least 1 week. • Wait 4-8 weeks after a myocardial infarction or a traumatic episode.
Reference Range:	**See** individual test listings and order code LIPLD.

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Test Name	*Order Code*
Lipid Profile with LDL	**LIPLD**
Clinical Utility:	Useful for cardiocascular risk assessment.

Test Name	*Order Code*
Liver Function Panel	**LFP**
Includes:	• Alanine Aminotransferase (ALT) • Albumin • Alkaline phosphatase • Aspartate Aminotransferase (AST) • Bilirubin, Direct • Bilirubin, Total • Protein, Total
Suggest CPT coding:	80076
Methodology:	**See** individual test listings.
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listing.
Critical Values:	**See** individual test listing.
Clinical Utility:	Used in the evaluation of hepatic function and hepatic disorders.

Test Name	*Order Code*
Liver Function Panel, Neonatal	**NLFP**
Includes:	• Alanine Aminotransferase (ALT) • Albumin • Alkaline Phosphatase • Aspartate Aminotransferase (AST) • Bilirubin, Direct Neonatal • Bilirubin, Total Neonatal • Protein, Total
Suggest CPT coding:	80076
Methodology:	**See** individual test listings
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listing.
Critical Values:	**See** individual test listing
Clinical Utility:	Used in the evaluation of hepatic function and hepatic disorders of the newborn.

Test Name **Lyme Disease Antibody Profile**	*Order Code* **LYMEP**
Includes:	• Lyme Antibody, Total (IgG/IgM) • Lyme Antibody, IgM • Reflexed when appropriate Lyme Antibody, Western Blot IgG Lyme Antibody, Western Blot IgM
Suggest CPT coding:	86618(x2)
Methodology:	Enzyme Linked Immunosorbent Assay (ELISA)
Testing Schedule:	Routine, 3 times per week
Report Available:	3-7 days
Minimum Volume:	2 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	The Department of Health requires mandatory reporting of any confirmed positive result.
Reference Range:	<0.91
Clinical Utility:	This test is used as a screen for assessment of exposure to B. burgdorferi during early- and late-stage disease. All IgM and IgG EIA positive results are confirmed by Western Blot.

Test Name **Lymphocyte Subset Profile**	*Order Code* **LSUBP**
Includes:	• CD45 Total Lymph Count • Absolute and % B cells (CD19) • Absolute and % T cells (CD3) • Absolute and % Helper cells (CD4) • Absolute and % suppressor cells (CD8) • Helper/Suppressor Ratio (CD4/CD8 Ratio) • Absolute and % NK cells (CD3-CD56+)
Suggest CPT coding:	86355,86357,86359,86360
Methodology:	Flow Cytometry
Testing Schedule:	Routine, Monday- Friday no holidays
Report Available:	2-4 days
Minimum Volume:	0.5 mL whole blood
Container:	Lavender top tube, EDTA
Special Instructions and/or Comments:	• Call laboratory for holiday collection instructions. • Store as whole blood in original tube at room temperature. • The Department of Health requires mandatory reporting of any abnormal CD4 result.
Reference Range:	**See** Patient Report.
Clinical Utility:	Monitor patient's individual T, B, and NK cell populations to infer cellular and humoral immune status.

Test Name **Mycoplasma pneumoniae Antibody Profile**	*Order Code* **MYCP**
Includes:	Mycoplasma pneumoniae IgG and IgM antibodies
Suggest CPT coding:	86738(x2)
Methodology:	Enzyme-Linked Immunosorbent Assay (ELISA)
Testing Schedule:	Routine, 2 times per week

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Test Name **Mycoplasma pneumoniae Antibody Profile**	*Order Code* **MYCP**
Report Available:	4-7 days
Specimen Requirements:	Reference Range **See table** Mycoplasma Profile Interpretation Chart

IgG	IgM	Interpretation
N	N	No serological evidence of recent or past Mycoplasma pneumoniae infection. Consideration of symptom onset with time of testing is important. A follow-up "convalescent" specimen may be warranted if results do not correlate with clinical presentation.
N	P	Suggest very early "acute" primary infection. This pattern warrants a second specimen to document seroconversion. Repeat testing in 10-14 days is suggested.
P	P	Suggests current or recent infection with Mycoplasma pneumoniae. Results should be interpreted in light of clinical presentation.
P	N	Suggests past infection with Mycoplasma pneumoniae.

Clinical Utility:
Evaluation of current or recent infection with Mycoplasma pneumoniae.

Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	<0.91
Clinical Utility:	Evaluation of current or recent infection with Mycoplasma pneumoniae.

Test Name **Obstetric Panel**	*Order Code* **PN1**
Includes:	• ABO/Rh and Antibody Screen (PREN code-ordered separately) • CBC with Automated Differential (CBCD) • Hepatitis B Surface Antigen (HbsAg) • Rubella IgG Antibody, Immune Status (RUBG) • RPR • Reflexed when appropriate: Hepatitis B Surface Antigen Neutralization Syphilis Serology RPR Titer Antibody Identification Phenotype Antigen Test Direct Antiglobulin Test Antibody Elution Antibody Titer
Suggest CPT coding:	80055
Methodology:	**See** individual test listings.
Testing Schedule:	Routine, daily

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Test Name **Obstetric Panel**	*Order Code* **PN1**
Report Available:	1-3 days
Container:	2 Gold top tubes, serum separator, AND 1 lavender top tube, EDTA AND 1 pink top tube, EDTA
Special Instructions and/or Comments:	• Submit specimen with a completed Blood Bank Requisition (LAB-04) Form. • This test should be performed on all pregnant women as early in pregnancy as possible. • For all clinically significant antibodies having reactivity greater or equal to 1+, an initial antibody titer will be performed. Subsequent titers should be requested by the physician. • Rh (D) positive women should have a repeat Prenatal Testing performed when there is a history of clinically significant red cell antibodies, previous blood transfusions, or trauma to the abdomen. • Rh (D) negative women should have a repeat Prenatal Testing performed at 28-30 weeks gestation prior to Rh (D) Immune Globulin (RhIG) administration and when other indications exist (see Rh (D) Immune Globulin for additional information) • Request an Obstetric Profile, Repeat Blood Bank Only if required.
Reference Range:	**See** individual test listings.
Critical Values:	**See** individual test listings.
Clinical Utility:	**See** individual test listings.

Test Name **Obstetric Profile PREN with Urinalysis**	*Order Code* **PN2**
Includes:	• ABO/Rh and Antibody Screen (PREN code-ordered separately) • CBC with Differential (CBCD) • Hepatitis B surface Antigen (HbsAg) • Rubella IgG Antibody, Immune Status (RUBG) • Urinalysis • RPR • Reflexed when appropriate: Hepatitis B Surface Antigen Neutralization Syphilis Serology RPR Titer Antibody Identification Phenotype Antigen Test Direct Antiglobulin Test Antibody Elution Antibody Titer
Suggest CPT coding:	80055,81001
Methodology:	**See** individual test listings.
Testing Schedule:	Routine, daily
Report Available:	1-3 days
Container:	2 Gold top tubes, serum separator, AND 1 Lavender top tube, EDTA , AND 1 Pink top tube, EDTA AND 1 plastic urine container
Reference Range:	**See** individual test listings.
Critical Values:	**See** individual test listings.
Clinical Utility:	**See** individual test listings.

Test Name **Parainfluenza Virus Antibody Profile**	*Order Code* **PAVA**
Includes:	Parainfluenza Virus 1, 2 and 3 antibodies

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Test Name **Parainfluenza Virus Antibody Profile**	*Order Code* **PAVA**
Suggest CPT coding:	86790(x3)
Methodology:	Complement Fixation
Testing Schedule:	Routine, Monday-Friday, no holidays
Report Available:	5-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	< 1:8 — No antibody detected ≥ 1:8 — Antibody detected
Clinical Utility:	Single titers of ≥ 1.64 are indicative of recent infection. Titers of 1:8 to 1:32 may be indicative of either past or recent infection, since CF antibody levels persist for only a few months. A four fold increase or greater in titer between acute and convalescent specimens confirms the diagnosis. After initial infection, antibody responses at a later date are often heterotypic and exhibit cross reactivity with other paramyxoviruses (eg. mumps).

Test Name **Poliovirus Antibody Profile**	*Order Code* **POVA**
Includes:	Poliovirus 1, 2 and 3 Antibodies **NOTE:** Use this test to access recent exposure to poliovirus. For vaccine response see Poliovirus Anitbody, Vaccine Response (POLVR)
Suggest CPT coding:	86658(x3)
Methodology:	Complement Fixation
Testing Schedule:	Routine, 3 times per week
Report Available:	7-10 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic alquot tube and refrigerate.
Reference Range:	<1:8 Antibody not detected. ≥1:8 Antibody detected
Clinical Utility:	This assay is designed to detect recent poliovirus infection; single titers ≥1:32 provide strong support for recent natural (non-vaccine) exposure. The test is not appropriate for assessing vaccine responses or immunity to polioviruses; poliovirus neutralization is the recommended test for these purposes (POLVR).

Test Name **Renal Function Panel**	*Order Code* **RFP**
Includes:	• Albumin • Calcium • Carbon Dioxide (CO2) • Chloride • Creatinine • Glucose • Phosphorous • Potassium • Sodium • Urea Nitrogen (BUN) • Anion Gap Calculation • Glomerular Filtration Rate Calculation (GFR)
Suggest CPT coding:	80069
Methodology:	**See** individual test listings.
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listings
Critical Values:	**See** individual test listings
Clinical Utility:	Used in the evaluation of renal function and renal disorders.

Test Name **Rubella Antibody Profile**	*Order Code* **RUBP**
Includes:	Rubella virus IgG and IgM antibodies
Suggest CPT coding:	86762(x2)
Methodology:	**See** individual test listings
Testing Schedule:	Routine, 1 time per week
Report Available:	4-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator

Continued...

Test Name	*Order Code*
Rubella Antibody Profile	**RUBP**

Reference Range: See individual test listings and the following table.

Rubella Profile Interpretation

IgG	IgM	Comment
Negative	Negative	No detectable antibody to Rubella virus and suggests no current, recent, or past infection. Patient is not immune and is susceptible to primary infection.
Negative	Positive	May suggest very early "acute" infection with Rubella virus or recent vaccination. This pattern warrants a second specimen to document seroconversion as well as rule out possible cross-reactive antibodies.
Positive	Positive	Suggests current or recent primary infection with Rubella virus. Patients may continue to produce Rubella specific IgM antibody for 1-6 months following a primary infection. On the basis of these results, it is not possible to distinguish the difference between vaccine induced antibody and antibody resulting from natural infection. Results should be interpreted in light of the clinical situation.
Positive	Negative	Suggests either past exposure to or vaccination with Rubella virus. Patient is immune.

Clinical Utility: For the in vitro detection of IgG & IgM antibodies specific for Rubella.

Test Name	*Order Code*
Sjögren's Autoantibody Profile	**SJO**

Includes:	SSA and SSB Autoantibodies
Suggest CPT coding:	86235(x2)
Methodology:	Enzyme-Linked Immunosorbent Assay (ELISA)
Testing Schedule:	Routine, 1 time per week
Report Available:	4-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	<20 U/mL
Clinical Utility:	This panel is used to aid the diagnosis of Sjogren's Syndrome. One or both of the autoantibodies are detected in 80-90% of Sjogren's Syndrome (SS) and 30 - 35% of patients with SLE. SSA and SSB antibodies detected in 96% of patients with primary (SS) and in all patients with SS secondary to RA. SSA and SSB are rarely detected in SS secondary to rheumatoid arthritis, progressive systemic sclerosis, and primary biliary cirrhosis.

Test Name **Synovial Fluid Profile**	*Order Code* **SSFA**
Includes:	• Cell Count • Crystals • Mucin Clot • Viscosity
Suggest CPT coding:	83872,85810,89050,89060
Methodology:	Manual
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	See individual test listings.
Container:	Lavender top tube, EDTA AND Red top tube, no serum separator
Reference Range:	See individual test listings
Clinical Utility:	Used in the evaluation of inflammatory and infectious disorders of joints and in the evaluation of joint pathology and trauma.

Test Name **Thoracentisis Fluid Profile**	*Order Code* **TFA**
Includes:	• Cell count • Glucose, Fluid • Lactate Dehydrogenase, Fluid • Protein, Total, Fluid
Suggest CPT coding:	82945,83615,84157,89050
Methodology:	See individual test listings.
Testing Schedule:	Routine daily, STAT testing available
Report Available:	1 day
Minimum Volume:	2 mL thoracentisis fluid in each tube
Container:	Red top tube, no serum separator AND Lavender top tube, EDTA
Reference Range:	See individual test listing
Clinical Utility:	Used to evaluate effusion and differentiate exudate from transudate.

Test Name **Thyroglobulin Profile**	*Order Code* **THGLB**
Includes:	• Thyroglobulin, Quantitative • Thyroglobulin Autoantibody
Suggest CPT coding:	84432,86800
Methodology:	Chemiluminescent Immunoassay
Testing Schedule:	Routine, 3 times per week
Report Available:	4-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge, transfer to plastic aliquot tube and refrigerate.

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Test Name	*Order Code*
Thyroglobulin Profile	**THGLB**

Reference Range:

Thyroglobulin, Quantitative	
Normal Thyroid:	< 33 ng/mL
Athyroidic Patient:	< 5 ng/mL
Thyroglobulin Autoantibody	< 2.3 IU/mL

Clinical Utility: Thyroglobulin testing is often used as a tumor marker to determine the effectiveness of thyroid cancer treatment.

Test Name	*Order Code*
TORCH IgM Antibody Profile	**TORCM**

Includes: IgM Antibodies to each of the following:

- Toxoplasma gondii
- Rubella virus
- Cytomegalovirus (CMV)
- Herpes Simplex Virus (HSV) types 1 and 2

Suggest CPT coding: 86645,86695,86696,86762,86778

Methodology: **See** individual test listings.

Testing Schedule: Routine, 2 times per week

Report Available: 4-7 days

Minimum Volume: 2 mL serum

Container: Gold top tube, serum separator

Reference Range: **See** individual test listings.

Clinical Utility: Aid in diagnosis of acute or recent infection.

Test Name	*Order Code*
Total Iron Binding Capacity Profile	**TIBCP**

Includes:

- Iron, Serum
- Transferrin
- Calculation of Percent Saturation and TIBC

Suggest CPT coding: 83540,84466

Methodology: **See** individual test listings.

Testing Schedule: Routine, daily

Report Available: 1 day

Minimum Volume: 1 mL serum

Container: Gold top tube, serum separator

Collection:

- Specimen should be collected prior to therapeutic iron dose or blood transfusion.
- Iron determinations on patients who have had blood transfusions should be delayed for at least 4 days.

Reference Range: **See** individual test listings.

Total iron binding capacity (TIBC)	260-430 mg/mL
Percent saturation	20-50%

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Test Name **Total Iron Binding Capacity Profile**	*Order Code* **TIBCP**
Clinical Utility:	Increased total iron binding capacity is often seen in iron deficiency states, parental iron administration, pregnancy without iron supplements, and hepatitis or hepatic necrosis. Decreased concentrations are often seen in chronic inflammatory disorders, chronic iron overloading, and malignancies.

Test Name **Toxic Shock Antibody Profile**	*Order Code* **TSSN**
Includes:	TSST-1 antibody/Enterotoxin B antibody
Suggest CPT coding:	86609(x2)
Methodology:	MAID (Multi-Analyte Immunodetection)
Testing Schedule:	Routine, 1 time per week
Report Available:	7-10 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	Negative
Clinical Utility:	Toxic shock syndrome (TSS) is associated with strains of Staphylococcus aureus that produce TSS toxin-1 (TSST-1) and/or staphylococcal enterotoxin B (SEB). TSST-1 i sassociated with approximately 65% of TSS cases, whereas SEB is associated with approximatley 20% of cases. Individuals lacking antibodies to TSST-1 or to SEB (approximately 10% and 20% of adults respectively) are presumed to be at highest risk of TSS. This test is thus designed to identify antibody-negative indviduals at risk for TSS; it should not be used as a tool for diagnosing TSS.

Test Name **Toxoplasma Antibody Profile**	*Order Code* **TOXP**
Includes:	Toxoplasma gondii IgG and IgM antibodies.
Suggest CPT coding:	86777,86778
Methodology:	**See** individual test listings.
Testing Schedule:	Routine, 2 times per week
Report Available:	4-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Reference Range:	**See** individual test listing.
Clinical Utility:	Support the serodiagnosis of toxoplasmosis.

Test Name **von Willebrand Profile, Comprehensive**	*Order Code* **VWD**
Includes:	• Factor VIII Activity • Factor VIII Antigen • Ristocetin Cofactor • Interpretation
Suggest CPT coding:	85240,85245,85246

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Test Name	*Order Code*
von Willebrand Profile, Comprehensive	**VWD**

Methodology:	**See** individual test listings
Testing Schedule:	Routine, 1 time per week
Report Available:	7-10 days
Minimum Volume:	4 mL plasma
Container:	4 Full Light Blue top tubes, sodium citrate
Collection:	**See** Special Handling Instructions for "Coagulation Studies", listed under the Specimen Collection, Preparation, and Handling Section
Special Instructions and/or Comments:	• Transport all tubes at room temperature and deliver immediately to the testing department. • **DO NOT** chill; platelets are activated at low temperatures. • **DO NOT** centrifuge or aliquot; must remain as whole blood in original tubes.
Reference Range:	**See** individual test listings
Clinical Utility:	**See** individual test listings

Test Name	*Order Code*
West Nile Virus Antibody Profile	**WNVS**

Includes:	IgG and IgM Antibodies
Suggest CPT coding:	86788,86789
Methodology:	West Nile Virus IgG: Enzyme Immunoassay (EIA) West Nile Virus IgM: MAC EIA-IgM Antibody Capture EIA
Testing Schedule:	Routine, 2 times per week
Report Available:	5-7 days
Minimum Volume:	1 mL serum
Container:	Gold top tube, serum separator
Collection:	Convalescent specimens, if required, should be submitted at least 2 weeks after the acute specimen.
Special Instructions and/or Comments:	Centrifuge specimen, transfer serum to plastic aliquot tube and refrigerate.
Reference Range:	

West Nile Virus IgG Antibody:	< 1.30 INDEX
West Nile Virus IgM Antibody:	< 0.90 INDEX

Clinical Utility:	The West Nile Virus is a single-stranded RNA virus of the Flaviviridae family. Like other arboviruses (e.g. St. Louis Encephalitis, Dengue Fever, and Yellow Fever), its main route of transmission to humans is through mosquitoes (primarily culex species) that have acquired the virus from infected birds. A single elevated WNV result, including IgM that may persist for many months, could represent past infection with WNV of infection with another flavivirus including Dengue and St. Louis Encephalitis. Diagnosis of suspected WNV infection is confirmed by isolation of WNV or detection of WNV antigen or nucleic acid sequences in clinical samples or detection of WNV-specific IgM in blood or spinal fluid, confirmed with detection of WNV-specific neutralizing antibody in the same or a subsequent sample.