NEW TESTS Please Note: Not all test codes assigned to each assay are listed in the table of contents. Please refer to the complete listing on the page numbers indicated.			
Test Code	**Test Name**	**Effective Date**	**Page #**
37400	**Cell Surface Marker, Individual**	6/5/2012	3
40083	**Factor VIII Inhibitor Panel**	6/5/2012	4
36573	**Hexagonal Phase Neutralization**	6/5/2012	5
7079	**Lupus Anticoagulant Evaluation with Reflex**	6/5/2012	6
37088	**Natural Killer Cells**	6/5/2012	7
5341	**Platelet Antibody, Indirect (IgG)**	6/5/2012	8
10678	**Platelet Glycoprotein Antibody**	6/5/2012	9
11051	**Thrombosis Panel**	6/5/2012	9
5168	**von Willebrand Antigen, Multimeric Analysis**	6/5/2012	10
19790	**von Willebrand Comprehensive Panel**	6/5/2012	11

TEST CHANGES Please Note: Not all test codes assigned to each assay are listed in the table of contents. Please refer to the complete listing on the page numbers indicated.				
Test Code	**Former Test Code**	**Test Name**	**Effective Date**	**Page #**
1415		Diphtheria Toxoid IgG Antibodies	4/26/2012	12
2418		Cytomegalovirus Culture	6/5/2012	12
1160		Erythropoietin	6/5/2012	12
5906		Hepatitis Autoimmune EvaluatR™ PLUS	6/5/2012	13
4875		Selenium	6/5/2012	14
3250		TSH	6/5/2012	14

REDIRECTS Please Note: Not all test codes assigned to each assay are listed in the table of contents. Please refer to the complete listing on the page numbers indicated.				
Test Code	**Former Test Code**	**Test Name**	**Effective Date**	**Page #**
22	5900	Activated Protein C Resistance	6/5/2012	14
19704	5901	Activated Protein C Resistance with Reflex to Factor V (Leiden) Mutation	6/5/2012	15
9759	1081	Antiphospholipid Antibody Panel	6/5/2012	16
216	5951	Antithrombin III Activity	6/5/2012	16
7017	5952	Antithrombin III Activity and Antigen	6/5/2012	17
5158	3253	Antithrombin III Antigen	6/5/2012	17
36552	1184	Beta-2-Glycoprotein I (Beta-2-GPI) IgA Autoantibodies	6/5/2012	18
36554	1182	Beta-2-Glycoprotein I (Beta-2-GPI) IgG Autoantibodies	6/5/2012	19

30340	1083	Beta-2-Glycoprotein I (Beta-2-GPI) IgG, IgM & IgA Autoantibodies	6/5/2012	19
36553	1183	Beta-2-Glycoprotein I (Beta-2-GPI) IgM Autoantibodies	6/5/2012	20
4662	3372	Cardiolipin Antibodies (IgG)	6/5/2012	21
7352	3371	Cardiolipin Antibodies (IgG, IgA, IgM)	6/5/2012	21
36333	3375	Cardiolipin Antibodies (IgG, IgM)	6/5/2012	22
4661	3374	Cardiolipin Antibody (IgA)	6/5/2012	23
4663	3373	Cardiolipin Antibody (IgM)	6/5/2012	23
15780	15780	DRVVT Screen w/Rfl DRVVT Confirm & DRVVT 1:1 Mix	6/5/2012	24
347	1947	Factor VIII Activity, Clotting	6/5/2012	24
461	1426	Fibrinogen Activity, Clauss	6/5/2012	25
414	5945	Heparin-Induced Platelet Antibody	6/5/2012	25
528	1350	HLA-B27 Antigen	6/5/2012	25
9762	5963	Lupus Anticoagulant Evaluation with Reflex	6/5/2012	26
71978	71978	Lymphocyte Subset Panel 1	6/5/2012	27
36420	36420	Lymphocyte Subset Panel 2	6/5/2012	27
71958	71958	Lymphocyte Subset Panel 3	6/5/2012	27
79248	79248	Lymphocyte Subset Panel 4	6/5/2012	27
83608	83608	Lymphocyte Subset Panel 5	6/5/2012	27
8922	3890	Mixing Study	6/5/2012	28
763	3895	Partial Thromboplastin Time, Activated (aPTT)	6/5/2012	28
39457	5992	Protein C & Protein S, Functional	6/5/2012	29
1777X	3836	Protein C Activity	6/5/2012	30
8757	5933	Protein C Activity and Antigen	6/5/2012	30
4948	5932	Protein C Antigen	6/5/2012	31
1779X	3837	Protein S Activity	6/5/2012	32
7039	5938	Protein S Activity and Antigen, Total	6/5/2012	32
10170	5935	Protein S Antigen, Free	6/5/2012	33
5165	5937	Protein S Antigen, Total	6/5/2012	34
8847	3892	Prothrombin Time with INR	6/5/2012	34
4459	1871	Ristocetin Cofactor	6/5/2012	35
39588	1658	T and B Cells, Total	6/5/2012	35
883	4210	Thrombin Clotting Time	6/5/2012	36
4919X	1907	von Willebrand Factor Antigen	6/5/2012	36
9761	5961	von Willebrand Panel	6/5/2012	37

DISCONTINUED TESTS
Please Note: Not all test codes assigned to each assay are listed in the table of contents.

Please refer to the complete listing on the page numbers indicated.			
Test Code	**Test Name**	**Effective Date**	**Page #**
5310	BAALC (Brain and Acute Leukemia, Cytoplasmic) UltraQuant®	6/5/2012	37
5991	Cardiovascular Thrombotic Risk AssessR™	6/5/2012	37
1687	CD16/56 Surface Marker	6/5/2012	38
1688	CD19 Surface Marker	6/5/2012	38
1683	CD3 Surface Marker	6/5/2012	38
1684	CD4 Surface Marker	6/5/2012	38
1685	CD8 Surface Marker	6/5/2012	38
1967	Factor VIII Inhibitor	6/5/2012	38
5965	Hereditary Thrombosis Screen A, No Heparin or Coumadin	6/5/2012	38
9872	HIV-1 RNA Quantitative, bDNA & CD4 Cell Count	6/5/2012	39
1910	Lupus Anticoagulant AssessR™	6/5/2012	39
1915	Lupus Anticoagulant: Hexagonal Phase	6/5/2012	39
5976	Lupus Anticoagulant: Screen 2	6/5/2012	39
5962	Lupus Anticoagulant: Screen 3	6/5/2012	39
1872	Natural Killer Cell Quantitation	6/5/2012	39
6104	Platelet Associated Glycoprotein (Direct) Ab	6/5/2012	39
6100	Platelet Glycoprotein (Direct & Indirect) Abs	6/5/2012	40
6102	Platelet Glycoprotein (Indirect) Autoabs	6/5/2012	40
5957	Platelet Glycoprotein Ia/IIa Total Autoantibodies	6/5/2012	40
5955	Platelet Glycoprotein Ib/Ix Total Autoantibodies	6/5/2012	40
5956	Platelet Glycoprotein IIb/IIIa Total Autoantibodies	6/5/2012	40
5990	Thrombotic Risk AssessR™	6/5/2012	40
5972	Thrombotic Risk Evaluation 1	6/5/2012	40
5971	Thrombotic Risk Evaluation 2	6/5/2012	40
5973	Thrombotic Risk Evaluation 3	6/5/2012	41
5981	von Willebrand Evaluation with Multimers	6/5/2012	41
5984	von Willebrand Evaluation without Multimers	6/5/2012	41
1905	von Willebrand Factor Multimers Panel	6/5/2012	41
1906	von Willebrand Multimers	6/5/2012	41

New Test Offerings

The following tests will be available through Quest Diagnostics on the dates indicated below.

Cell Surface Marker, Individual	
Message	Suggested replacement for discontinued test codes 1683 CD3 Surface Marker, 1684 CD4 Surface Marker, 1685 CD8 Surface Marker, 1687 CD16/56 Surface Marker, 1688 CD19 Surface Marker

Effective Date	**6/5/2012**
Test Code	**37400**
CPT Codes	86356
Specimen Requirements	5 mL room temperature Whole blood (1 mL minimum) in Sodium heparin (green-top) or in ACD solution B (yellow-top) or in EDTA (lavender-top) or in EDTA (royal blue-top) or in Sodium heparin (green-top) Alternate: 2 mL Bone marrow (1 mL minimum) in Sodium heparin (green-top); ACD solution B (yellow-top); EDTA (lavender-top); EDTA (royal blue-top); Lithium heparin (green-top)
Reject Criteria	Received frozen, Bronchial washings
Instructions	5 mL (1.0 mL) Whole Blood or 2 mL (1.0) Bone Marrow or Fresh Tissue in tissue culture media (such as RPMI). Must specify CD marker (call laboratory for availability of CD markers available). Do not freeze.
Transport Temperature	Whole blood in Sodium heparin (green-top) or in ACD solution B (yellow-top) or in EDTA (lavender-top) or in EDTA (royal blue-top) or in Sodium heparin (green-top) Room temperature preferred; Frozen unacceptable Bone marrow in Sodium heparin (green-top); ACD solution B (yellow-top); EDTA (lavender-top); EDTA (royal blue-top); Lithium heparin (green-top) Room temperature: 48 Hours
Specimen Stability	Room temperature: 48 Hours
Set-up/Analytic Time	Sets up Sun, Mon, Tue, Wed, Thu, Fri, Sat; Report Available: 1 to 2 days.
Reference Range	% of Gated Cell Population
Always Message	The results of this test should be interpreted in conjunction with the other clinical and pathologic features of this patient. This test was developed and its performance characteristics have been determined by Quest Diagnostics Nichols Institute, San Juan Capistrano. It has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. Performance characteristics refer to the analytical performance of the test.
Methodology	Flow Cytometry
Assay Category	Laboratory Developed Test
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** 3271 / Cell Surface Marker 30614 / % of Gated Cell Population

Factor VIII Inhibitor Panel	
Message	Suggested replacement for discontinued test code 1967 Factor VIII Inhibitor
Clinical Significance	The presence of alloantibodies against factor VIII activity is a complication of treatment in hemophilia A, while the presence of autoantibodies may develop spontaneously in patients with acquired Factor VIII-C deficiency. The presence of Factor VIII inhibitor may lead to the neutralization (inactivation) of transfused or endogenous Factor VIII activity. The detection and magnitude of Factor VIII inhibitor is of great importance in the care of these patients. Factor VIII inhibitor EIA assay provides a quick method for the detection of Factor VIII inhibitor with less sample volume.
Effective Date	**6/5/2012**
Test Code	**40083**
CPT Codes	85240, 85335
Specimen Requirements	2 mL (1.0) plasma collected in 3.2% sodium citrate (lt. blue-top) tubes [x3]

Instructions	Submit a total of 6 mL, 2 mL in each of 3 tubes. Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Freeze immediately and ship on dry ice.**
Transport Temperature	Frozen
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: 14 days
Set-up/Analytic Time	Set up: Mon, Wed; Report available: 4-9 days
Reference Range	See Laboratory Report
Methodology	See individual assays
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	

Result Code	Result Name
4344	Factor VIII Inhibitor, EIA
29240	Factor VIII Activity
29241	Factor VIII Inhibitor
29242	NijmegenAssay

Hexagonal Phase Neutralization	
Message	Suggested replacement for discontinued test code 1915 Lupus Anticoagulant: Hexagonal Phase
Clinical Significance	This test is useful in determining the presence of the lupus anticoagulant that is associated with increased risk of thrombosis.
Effective Date	**6/5/2012**
Test Code	**36573**
CPT Codes	**85598**
Specimen Requirements	**1.5 mL 3.2% sodium citrate (lt. blue-top) plasma**
Reject Criteria	**Received room temperature; Received refrigerated; Hemolysis**
Instructions	**Platelet Poor Plasma: Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). Freeze immediately and ship on dry ice.**
Transport Temperature	**Frozen**
Specimen Stability	**Room temperature: Unacceptable** **Refrigerated: Unacceptable** **Frozen: 90 Days**
Set-up/Analytic Time	**Set up: Mon-Sat; Report available: 3 days**
Reference Range	**NEGATIVE**
Methodology	**Hexagonal Phospholipid Neutralization Clot Assay**
Assay Category	**FDA Approved/Cleared**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

CPU Mappings	**Result Code** / **Result Name** **30035850** / **Hexagonal Phase Neutraliza**

Lupus Anticoagulant Evaluation with Reflex	
Message	Suggested replacement for discontinued test code 1910 Lupus Anticoagulant AssessR™ If PTT-LA is prolonged (>40 seconds), the Hexagonal Phase Confirmation will be performed at an additional charge. If dRVVT screen is prolonged (>45 seconds), the dRVVT Confirmation will be performed at an additional charge. If dRVVT Confirm is positive, a dRVVT 1:1 dilution will be performed at an additional charge.
Clinical Significance	Lupus Anticoagulants (LA) are members of a family of antibodies with phospholipid specificity. LA may be defined as an immunoglobulin (S), IgG or IgM or a mixture of both, that interferes with one or more of the invitro phospholipid (PL) dependent tests of coagulation. These antibodies are not associated with a hemorrhagic diathesis, but rather have been linked to thrombotic events. It is not known whether the antibody is causative, coincidental or a consequence of the thrombosis. In addition to thrombosis, other clinical complications have been associated with the presence of LA. These include strokes, nonbacterial thrombotic endocarditis, livedo reticularis and a variety of obstetrical complications such as intrauterine fetal death, recurrent spontaneous abortion, fetal growth retardation, early onset preeclampsia and chorea gravidarum.
Effective Date	**6/5/2012**
Test Code	**7079**
CPT Codes	85730; 85613
Specimen Requirements	3 mL 3.2% sodium citrate (lt. blue-top) plasma
Reject Criteria	Received thawed
Instructions	Platelet Poor Plasma: Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). Freeze immediately a**nd ship on dry ice.**
Transport Temperature	Frozen
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: 90 Days
Set-up/Analytic Time	Set up: Mon-Sat; Report available: 2 days
Reference Range	Lupus Anticoagulant: Not Detected PTT-LA: < or = 40 seconds Hexagonal Phase Confirm: Negative dRVVT Screen: < or = 45 seconds dRVVT Confirm: Negative dRVVT 1:1 Mix: Corrected
Methodology	Photo-Optical Clot Detection
Assay Category	FDA Approved/Cleared
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	Lupus Anticoagulant Result Code / Result Name 30035900 / Lupus Anticoagulant 30035205 / PTT-LA Screen Hexagonal Phase Confirm

Result Code	Result Name
30035850	Hexagonal Phase Confirm
dRVVT Screen	
Result Code	Result Name
30035405	dRVVT Screen
dRVVT Confirm	
Result Code	Result Name
30035350	dRVVT Confirm
dRVVT 1:1 Mix	
Result Code	Result Name
30035360	dRVVT 1:1 Mix
30035380	dRVVT Mix Interpretation

Natural Killer Cells	
Message	Suggested replacement test code for discontinued test 1872 Natural Killer Cell Quantitation
Clinical Significance	This test measures Natural Killer cells. Measurement of NK cells is useful in the diagnosis of retinoblastomas, medullblastomas, astrocytomas, and neuroblastomas.
Effective Date	**6/5/2012**
Test Code	**37088**
CPT Codes	86357
Specimen Requirements	5 mL EDTA (lavender-top) whole blood
Reject Criteria	Received frozen
Instructions	Do not freeze. Do not transfer whole blood to M4. Submit the EDTA tubes at room temperature.
Transport Temperature	Room temperature
Specimen Stability	Room temperature: 72 hours Refrigerated: Unacceptable -20°C Frozen: Unacceptable -70°C Frozen: Unacceptable
Set-up/Analytic Time	Set up: Mon-Sun; Report available: 2 days
Reference Range	Lymphocytes, Absolute: Reference Ranges for Absolute Lymphocyte Count: Age cells/uL 0-3.9 days: 2000-11500 4 days-2.9 wks: 2000-17000 3 wks-1.9 mos: 2500-16500 2-2.9 mos: 3300-15000 3-6.9 mos: 4000-13500 7 mos-2.9 yrs: 4000-10500 3-6.9 yrs: 2000-8000 7-12.9 yrs: 1500-6500 13-18.9 yrs: 1200-5200 19-133 yrs: 850-3900

	CD3-CD16+CD56+ (Abs): Reference Ranges for CD3-CD16+CD56 Absolute: Age cells/uL 1-11.9 Months 160-930 1-2 Years 95-620 3-6 Years 60-540 7-12 Years 70-500 13-18 Years 60-430 Adults (>18 Years) 70-760 CD3-/CD16+CD56+ (%): Reference Ranges for CD3-CD16+CD56 %: Age Percent 1-11.9 Months 3-14 1-2 Years 2-16 3-6 Years 3-20 7-12 Years 3-19 13-18 Years 3-18 Adults (>18 Years) 4-25
Assay Category	FDA Approved/Modified
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** 10617 / WBC/Lymphs Phenotyping Result Code / Result Name 10631 / Natural Killer Cells 10632 / CD3-CD16+CD56+ (Abs) 10633 / CD3-/CD16+CD56+ (%)

Platelet Antibody, Indirect (IgG)	
Message	Suggested replacement for discontinued test code 6102 Platelet Glycoprotein (Indirect) Autoabs
Clinical Significance	Neonatal alloimmune thrombocytopenia (NAIT) results from the placental transfer of maternal antiplatelet IgG antibody (alloantibody) formed against incompatible fetal platelet antigens. Indirect antibody may also be present in post-transfusion purpura (PTP).
Effective Date	**6/5/2012**
Test Code	**5341**
CPT Codes	86022
Specimen Requirements	1.5 mL red-top (no gel) serum (SST is acceptable)
Transport Temperature	Frozen
Specimen Stability	Room temperature: 48 hours Refrigerated: 48 hours Frozen: 30 days
Set-up/Analytic Time	Set up: Mon-Sat; Report available: 2 days
Reference Range	NEGATIVE
Always Message	The Indirect APA assay detects alloantibodies directed against platelet and/or HLA Class I antigens. This test is most

	often used to evaluate neonatal alloimmune thrombocytopenia (NAIT) and post transfusion purpura. NAIT is associated with the presence of platelet specific antibodies. HLA Class I antibodies are common in pregnancy. Involvement of HLA Class I antibodies in NAIT has been suspected in a few cases, but a true association has not been proven. Clinical correlations are necessary for diagnosis.
Methodology	Enzyme Immunoassay
Assay Category	FDA Approved/Cleared
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name**: 40052200 / Indirect (IgG)

Platelet Glycoprotein Antibody	
Message	Suggested replacement for discontinued test code 6104 Platelet Associated Glycoprotein (Direct) Abs
Clinical Significance	Platelet Glycoprotein Antibody is associated with autoimmune thombocytopenic purpura (ATP) sometimes observed in patients with lymphoma, systemic lupus erythematosus (SLE), and HIV infection.
Effective Date	**6/5/2012**
Test Code	**10678**
CPT Codes	86022
Specimen Requirements	7 mL [x2] EDTA (lavender-top) whole blood
Reject Criteria	Received refrigerated; Received frozen
Instructions	Instruction: Samples are stabilized 6 days per week, Mon - Sat. Samples must arrive by 6 am to be stabilized the same day. Please do not draw/ship samples late Fri, Sat, or Sun due to the short (72 hour) stability of the samples. Note: Samples stabilized on a setup day will not be set up until the following setup day.
Transport Temperature	Room temperature
Specimen Stability	Room temperature: 72 hours Refrigerated: Unacceptable Frozen: Unacceptable
Set-up/Analytic Time	Set up: Mon/Thu; Report available: 3 day**s**
Reference Range	NEGATIVE
Always Message	This assay is designed to detect autoantibodies with platelet glycoproteins IIb/IIIa, Ib/IX and Ia/IIa of IgA, IgM and IgG isotypes. Autoantibodies to other platelet proteins are not expected to react in this assay. It is possible that an autoantibody could give a false negative result in this assay due to steric hindrance of the autoantibody by the murine monoclonal antibodies used to capture the platelet glycoprotein.
Methodology	Enzyme Linked Immunosorbent Immunoassay
Assay Category	FDA Approved/Cleared
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name**: 6258 / Platelet Glycoprotein Ab

Thrombosis Panel	
Message	Suggested replacement for discontinued test code 5972 Thrombotic Risk Evaluation 1

Effective Date	**6/5/2012**
Test Code	**11051**
CPT Codes	85300, 85303, 85306, 85307
Specimen Requirements	5 mL (2.5) plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Thawed plasma
Instructions	**Platelet Poor Plasma:** Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Freeze immediately and ship on dry ice.**
Transport Temperature	Frozen
Specimen Stability	Room temperature: **Unacceptable** Refrigerated: **Unacceptable** Frozen: 14 days -70°: 6 months
Set-up/Analytic Time	See individual assays
Reference Range	See laboratory report
Methodology	APTT-Based Assay (Clot-Based), Clotting Assay, Clot Detection, Chromogenic Substrate, RVVT Based Clot Assay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	

Result Code	Result Name
27757	Interpretation
30021100	Protein C Activity
30021400	Protein S Activity
31000100	Antithrombin III Activity
85986710	APC Resistance

von Willebrand Antigen, Multimeric Analysis	
Message	Platelet Associated Glycoprotein (Direct) Abs 1906 von Willebrand Multimers
Clinical Significance	von Willebrand Disease is the most common hereditary bleeding disorder; it may also be acquired. von Willebrand Factor is necessary for platelet adhesion to injured endothelium. von Willebrand Factor Antigen, Multimeric Analysis is useful when type 2 Disease is suspected and to further categorize disease. For example, in type 2A, the loss of high molecular weight multimers is due to defective assembly and secretion or increased proteolysis.
Effective Date	**6/5/2012**
Test Code	**5168**
CPT Codes	85247
Specimen Requirements	1 mL 3.2% sodium citrate (lt. blue-top) plasma
Reject Criteria	Received room temperature; Received refrigerated; Hemolysis
Instructions	Note: Storage of whole blood at refrigerated temperatures prior to processing may lead to cryoprecipitate formation and falsely low Factor VIII and von Willebrand Factor studies. Platelet Poor Plasma: Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). Freeze immediately and ship on dry ice.

Transport Temperature	Frozen
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable -70°C Frozen: 6 months
Set-up/Analytic Time	Set up: Mon-Fri; Report available: 4 days
Reference Range	NORMAL
Methodology	Electrophoresis
Assay Category	Laboratory Developed Test
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** 85992166 / vWf Ag, Multimeric

von Willebrand Comprehensive Panel	
Message	Suggested replacement for discontinued test code 5981 von Willebrand Evaluation with Multimers
Effective Date	**6/5/2012**
Test Code	**19790**
CPT Codes	85730; 85240; 85246; 85245; 85247
Specimen Requirements	1 mL [x4] 3.2% sodium citrate (lt. blue-top) plasma
Instructions	Note: Storage of whole blood at refrigerated temperatures prior to processing may lead to cryoprecipitate formation and falsely low Factor VIII and von Willebrand Factor studies. Platelet Poor Plasma: Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). Freeze immediately and ship on dry ice.
Transport Temperature	Frozen
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: 14 days
Set-up/Analytic Time	See individual assays
Reference Range	Thromboplastin Time: 22-34 sec Coag Factor VIII Activity: 50-180 % normal vWF Ag: 50-217 % vWf: Ristocetin Co-Factor: 42-200 % normal vWf Ag, Multimeric: NORMAL
Always Message	http://education.questdiagnostics.com/faq/vonWillebrand The therapeutic range for unfractionated heparin therapy is 1.5-2.5 times the mean of the reference interval. In patients in whom there is an apparent heparin resistance, a heparin level by an anti-Xa method is available.
Assay Category	Laboratory Developed Test
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	Result Code / Result Name 27753 / Interpretation Partial Thromboplastin Time, Activated (aPTT)

Result Code	Result Name
250	Thromboplastin Time
Factor VIII Activity, Clotting	
Result Code	Result Name
3600	Coag Factor VIII Activity
von Willebrand Factor Antigen	
Result Code	Result Name
85991141	vWF Ag
Ristocetin Cofactor	
Result Code	Result Name
3790	vWf: Ristocetin Co-Factor
von Willebrand Antigen, Multimeric Analysis	
Result Code	Result Name
3275	vWf Ag, Multimeric

Test Changes

Diphtheria Toxoid IgG Antibodies	
Effective Date	**4/26/2012**
Test Code	**1415**
Assay Category	**FDA Approved**
Tests Affected	**Test Codes:** / **Name:** 1415P / Diphtheria Toxoid IgG Antibodies, Pre/Post Vaccination

Cytomegalovirus Culture	
Effective Date	**6/5/2012**
Test Code	**2418**
Instructions	1. Specimens should be collected early in the acute phase of infection. The chance of viral recovery is best during the first 3 days after onset and is greatly reduced beyond 5 days with many viruses. 2. Source of specimen is required, please include on requisition. 3. Place the following specimens into: a. sterile leak proof container: CSF, body fluids, urine, semen, saliva, biopsy or tissues, and bone marrow. b. viral transport media (M4, etc): respiratory samples (bronchial, lung, throat, nasal) 4. Unacceptable specimens: Stool, whole blood, **sputum**, wooden swabs, and calcium alginate. 5. All specimens except bone marrow, fluids and semen held more than 72 hours must be frozen at -70C (not -20C) or on dry ice. Do not freeze at -20C. Virus loses infectivity. 6. Ship specimens on cold pack or on dry ice. 7. M4 transport media (M4) and dacron-tipped swabs with plastic or fine-wire shafts available for use with M4 are provided. Please call Client Services, 800-421-4449 to request media.

<table>
<tr><th colspan="2">Erythropoietin</th></tr>
<tr><td>Clinical Significance</td><td>Erythropoietin is produced primarily by the kidney. Renal production of EPO is regulated by changes in oxygen availability. Under conditions of hypoxia, the level of EPO in the circulation increases and this leads to increased production of red blood cells. Primary polycythemias, or polycythemia vera, are caused by EPO-independent growth of erythrocytic progenitors from abnormal bone marrow stem cells and in most cases decreased levels of EPO are found in these patients. Conversely, various types of secondary polycythemias are associated with the production of elevated levels of EPO. The overproduction of EPO may be an adaptive response associated with conditions that produce tissue hypoxia, such as living at a high altitude, chronic obstructive pulmonary disease, cyanotic heart disease, sleep apnea, high oxygen affinity hemoglobinopathy, smoking, or localized renal hypoxia. In other instances, elevated EPO levels are the result of production by neoplastic cells. Cases of increased EPO have been reported in patients with renal carcinomas, polycystic kidney disease, Wilm's tumors, hepatomas, liver carcinomas, cerebellar hemangioblastomas, adrenal gland tumors and leiomyomas.</td></tr>
<tr><td>Effective Date</td><td>6/5/2012</td></tr>
<tr><td>Test Code</td><td>1160</td></tr>
<tr><td>Instructions</td><td>Transport at room temperature

Rejection Criteria: Gross hemolysis or plasma.

Due to diurnal variation, it is recommended that specimens be collected between 7:30 am and noon.</td></tr>
<tr><td>Specimen Stability</td><td>Room temperature: 10 days
Refrigerated: 18 days
Frozen: 28 days</td></tr>
<tr><td>Reference Range</td><td>
<table>
<tr><th></th><th>Male (mIU/mL)</th><th>Female (mIU/mL)</th></tr>
<tr><td><1 yr</td><td>not established</td><td>not established</td></tr>
<tr><td>1-3 yr</td><td>1.7-17.9</td><td>2.1-15.9</td></tr>
<tr><td>4-6 yr</td><td>3.5-21.9</td><td>2.9-8.5</td></tr>
<tr><td>7-9 yr</td><td>1.0-13.5</td><td>2.1-8.2</td></tr>
<tr><td>10-12 yr</td><td>1.0-14.0</td><td>1.1-9.1</td></tr>
<tr><td>13-15 yr</td><td>2.2-14.4</td><td>3.8-20.5</td></tr>
<tr><td>16-18 yr</td><td>1.5-15.2</td><td>2.0-14.2</td></tr>
<tr><td>>18 yr</td><td>2.6-18.5</td><td>2.6-18.5</td></tr>
</table>
</td></tr>
<tr><td>Methodology</td><td>Immunoassay</td></tr>
</table>

<table>
<tr><th colspan="2">Hepatitis Autoimmune EvaluatR™ PLUS</th></tr>
<tr><td>Message</td><td>Replaces HCV bDNA result items with HCV RT-PCR components.</td></tr>
<tr><td>Effective Date</td><td>6/5/2012</td></tr>
<tr><td>Test Code</td><td>5906</td></tr>
<tr><td>Instructions</td><td>Separation Tubes or in two sterile tubes using Plasma in EDTA (Lavender-top) or a (White-top) PPT Vacutainer(TM) plasma preparation tube. Separate plasma from whole blood within 6 hours of collection by centrifugation at 800 to 1600 x g for 20 minutes at room temperature. Transfer the plasma from each tube into a properly identified, polypropylene screw cap vial and ship frozen. Please note: Plasma must be removed from centrifuged PPT tubes and transferred to specified screw cap vials and submitted frozen. Specimens will no longer be acceptable if plasma is still in original collection tube, EVEN IF SEPARATED BY CENTRIFUGATION. Specimens collected using heparin as the anticoagulant are unsuitable for this test.</td></tr>
<tr><td>Specimen Stability</td><td>Plasma PPT Tube
Refrigerated - 72 hour(s) / Frozen - 42 Day(s)
Plasma EDTA
Refrigerated - 72 hour(s) / Frozen - 42 Day(s)</td></tr>
<tr><td>Reference Range</td><td>Replace component ranges: HCV RNA Quantitative bDNA & HCV RNA (log 10) with

<table>
<tr><td>HCV RNA PCR</td><td><43</td><td>IU/mL</td><td>RT-PCR</td></tr>
</table>
</td></tr>
</table>

	HCV RNA PCR (LOG 10)	**<1.63**	**log 10 IU/mL**	**CALC**

CPU Mappings

Result Code	Result Name
200357	**HCV RNA PCR**
210944	**HCV RNA PCR (LOG 10)**

Selenium	
Clinical Significance	Selenium is an element of parental nutrition. Monitoring the Selenium concentration is useful in assessing parental nutrition, especially recent uptake. Concentrations are also monitored in children with propionic acidemia who require special diets with supplements.
Effective Date	**6/5/2012**
Test Code	**4875**
Specimen Requirements	2 **(0.7)** mL
Reject Criteria	Hemolysis
Instructions	Centrifuge serum or plasma specimens within 1 hour of collection. Immediately separate serum and plasma specimens from the cells into trace element collection vial(s).
Transport Temperature	Refrigerated
Specimen Stability	**Ambient: 8 hours** **Refrigerated: 14 Days** **Frozen: 30 Days**

TSH	
Effective Date	**6/5/2012**
Test Code	**3250**
Reference Range	**First Trimester 0.26 - 2.66 mIU/L** **Second Trimester 0.55 - 2.73 mIU/L** **Third Trimester 0.43 - 2.91 mIU/L**

Tests Affected

Test Codes:	Name:
2016	Infertility: Endocrine Evaluation (Female)
3060	Thyroid Antibodies Evaluation
3072	Thyroid Antibodies Evaluation
3250SR	Thyroid Stimulating Hormone w/Serial Report
1091	Thyroid Stimulating Immunoglobulins with TSH
1090	Thyrotropin Receptor Autoantibody with TSH
3074	Thyroid Panel, Hypothyroidism

Redirects

Activated Protein C Resistance	
Clinical Significance	To screen for APC-R associated with venous thromboembolic disorders.
Effective Date	**6/5/2012**
Former Test Code	*5900*
Test Code	**22**
Reject Criteria	Hemolysis, Thawed Plasma, Received room temperature, Received refrigerated, Clotted specimen, Serum
Instructions	Separate platelet poor plasma. Transport and store frozen on dry ice. Hemolyzed specimens are not acceptable.
Transport Temperature	Plasma: Frozen preferred; Room temperature unacceptable; Refrigerated unacceptable
Specimen Stability	**Room temperature: 1 Hour** **Refrigerated: 4 Hours** Frozen: **6 Months**
Set-up/Analytic Time	Sets up **3** days a week; Report available: 2 days
Reference Range	APC Resistance (UOM ratio) NORMAL: >2.1 BORDERLINE: 1.6-2.1 ABNORMAL: <1.6
Always Message	Borderline values (i.e. ratios of 1.6-2.1) should be repeated if clinically warranted or followed up with genetic testing of R506Q. Any patient with an abnormal value (i.e. ratio <1.6) should have a Factor V Leiden R506Q mutation analysis performed for confirmation and genetic counseling.
Methodology	RVVT Based Clot Assay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **85986710** / **APC Resistance**

Activated Protein C Resistance with Reflex to Factor V (Leiden) Mutation	
Effective Date	**6/5/2012**
Former Test Name	*Activated Protein C Resistance w/reflex Factor V GenotypR™*
Former Test Code	*5901*
Test Code	**19704**
Specimen Requirements	2 mL **(1.0)** frozen Plasma in 3.2% Sodium Citrate (lt. blue-top) and **4 mL (2.0)** frozen Whole blood in EDTA (lavender-top) or in EDTA (royal blue-top) or in ACD solution B (yellow-top)
Reject Criteria	Hemolysis, Lipemia
Instructions	Platelet-poor plasma: Centrifuge light blue-top tube for 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcL). Freeze immediately and ship on dry ice. Whole Blood: Preferred shipping temperature is frozen, but room temperature shipping is acceptable.
Specimen Stability	Plasma: Room temperature: **1 Hour** Refrigerated: **4 Hours**

	Frozen: **6 Months** Whole blood: Room temperature: **8 Days** Refrigerated: **8 Days** Frozen: **30 Days**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **26703** / **APC Resistance** **4600** / **FACTOR V (LEIDEN)** **30034** / **Shared Assay Components**

Antiphospholipid Antibody Panel	
Effective Date	**6/5/2012**
Former Test Name	*Antiphospholipid Syndrome EvaluatR™*
Former Test Code	*1081*
Test Code	**9759**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **27752** / **Interpretation** **3678** / **B2-Glycoprotein I (IgG) Ab** **3749** / **B2-Glycoprotein I (IgM) Ab** **3813** / **B2-Glycoprotein I (IgA) Ab** **3895** / **Phos. Serine Ab IgA** **280** / **Phos.Serine Ab IgG** **8563** / **Phos.Serine Ab IgM** **45000500** / **Cardiolipin Ab (IgM)** **45000600** / **Cardiolipin Ab (IgA)** **45000400** / **Cardiolipin Ab (IgG)** **27091** / **dRVVT Screen** **Reflex Confirm** **27703** / **dRVVT Confirm** **Reflex dRVVT 1:1 Mix** **30129** / **dRVVT 1:1 Mix** **30131** / **dRVVT Mix Interpretation**

Antithrombin III Activity	
Clinical Significance	Previously referred to as "antithrombin III," antithrombin is an inhibitor of several coagulation factors. Deficiency is

	associated with hypercoagulation (increased risk of venous thrombosis). Concentrations may be decreased with liver disease, nephrotic syndrome, and other medical conditions.
Effective Date	**6/5/2012**
Former Test Name	*Antithrombin III Functional*
Former Test Code	*5951*
Test Code	**216**
Specimen Requirements	1 mL (0.5) frozen platelet-poor plasma collected in 3.2% sodium citrate (light blue-top) tube
Reject Criteria	Hemolysis, Thawed Plasma
Instructions	**Platelet Poor Plasma:** Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Freeze immediately and ship on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: **30 days**
Set-up/Analytic Time	Set up: Tues-Sat p.m.; Report available: 2 to 4 days
Reference Range	**80-120** % normal
Always Message	The major differential diagnosis of a hereditary ATIII deficiency includes consumption (i.e. recent thrombosis or DIC), heparin therapy, and nephrotic range proteinuria. An elevated ATIII is not clinically significant.
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **31000100** / **Antithrombin III Activity**

Antithrombin III Activity and Antigen	
Effective Date	**6/5/2012**
Former Test Name	*Antithrombin III Evaluation*
Former Test Code	*5952*
Test Code	**7017**
Specimen Requirements	**1 mL (0.5)** plasma collected in a 3.2% Sodium Citrate (lt. blue-top) tube [x2]
Reject Criteria	Thawed Plasma
Instructions	**Do not thaw**. Hemolyzed specimens are not acceptable. Refer to Quest Diagnostics Nichols Institute Directory of Services under Specimen Collection section, Coagulation Testing for further information on specimen processing. Platelet Poor Plasma:Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Freeze immediately and ship on dry ice**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: **21 days**
Reference Range	See Laboratory Report
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name**

31000100	**Antithrombin III Activity**
752	**Antithrombin III, Antigen**

Antithrombin III Antigen	
Clinical Significance	Previously referred to as "antithrombin III," antithrombin is an inhibitor of several coagulation factors. Patients with low concentrations of Antithrombin Antigen may have a hereditary or acquired prothrombotic state. The Antigen test differentiates a Type I from Type II deficiency.
Effective Date	**6/5/2012**
Former Test Name	*Antithrombin III Evaluation*
Former Test Code	*3253*
Test Code	**5158**
Specimen Requirements	**1 mL (0.5)** plasma collected in a 3.2% Sodium Citrate (lt. blue-top) tube
Instructions	Platelet Poor Plasma: Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Freeze immediately and ship on dry ice**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: **21 days**
Set-up/Analytic Time	Set up: 2 days a week p.m.; Report available: 2 days
Reference Range	See Laboratory Report
Methodology	**Fixed Rate Time Nephelometry**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **752** / **Antithrombin III, Antigen**

Beta-2-Glycoprotein I (Beta-2-GPI) IgA Autoantibodies	
Clinical Significance	Beta-2-Glycoprotein 1, apolipoprotein H, is a cofactor in antiphospholipid antibody binding and is the critical antigen in the antiphospholipid antibody syndrome. Beta-2-Glycoprotein 1 Antibody is more specific than Cardiolipin Antibody that may express reactivity in patients with syphilis and other infectious diseases
Effective Date	**6/5/2012**
Former Test Name	*Beta-2-Glycoprotein I (Beta-2-GPI) IgA Autoabs*
Former Test Code	*1184*
Test Code	**36552**
Specimen Requirements	1 mL (0.5 mL) plasma collected in 3.2% sodium citrate (lt. blue-top) tube Alternate: Serum
Reject Criteria	Hemolysis, Lipemia
Instructions	**Plasma:** Centrifuge light blue-top tube 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Serum:** Centrifuge tube 15 minutes at approximately 1500 g within 60 minutes of collection.

Transport Temperature	Room temperature
Specimen Stability	Room temperature: **5 days** Refrigerated: **14 days** Frozen: **30 days**
Set-up/Analytic Time	Set up: 6 days a week a.m.; Report available: 4-5 days
Reference Range	**B2-Glycoprotein I (IgA) Ab** — **≤20 SAU**
Methodology	Immunoassay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code**: **3813** — **Result Name**: **B2-Glycoprotein I (IgA) Ab**

Beta-2-Glycoprotein I (Beta-2-GPI) IgG Autoantibodies	
Clinical Significance	Beta-2-Glycoprotein 1, apolipoprotein H, is a cofactor in antiphospholipid antibody binding and is the critical antigen in the antiphospholipid antibody syndrome. Beta-2-Glycoprotein 1 Antibody is more specific than Cardiolipin Antibody that may express reactivity in patients with syphilis and other infectious diseases
Effective Date	**6/5/2012**
Former Test Name	*Beta-2-Glycoprotein I (Beta-2-GPI) IgG Autoabs*
Former Test Code	*1182*
Test Code	**36554**
Specimen Requirements	1 mL (0.5 mL) plasma collected in 3.2% sodium citrate (lt. blue-top) tube Alternate: Serum
Reject Criteria	Hemolysis, Lipemia
Instructions	**Plasma:** Centrifuge light blue-top tube 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Serum:** Centrifuge tube 15 minutes at approximately 1500 g within 60 minutes of collection.
Transport Temperature	Room temperature
Specimen Stability	Room temperature: **5 days** Refrigerated: **14 days** Frozen: **30 days**
Set-up/Analytic Time	Set up: 6 days a week a.m.; Report available: 4-5 days
Reference Range	**B2-Glycoprotein I (IgG) Ab** — **≤20 SGU**
Methodology	Immunoassay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code**: **3678** — **Result Name**: **B2-Glycoprotein I (IgG) Ab**

Beta-2-Glycoprotein I (Beta-2-GPI) IgG, IgM & IgA Autoantibodies	
Clinical Significance	Beta-2-Glycoprotein 1, apolipoprotein H, is a cofactor in antiphospholipid antibody binding and is the critical antigen in the antiphospholipid antibody syndrome. Beta-2-Glycoprotein 1 Antibody is more specific than Cardiolipin Antibody that may express reactivity in patients with syphilis and other infectious diseases
Effective Date	**6/5/2012**
Former Test Name	*Beta-2-Glycoprotein I (Beta-2-GPI) IgG, IgM & IgA*
Former Test Code	*1083*
Test Code	**30340**
Specimen Requirements	3 mL (1.5 mL) plasma collected in 3.2% sodium citrate (lt. blue-top) tube Alternate: Serum
Reject Criteria	Hemolysis, Lipemia
Instructions	**Plasma:** Centrifuge light blue-top tube 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Serum:** Centrifuge tube 15 minutes at approximately 1500 g within 60 minutes of collection.
Transport Temperature	Room temperature
Specimen Stability	Room temperature: **5 days** Refrigerated: **14 days** Frozen: **30 days**
Set-up/Analytic Time	Set up: 6 days a week a.m.; Report available: 4-5 days
Reference Range	**B2-Glycoprotein I (IgG) Ab**: **≤20 SGU** **B2-Glycoprotein I (IgA) Ab**: **≤20 SAU** **B2-Glycoprotein I (IgM) Ab**: **≤20 SMU**
Methodology	Immunoassay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**3678**: **B2-Glycoprotein I (IgG) Ab** **3749**: **B2-Glycoprotein I (IgM) Ab** **3813**: **B2-Glycoprotein I (IgA) Ab**
Additional Information	Factor VIII inhibitors may cause a false-positive lupus anticoagulation test. The temporary presence of antiphospholipid antibodies may accompany infections or certain drugs.

Beta-2-Glycoprotein I (Beta-2-GPI) IgM Autoantibodies	
Clinical Significance	Beta-2-Glycoprotein 1, apolipoprotein H, is a cofactor in antiphospholipid antibody binding and is the critical antigen in the antiphospholipid antibody syndrome. Beta-2-Glycoprotein 1 Antibody is more specific than Cardiolipin Antibody that may express reactivity in patients with syphilis and other infectious diseases
Effective Date	**6/5/2012**
Former Test Name	*Beta-2-Glycoprotein I (Beta-2-GPI) IgM Autoabs*
Former Test Code	*1183*

Test Code	**36553**
Specimen Requirements	1 mL (0.5 mL) plasma collected in 3.2% sodium citrate (lt. blue-top) tube Alternate: Serum
Reject Criteria	Hemolysis, Lipemia
Instructions	**Plasma:** Centrifuge light blue-top tube 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Serum:** Centrifuge tube 15 minutes at approximately 1500 g within 60 minutes of collection.
Transport Temperature	Room temperature
Specimen Stability	Room temperature: **5 days** Refrigerated: **14 days** Frozen: **30 days**
Set-up/Analytic Time	Set up: 6 days a week a.m.; Report available: 4-5 days
Reference Range	**B2-Glycoprotein I (IgM) Ab** — **≤20 SMU**
Methodology	Immunoassay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **3749** / **B2-Glycoprotein I (IgM) Ab**

Cardiolipin Antibodies (IgG)	
Effective Date	**6/5/2012**
Former Test Name	*Cardiolipin IgG Autoantibodies*
Former Test Code	*3372*
Test Code	**4662**
Reference Range	**Cardiolipin IgG (GPL U/mL)** <10 — Negative 10-15 — Equivocal 16-40 — Positive - Uncertain risk factor; may be reactive >40 — Positive - Risk factor for thrombosis and pregnancy loss
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** 45000400 / Cardiolipin Ab (IgG)

Cardiolipin Antibodies (IgG, IgA, IgM)	
Effective Date	**6/5/2012**

Former Test Name	*Cardiolipin IgG, IgM & IgA Autoantibodies*
Former Test Code	*3371*
Test Code	**7352**
Reference Range	

Cardiolipin IgG (GPL U/mL)	
<10	Negative
10-15	Equivocal
16-40	Positive - Uncertain risk factor; may be reactive
>40	Positive - Risk factor for thrombosis and pregnancy loss

Cardiolipin IgM (MPL U/mL)	
<10	Negative
10-15	Equivocal
16-40	Positive - Uncertain risk factor; may be reactive
>40	Positive - Risk factor for thrombosis and pregnancy loss
Cardiolipin (IgA) APL U/mL	
<10	Negative
10-15	Equivocal
>15	Positive

Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	

Result Code	**Result Name**
45000400	Cardiolipin Ab (IgG)
45000500	Cardiolipin Ab (IgM)
45000600	Cardiolipin Ab (IgA)

Cardiolipin Antibodies (IgG, IgM)	
Effective Date	**6/5/2012**
Former Test Code	*3375*
Test Code	**36333**
Reference Range	

Cardiolipin IgG (GPL U/mL)	
<10	Negative
10-15	Equivocal
16-40	Positive - Uncertain risk factor; may be reactive
>40	Positive - Risk factor for thrombosis and pregnancy loss

	Cardiolipin IgM (MPL U/mL) <10 Negative 10-15 Equivocal 16-40 Positive - Uncertain risk factor; may be reactive >40 Positive - Risk factor for thrombosis and pregnancy loss
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** 45000400 Cardiolipin Ab (IgG) 45000500 Cardiolipin Ab (IgM)

Cardiolipin Antibody (IgA)	
Effective Date	**6/5/2012**
Former Test Name	*Cardiolipin IgA Autoantibodies*
Former Test Code	*3374*
Test Code	**4661**
Reference Range	**Cardiolipin IgA (APL U/mL)** <10 Negative 10-15 Equivocal >15 Positive
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** 45000600 Cardiolipin Ab (IgA)

Cardiolipin Antibody (IgM)	
Effective Date	**6/5/2012**
Former Test Name	*Cardiolipin IgM Autoantibodies*
Former Test Code	*3373*
Test Code	**4663**
Reference Range	**Cardiolipin IgM (MPL U/mL)** <10 Negative 10-15 Equivocal 16-40 Positive - Uncertain risk factor; may be reactive

	>40 | Positive - Risk factor for thrombosis and pregnancy loss
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** | **Result Name** 45000500 | Cardiolipin Ab (IgM)

DRVVT Screen w/Rfl DRVVT Confirm & DRVVT 1:1 Mix	
Clinical Significance	The dilute Russell Viper Venom time integrated test is a sensitive method for determining the presence of a Lupus Anticoagulant and/or presence of a phospholipid antibody. A positive test, when confirmed, makes the diagnosis of Lupus anticoagulant which may be associated with arterial or venous thrombosis.
Effective Date	**6/5/2012**
Former Test Code	*15780*
Test Code	**15780**
Specimen Requirements	2 mL **(0.5)** plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Set-up/Analytic Time	Set up: 6 days a week; Report available: 2-3 days
Reference Range	dRVVT Screen: < OR = 45 seconds dRVVT Confirm: Negative dRVVT 1:1 Mix: Corrected dRVVT Mix Interpretation: See laboratory report
Methodology	Photo-optical Clot Detection, Calculation
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

Factor VIII Activity, Clotting	
Clinical Significance	This test is useful to evaluate a prolonged aPTT. The most common form of hemophilia is caused by deficiency of factor VIII. Hemophilia A is an x-linked disorder affecting between 1 in 5,000 to 10,000 males.
Effective Date	**6/5/2012**
Former Test Name	*Factor VIII Activity*
Former Test Code	*1947*
Test Code	**347**
Specimen Requirements	**1 mL (0.5**) plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Hemolysis,Thawed plasma, Received room temperature, Received refrigerated, Received thawed
Instructions	Platelet-poor plasma: Centrifuge light blue-top tube for 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcL). Freeze immediately and ship on dry ice. Note: Storage of whole blood at refrigerated temperatures prior to processing may lead to cryoprecipitate formation and falsely low Factor VIII and von Willebrand Factor studies.
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen -20° C: 14 days **Frozen -70°C: 1 year**
Set-up/Analytic Time	Set up: **6** days a week a.m.; Report available: 1 day
Reference Range	50-**180** % normal

Methodology	Photometric Clot Detection
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30016700** / **Coag Factor VIII Activity**

Fibrinogen Activity, Clauss	
Effective Date	**6/5/2012**
Former Test Code	*1426*
Test Code	**461**
Specimen Requirements	**1 mL (0.5**) plasma collect in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Gross hemolysis, Thawed plasma, Received room temperature, Received refrigerated
Set-up/Analytic Time	Set up: **Wed, Fr**i; Report available: Next day
Methodology	Photo-Optical Clot Detection
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30032100** / **Fibrinogen Activity,Clauss**

Heparin-Induced Platelet Antibody	
Clinical Significance	Helpful in the Diagnosis of heparin-induced thrombocytopenia. A positive result is indicative of the presence of heparin-induced antibodies; however, false positives may occur due to the presence of immune complexes or other immunoglobulin aggregates. A negative result suggests the absence of heparin-induced antibodies; low titer, low avidity antibodies may not be detected. Other clinical and laboratory findings should be used in conjunction with this test result prior to diagnosing heparin-induced thrombocytopenia.
Effective Date	**6/5/2012**
Former Test Name	*Heparin-PF4 Antibodies (HIT)*
Former Test Code	*5945*
Test Code	**414**
Specimen Stability	Room temperature: Unacceptable **Refrigerated: 48 hours** **Frozen: 6 months**
Set-up/Analytic Time	Set up: Daily; Report available: Next day
Reference Range	Negative Patient O.D. http://education.questdiagnostics.com/faq/HIT-PF4-SRA
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30070810** / **Heparin-Induced PLT AB** **30070820** / **Patient O.D.**

HLA-B27 Antigen	
Clinical Significance	HLA-B27 is found in 90% of patients with ankylosing spondylitis and 80% in Reiter's disease. Ankylosing spondylitis affects 1 in 1000 Caucasians. Ankylosing spondylitis is 10 times more common among individuals with HLA-B27 compared to individuals without this antigen.
Effective Date	**6/5/2012**
Former Test Name	*HLA: B27 Typing*
Former Test Code	*1350*
Test Code	**528**
Reject Criteria	Received frozen
Specimen Stability	**Whole blood** Room temperature: 5 Days **Refrigerated: 5 Days** Frozen: Unacceptable
Always Message	HLA-B27 antigen is either present or absent (HLA- B27 positive sample or HLA-B27 negative sample). There are some disease states associated with positive HLA-B27 results. However, a HLA-B27 positive sample does not indicate the presence of disease. The following chart identifies the probability of HLA-B27 positive results, separated by race and disease. Group Positive(%) Caucasians Healthy controls 5-14 Ankylosing Spondylitis 90-100 Endemic Reiter's Syndrome 90-100 Psoriatic Arthropathy - Without sacroiliitis 18-22 - With sacroiliitis 50-60 Juvenile Chronic Polyarthropathy - Without sacroiliitis 15-25 - With sacroiliitis 50-70 Inflammatory Bowel Disease: - Without sacroiliitis 6 - With sacroiliitis 50-70 HLA Healthy Controls 1-4 Ankylosis Spondyliatis 50-60 Reiter's Syndrome 50-60 Japanese Healthy Controls <1 Ankylosis Spondyliatis 60
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** 40016000 / HLA-B27 Antigen

Lupus Anticoagulant Evaluation with Reflex	
Effective Date	**6/5/2012**
Former Test Name	*Lupus Anticoagulant: Screen 1*
Former Test Code	*5963*
Test Code	**9762**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30035900** / **Lupus Anticoagulant** / **30035205** / **PTT-LA Screen** **30035850** / **Hexagonal Phase Confirm** **30035405** / **dRVVT Screen** **30035350** / **dRVVT Confirm** **30035360** / **dRVVT 1:1 Mix** **30035380** / **dRVVT Mix Interpretation**

	45000600 — **Cardiolipin Ab (IgA)** **45000400** — **Cardiolipin Ab (IgG)** **45000500** — **Cardiolipin Ab (IgM)**
Additional Information	See individual tests for specimen requirements and reference ranges.

Lymphocyte Subset Panel 1	
Effective Date	**6/5/2012**
Former Test Code	*71978*
Test Code	**71978**
Reference Range	See Laboratory Report
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

Lymphocyte Subset Panel 2	
Clinical Significance	Immunophenotypic analysis may assist in evaluating cellular immunocompentency in suspected cases of primary and secondary immunodeficiency states.
Effective Date	**6/5/2012**
Former Test Code	*36420*
Test Code	**36420**
Reject Criteria	Received frozen
Instructions	**Do not freeze. Do not transfer whole blood to M4.** Submit the preferred EDTA tubes at room temperature. Volumes less than 1 mL should be submitted in a Pediatric EDTA tube.
Set-up/Analytic Time	Set up: **Mon-Sun**,; Report available: Next day
Reference Range	See Laboratory Report
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

Lymphocyte Subset Panel 3	
Effective Date	**6/5/2012**
Former Test Code	*71958*
Test Code	**71958**
Reference Range	See Laboratory Report
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

Lymphocyte Subset Panel 4	
Effective Date	**6/5/2012**
Former Test Code	*79248*
Test Code	**79248**
Reference Range	See Laboratory Report
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

Lymphocyte Subset Panel 5	
Effective Date	**6/5/2012**
Former Test Code	*83608*
Test Code	**83608**
Reference Range	See Laboratory Report
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

Mixing Study	
Effective Date	**6/5/2012**
Former Test Name	*PT and PTT-LA Mixing Studies*
Former Test Code	*3890*
Test Code	**8922**
Specimen Requirements	**3 mL (1.5)** plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Thawed plasma, Clotted sample, Serum, 3.8% sodium citrate
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: **7 days** **-70°: 90 days**
Set-up/Analytic Time	Set up: 5 days a week; Report available: 2 days
Reference Range	**Interpretation:** — **See laboratory report** **Prothrombin Time:** — **9.0-11.5 sec** **PT Mix:** — **<OR=11.5 sec** **PTT-LA:** — **<OR=40 sec** **PTT-LA Mix:** — **See laboratory report** **Incubated PTT-LA Mix:** — **See laboratory report**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**26113** — **Interpretation** **26103** — **Prothrombin Time** **26104** — **PT Mix** **26106** — **PTT-LA** **26107** — **PTT-LA Mix** **26109** — **Incubated PTT-LA Mix**

Partial Thromboplastin Time, Activated (aPTT)	
Clinical Significance	A screening test for deficiencies of plasma coagulation factors other than Factor VII and XIII. The test is also used to

	monitor patients on heparin therapy.
Effective Date	**6/5/2012**
Former Test Name	*Activated Partial Thromboplastin Time (APTT)*
Former Test Code	*3895*
Test Code	**763**
Specimen Requirements	**1 mL (0.3)** plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Hemolysis, Thawed plasma, Received room temperature, Received refrigerated, Clotted, Improper blood to citrate ratio, High hematocrit
Instructions	**Do not thaw.** Hemolyzed specimens are not acceptable. Refer to Quest Diagnostics Nichols Institute Directory of Services under Specimen Collection section, Coagulation Testing for further information on specimen processing.
Specimen Stability	**Room temperature: 2 hours** **Refrigerated: 4 hou**rs Frozen -20° C: 14 days **Frozen -70° C: 6 months**
Always Message	**The therapeutic range for unfractionated heparin therapy is 1.5-2.5 times the mean of the reference interval. In patients in whom there is an apparent heparin resistance, a heparin level by an anti-Xa method is available.**
Methodology	Photo-Optical Clot Detection
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30051900** / **Thromboplastin Time**

Protein C & Protein S, Functional	
Clinical Significance	This panel screens for two common deficiencies associated with thrombotic disease. If a deficiency is identified, additional testing is recommended for classification.
Effective Date	**6/5/2012**
Former Test Name	*Protein C & S Activity*
Former Test Code	*5992*
Test Code	**39457**
Specimen Requirements	1 mL plasma collected in 3.2% sodium citrate (light blue-top) tube
Reject Criteria	Thawed plasma
Instructions	Draw blood in (light blue-top) tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within 1 hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen -20° C: 14 days **Frozen -70° C: 1 year**
Reference Range	**Protein C Activity** / 70-**180** % normal **Protein S Activity** / Males / **70-150 % normal**

	Females: **60-140 % normal**
Always Message	Decreased levels of protein C activity may be found in hereditary deficiency,treatment with oral anticoagulants, liver disease, D.I.C. and post surgery. An elevated protein C activity is not clinically significant. Only deficiencies are associated with an increased thrombotic risk. Decreased levels of Protein S activity may be found in patients with hereditary deficiency, warfarin therapy, vitamin k deficiency, liver disease, DIC, or recent thrombosis as well as after surgery. In addition, it may be physiologic in pregnancy. An elevated Protein S activity is not clinically significant. Only deficiencies are associated with an increased thrombotic risk.
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30021100** / **Protein C Activity** **30021400** / **Protein S Activity**

Protein C Activity	
Clinical Significance	The Protein C Activity done by a RVV type matrix coagulation assay is more sensitive to subclinical vitamin K deficiency, hepatic failure, coumadin and DIC. Some genetic mutations of protein C will be missed by the chromogenic assay which will be satisfactorily detected with the protein C clottable assay system. Alternatively, chromogenic assay may be more reliable to measure half-life and recovery of protein C concentrates.
Effective Date	**6/5/2012**
Former Test Code	*3836*
Test Code	**1777X**
Specimen Requirements	**1 mL (0.5)** plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Hemolysis, Thawed plasma, Received room temperature, Received refrigerated, Received thawed
Instructions	Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). Freeze immediately and transport on dry ice.
Set-up/Analytic Time	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: 14 days **-70°: 1 year**
Reference Range	70-**180** % normal
Always Message	Decreased levels of protein C activity may be found in hereditary deficiency,treatment with oral anticoagulants, liver disease, D.I.C. and post surgery. An elevated protein C activity is not clinically significant. Only deficiencies are associated with an increased thrombotic risk.
Methodology	**Clotting Assay**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30021100** / **Protein C Activity**

Protein C Activity and Antigen	
Clinical Significance	Comprehensive test assesses the total level of protein and its functional activity in determining Protein C deficiency,

	which is strongly prothrombotic, and may require longterm anticoagulation therapy. In the presence of low Protein C Activity, Protein C Antigen helps to confirm and to classify Protein C Deficiency as Type I or Type II. Protein C is a highly thrombophilic protein.
Effective Date	**6/5/2012**
Former Test Name	*Protein C Evaluation 1*
Former Test Code	*5933*
Test Code	**8757**
Specimen Requirements	1 mL (0.5) plasma collected in 3.2% sodium citrate (lt. blue-top) tube [x2]
Reject Criteria	Thawed plasma
Instructions	Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: 14 days **-70°: 1 year**
Reference Range	**Protein C Activity**: 70-**180** % normal **Protein C Antigen**: **70**-140 % normal
Always Message	Decreased levels of protein C activity may be found in hereditary deficiency,treatment with oral anticoagulants, liver disease, D.I.C. and post surgery. An elevated protein C activity is not clinically significant. Only deficiencies are associated with an increased thrombotic risk. Decreased levels of Protein C antigen may be found in congenital deficiency, treatment with oral anticoagulants, liver disease, D.I.C. and post surgery.
Methodology	**Clotting Assay**, Immunoassay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30021100** / **Protein C Activity** **30021300** / **Protein C Antigen**

Protein C Antigen	
Clinical Significance	Protein C Antigen levels may be decreased with congenital deficiency, treatment with oral anticoagulants, liver disease, DIC, and post-surgery.
Effective Date	**6/5/2012**
Former Test Code	*5932*
Test Code	**4948**
Reject Criteria	Hemolysis, Thawed plasma, Received room temperature, Received refrigerated
Instructions	Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**

Reference Range	**70**-140 % normal
Always Message	Decreased levels of Protein C antigen may be found in congenital deficiency, treatment with oral anticoagulants, liver disease, D.I.C. and post surgery.
Methodology	Immunoassay
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code**: **30021300** — **Result Name**: **Protein C Antigen**

Protein S Activity	
Clinical Significance	Protein S Activity is used to diagnose acquired and hereditary deficiencies of Protein S. Protein S deficiency is associated with increased risk of thrombosis.
Effective Date	**6/5/2012**
Former Test Code	*3837*
Test Code	**1779X**
Specimen Requirements	**1 mL (0.5)** plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Hemolysis, Thawed plasma, Received room temperature, Received refrigerated, Received thawed
Instructions	Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: **30 days** **-70°: 1 year**
Set-up/Analytic Time	Set up: 6 days a week p.m.; Report available: 3-4 days
Reference Range	**Males:** **70-150 % normal** **Females:** **60-140 % normal**
Always Message	Decreased levels of Protein S activity may be found in patients with hereditary deficiency, warfarin therapy, vitamin k deficiency, liver disease, DIC, or recent thrombosis as well as after surgery. In addition, it may be physiologic in pregnancy. An elevated Protein S activity is not clinically significant. Only deficiencies are associated with an increased thrombotic risk.
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code**: **30021400** — **Result Name**: **Protein S Activity**

Protein S Activity and Antigen, Total	
Effective Date	**6/5/2012**
Former Test Name	*Protein S Evaluation*
Former Test Code	*5938*

Test Code	**7039**
Specimen Requirements	**2 mL (1.0)** plasma collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Thawed plasma
Instructions	Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: **30 Days** **-70 Degrees: 1 Year**
Reference Range	**Protein S, Total Antigen:** 70-140 %normal **Protein S Activity:** **Male: 70-150 %normal** **Female: 60-140 %normal**
Always Message	Decreased levels of Protein S activity may be found in patients with hereditary deficiency, warfarin therapy, vitamin k deficiency, liver disease, DIC, or recent thrombosis as well as after surgery. In addition, it may be physiologic in pregnancy. An elevated Protein S activity is not clinically significant. Only deficiencies are associated with an increased thrombotic risk.
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30021600** / **Protein S, Total Antigen** **30021400** / **Protein S Activity**

Protein S Antigen, Free	
Clinical Significance	STA-LIA test Free Protein S is intended for quantitative determination of free Protein S using an Immuno-turbidimetric method.
Effective Date	**6/5/2012**
Former Test Code	*5935*
Test Code	**10170**
Reject Criteria	Thawed plasma
Instructions	Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen -20° C: **30 days** **Frozen -70° C: 1 year**
Set-up/Analytic Time	Set up: 2 days a week p.m.; Report available: 4-5 days
Units Of Measure	% Normal
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano

CPU Mappings	**Result Code** / **Result Name** **45995187** / **Protein S Antigen,Free**

Protein S Antigen, Total	
Clinical Significance	Antigen testing is appropriate when a functional activity deficiency is present. If low, Total Protein S Antigen assesses the Protein S deficiency as Type I or III (IIa).
Effective Date	**6/5/2012**
Former Test Code	*5937*
Test Code	**5165**
Reject Criteria	Hemolysis, Thawed plasma, Received room temperature, Received refrigerated, Received thawed
Instructions	Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen -20° C: **30 days** **Frozen -70° C: 1 year**
Set-up/Analytic Time	Set up: 3 days a week p.m.; Report available: 2 days
Units Of Measure	% Normal
Performing Site	Quest Diagnostics Nichols Institute, Valencia
CPU Mappings	**Result Code** / **Result Name** **30021600** / **Protein S, Total Antigen**

Prothrombin Time with INR	
Clinical Significance	Screening test for abnormalities of coagulation factors that are involved in the extrinsic pathway. Also used to monitor effects of Warfarin Therapy and to study patients with hereditary and acquired clotting disorders.
Effective Date	**6/5/2012**
Former Test Name	*Prothrombin Time*
Former Test Code	*3892*
Test Code	**8847**
Specimen Requirements	**1 mL plasma (0.5)** collected in 3.2% sodium citrate (lt. blue-top) tube
Reject Criteria	Hemolysis, Lipemia, Thawed plasma, Improper blood to citrate ratio, High hematocrit, Improper blood collection
Instructions	**Platelet Poor Plasma:** Centrifuge light blue-top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). **Freeze immediately and ship on dry ice.**
Specimen Stability	Room temperature: Unacceptable Refrigerated: Unacceptable Frozen: 14 days **-70°: 6 months**

Set-up/Analytic Time	Set up: 5 days a week p.m.; Report available: 1 day
Reference Range	**INR:** **Reference range** 0.9-1.1 **Moderate - intensity Warfarin therapy** 2.0-3.0 **Higher - intensity Warfarin therapy** 3.0-4.0 **Prothrombin Time:** 9.0-11.5 sec
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name**: **30040200** INR; **30039900** Prothrombin Time

Ristocetin Cofactor	
Clinical Significance	von Willebrand Disease is the most common hereditary bleeding disorder. von Willebrand Factor is necessary for platelet adhesion to injured endothelium. Ristocetin Cofactor is useful in assessing binding of von Willebrand Factor to platelet factor GP1b. When combined with other tests, results are useful in categorizing the type of von Willebrand Disease.
Effective Date	**6/5/2012**
Former Test Name	*Ristocetin Cofactor Function*
Former Test Code	*1871*
Test Code	**4459**
Reject Criteria	Hemolysis, Lipemia, Thawed plasma, Received room temperature, Received refrigerated
Instructions	Platelet-poor plasma: Centrifuge light blue-top tube for 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcL). Freeze immediately and ship on dry ice. Note: Storage of whole blood at refrigerated temperatures prior to processing may lead to cryoprecipitate formation and falsely low Factor VIII and von Willebrand Factor studies.
Specimen Stability	**Room temperature: 6 hours** Refrigerated: Unacceptable Frozen: **30 days**
Set-up/Analytic Time	Set up: **5** days a week a.m.; Report available: 1-3 days
Reference Range	**42-200** % normal
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name**: 3790 vWf: Ristocetin Co-Factor

T and B Cells, Total	
Clinical Significance	T cell deficiency is frequently associated with chronic, recurrent mucocutaneous candidiasis. B cell deficiency is frequently associated with recurrent, complicated or severe pyrogenic infections. Deficiencies of T and B cells are

	observed in many medical conditions. Often, more specific evaluations are required after a deficiency is identified.
Effective Date	**6/5/2012**
Former Test Name	*Lymphocyte Enumeration, T & B Cell*
Former Test Code	*1658*
Test Code	**39588**
Specimen Requirements	5 mL **(0.5)** whole blood collected in an EDTA (lavender-top) tube
Reject Criteria	Received frozen
Transport Temperature	**Do not freeze. Do not transfer whole blood to M4.** Submit the preferred EDTA tubes at room temperature. Volumes less than 1 mL should be submitted in a Pediatric EDTA tube.
Set-up/Analytic Time	Set up: Mon-Sun; Report available: Next day
Reference Range	See Laboratory Report
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	

Result Code	Result Name
WBC/LYMPHS	
10617	**Lymphocytes, Absolute**
PHENOTYPING	
10629	**CD19, Absolute**
10630	**CD19 Percentage**
10619	**CD3, Absolute**
10620	**CD3 Percentage**

Thrombin Clotting Time	
Effective Date	**6/5/2012**
Former Test Name	*Thrombin Time*
Former Test Code	*4210*
Test Code	**883**
Instructions	Collect plasma by carefully mixing 1 part 3.2% sodium citrate with 9 parts venous blood. Gently mix but do not shake. Centrifuge immediately at 1500g for 10 min., remove plasma using plastic pipette and place into plastic tube, cap and promptly freeze. (Refer to Quest Diagnostics Nichols Institute Reference Manual for more complete instructions.)
Always Message	The thrombin clotting time assay at Quest Diagnostics Nichols Institute was validated using adult plasma samples to establish the reference range; due to biochemical differences between neonatal fibrinogen and adult fibrinogen, evaluation of samples from neonatal patients is not recommended using this assay.
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	

Result Code	Result Name
6704	**Thrombin Clotting Time**

von Willebrand Factor Antigen

Clinical Significance	von Willebrand Disease is the most common hereditary bleeding disorder; it may also be acquired. von Willebrand Factor is necessary for platelet adhesion to injured endothelium. von Willebrand Factor Antigen is useful in assessing the quantity of von Willebrand Factor. When combined with other tests, results are useful in categorizing the type of von Willebrand Disease.
Effective Date	**6/5/2012**
Former Test Code	*1907*
Test Code	**4919X**
Instructions	Platelet-poor plasma: Centrifuge light blue-top tube for 15 minutes at approximately 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcL). Freeze immediately and ship on dry ice. Note: Storage of whole blood at refrigerated temperatures prior to processing may lead to cryoprecipitate formation and falsely low Factor VIII and von Willebrand Factor studies.
Specimen Stability	**Room temperature: 8 Hours** **Refrigerated: 24 Hours** Frozen: 30 Days
Set-up/Analytic Time	Sets up Sun, Mon, Tue, Wed, Thu; Reports in 1 to 3 days.
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **85991141** / **vWF Ag**

von Willebrand Panel	
Effective Date	**6/5/2012**
Former Test Name	*von Willebrand Profile*
Former Test Code	*5961*
Test Code	**9761**
Performing Site	Quest Diagnostics Nichols Institute, San Juan Capistrano
CPU Mappings	**Result Code** / **Result Name** **30016700** / **Factor VIII Activity** **85991141** / **vWF Ag** **3790** / **Ristocetin Co-Factor** **250** / **Thromboplastin Time**
Additional Information	Please see individual tests for specimen requirements and reference ranges.

Discontinued Tests

BAALC (Brain and Acute Leukemia, Cytoplasmic) UltraQuant®	
Message	Test discontinued due to low volume. There is no replacement available.
Effective Date	**6/5/2012**

Test Code	**5310**

Cardiovascular Thrombotic Risk AssessR™	
Message	Test discontinued due to low volume. Panel components may be ordered individually.
Effective Date	**6/5/2012**
Test Code	**5991**

CD16/56 Surface Marker	
Message	Suggested replacement test code 37400 Cell Surface Marker, Individual
Effective Date	**6/5/2012**
Test Code	**1687**

CD19 Surface Marker	
Message	Suggested replacement test code 37400 Cell Surface Marker, Individual
Effective Date	**6/5/2012**
Test Code	**1688**

CD3 Surface Marker	
Message	Suggested replacement test code 37400 Cell Surface Marker, Individual
Effective Date	**6/5/2012**
Test Code	**1683**

CD4 Surface Marker	
Message	Suggested replacement test code 37400 Cell Surface Marker, Individual
Effective Date	**6/5/2012**
Test Code	**1684**

CD8 Surface Marker	
Message	Suggested replacement test code 37400 Cell Surface Marker, Individual
Effective Date	**6/5/2012**
Test Code	**1685**

Factor VIII Inhibitor	
Message	Suggested replacement test code 40083 Factor VIII Inhibitor Panel
Effective Date	**6/5/2012**
Test Code	**1967**

Hereditary Thrombosis Screen A, No Heparin or Coumadin	
Message	Test discontinued due to low volume. Panel components may be ordered individually.
Effective Date	**6/5/2012**

Test Code	**5965**

HIV-1 RNA Quantitative, bDNA & CD4 Cell Count	
Message	Test discontinued due to low volume. There is no replacement available.
Effective Date	**6/5/2012**
Test Code	**9872**
Tests Affected	**Test Codes:** / **Name:** 9872SR / HIV-1 RNA Quantitative, bDNA & CD4 Cell Count w/Serial Report

Lupus Anticoagulant AssessR™	
Message	Suggested replacement test code 7079 Lupus Anticoagulant Evaluation with Reflex
Effective Date	**6/5/2012**
Test Code	**1910**

Lupus Anticoagulant: Hexagonal Phase	
Message	Suggested replacement test code 36573 Hexagonal Phase Neutralization
Effective Date	**6/5/2012**
Test Code	**1915**

Lupus Anticoagulant: Screen 2	
Message	Test discontinued due to low volume. Panel components may be ordered individually.
Effective Date	**6/5/2012**
Test Code	**5976**

Lupus Anticoagulant: Screen 3	
Message	Suggested replacement test code 7079 Lupus Anticoagulant Evaluation with Reflex
Effective Date	**6/5/2012**
Test Code	**5962**

Natural Killer Cell Quantitation	
Message	Suggested replacement test code 37088 Natural Killer Cells
Effective Date	**6/5/2012**
Test Code	**1872**

Platelet Associated Glycoprotein (Direct) Ab	
Message	Suggested replacement test code 10678 Platelet Glycoprotein Antibody
Effective Date	**6/5/2012**
Test Code	**6104**

Platelet Glycoprotein (Direct & Indirect) Abs	
Message	Suggested replacement test codes 5341Platelet Antibody, Indirect (IgG) and 10678 Platelet Glycoprotein Antibody
Effective Date	**6/5/2012**
Test Code	**6100**

Platelet Glycoprotein (Indirect) Autoabs	
Message	Suggested replacement test code 5341 Platelet Antibody, Indirect (IgG)
Effective Date	**6/5/2012**
Test Code	**6102**

Platelet Glycoprotein Ia/IIa Total Autoantibodies	
Message	Suggested replacement test code 5341 Platelet Antibody, Indirect (IgG)
Effective Date	**6/5/2012**
Test Code	**5957**

Platelet Glycoprotein Ib/Ix Total Autoantibodies	
Message	Suggested replacement test code 5341 Platelet Antibody, Indirect (IgG)
Effective Date	**6/5/2012**
Test Code	**5955**

Platelet Glycoprotein IIb/IIIa Total Autoantibodies	
Message	Suggested replacement test code 5341 Platelet Antibody, Indirect (IgG)
Effective Date	**6/5/2012**
Test Code	**5956**

Thrombotic Risk AssessR™	
Message	Test discontinued due to low volume. Panel components may be ordered individually.
Effective Date	**6/5/2012**
Test Code	**5990**

Thrombotic Risk Evaluation 1	
Message	Suggested replacement test code 11051 Thrombosis Panel
Effective Date	**6/5/2012**
Test Code	**5972**

Thrombotic Risk Evaluation 2	
Message	Test discontinued due to low volume. Panel components may be ordered individually.
Effective Date	**6/5/2012**
Test Code	**5971**

Thrombotic Risk Evaluation 3	
Message	Test discontinued due to low volume. Panel components may be ordered individually.
Effective Date	**6/5/2012**
Test Code	**5973**

von Willebrand Evaluation with Multimers	
Message	Suggested replacement test code 19790 von Willebrand Comprehensive Panel
Effective Date	**6/5/2012**
Test Code	**5981**

von Willebrand Evaluation without Multimers	
Message	Test discontinued due to low volume. Panel components may be ordered individually.
Effective Date	**6/5/2012**
Test Code	**5984**

von Willebrand Factor Multimers Panel	
Message	Suggested replacement test code 4919 von Willebrand Factor Antigen and 5168 von Willebrand Antigen, Multimeric Analysis
Effective Date	**6/5/2012**
Test Code	**1905**

von Willebrand Multimers	
Message	Suggested replacement test code 5168 von Willebrand Antigen, Multimeric Analysis
Effective Date	**6/5/2012**
Test Code	**1906**